

Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

1. KİMYASAL MADDEİN/PREPARATIN VE ŞİRKETİN/ÜSTLENENİN KİMLİKLERİ

1.1. Ürün Tanımlayıcı

Ürün ismi
Ethyl acetate

REACH Kayıt Numarası
01-2119475103-46-0003 (Celanese Chemicals Europe GmbH)
01-2119475103-46-0002 (Celanese Chemicals Ibérica, S.L.)

1.2. Maddenin veya karışımın ilgili tanımlı kullanımları ve karşı tavsiye edilen kullanımlar

Tanımlanmış kullanımları
Çözgen

Tavsiye edilmeyen kullanımları
Bilinmiyor

1.3. Güvenlik veri sayfası tedarikçisinin detayları

Celanese Chemicals Europe GmbH
Frankfurter Str. 111
D-61476 Kronberg/Ts.
Germany

Celanese Chemicals Ibérica, S.L.
Carretera N-340, Km 1155
Polígono Industrial TADSA
E-43206 Reus
Tarragona
Spain

SDS İletişimi (sorumlu kişinin epostası)
HazCom@Celanese.com

1.4. Acil durum telefon numarası
CHEMTREC: +1 703 527 3887 (Çağrı kabul toplayın)

2. TEHLİKE TANIMLAMA

2.1. Maddenin veya karışımın sınıflandırılması

1272/2008/AB (CLP) Mevzuatı uyarınca sınıflandırma

Sınıflandırma Kriterleri Bu madde 1272/2008/AB Mevzuatı ve üzerinde yapılan değişiklikleri (CLP Düzenlemesi, GHS) doğrultusunda sınıflandırılmıştır.

Sınıflandırma	Kategori
Tehlikenin niteliği	
Alev alabilir sıvı	Kategori 2
Spesifik hedef organ sistemik zehirlilik (tek maruz kalma)	Kategori 3

67/548/AET veya 1999/45/AB Yönetmeliği uyarınca sınıflandırma ve etiketleme

Sınıflandırma Kriterleri Bu ürün, 67/548/AET Yönetmeliği Ek VI uyarınca sınıflandırılmıştır

**Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006**

Ürün ismi	Ethyl acetate	Revize Edildiği Tarih	25.Nis.2014	EU/TR
MSDS No.	80034	Yayın tarihi	25.Nis.2014	
Revizyon numarası	9.01			

Tehlike belirtisi Oldukça yanıcı

2.2. Etiket Elemanları

Sembol(ler)



Sinyal Kelime

Tehlike

Tehlike Açıklamaları

H225 - Yüksek derecede alev alabilir sıvı ve buhar
H336 - Baş dönmesi ve uyuşukluğa neden olabilir

EC Tehlikenin niteliği

EUH066 - Tekrarlanan maruz kalmalarda deride kuruluğa ve çatlaklara neden olabilir

Önlem Açıklamaları

P243 - Statik elektrik oluşmasını engellemek için önlem alınız
P261 - Toz/ is/ gaz/ buhar/ spreyini solumaktan kaçınınız
P280 - Koruma eldiveni/ koruyucu giysi/ göz koruması/ yüz koruması kullanınız
P303 + P361 + P353 - DERİYE BULAMIŞSA (ya da saçta): Hemen tüm bulaşmış giysisileri çıkarınız. Deriyi suyla yıkayınız
P304 + P340 - SOLUNMASI HALİNDE: Kazazedeyi açık havaya çıkarıp nefes alması kolay bir pozisyonda dinlendiriniz
P312 - Kendinizi iyi hissetmezseniz, ZEHİR MERKEZİ/ doktora başvurunuz

R -cümlesi/ R-cümleleri

R11 - Kolay alevlenebilir.
R66 - Tekrarlanan maruz kalmalarda deride kuruluğa ve çatlaklara neden olabilir.
R67 - Buharları uyuşukluğa ve baş dönmesine neden olabilir.

S kodlu cümle(ler)

S16 - Tutuşturucu kaynaklardan uzak tutun - sigara içmeyin.
S33 - Statik elektrik bosalımlarına karşı önlem alın.

2.3 Diğer tehlikeler

Bu madde, REACH - Ek XIII uyarınca PBT / vPvB kriterlerini karşılamamaktadır.

Ürün ismi	Ethyl acetate	Revize Edildiği Tarih	25.Nis.2014	EU/TR
MSDS No.	80034	Yayın tarihi	25.Nis.2014	
Revizyon numarası	9.01			

3. İÇERİĞE İLİŞKİN YAPI/BİLGİLER

Kimyasal Özellikleri Acetic acid ethyl ester

3.1. Maddeler Detaylar aşağıdaki tablolarda verilmiştir

3.2. Karışımlar Uygulanamaz

Bileşenleri	CAS-No	EC-No.	Kimlik Numarası	Yüzde %
Ethyl acetate	141-78-6	205-500-4	607-022-00-5	min 99.7

Bileşenleri	67/548/EEC	1272/2008/EC (CLP)	Tehlike Açıklamaları
Ethyl acetate	F;R11 R66 R67	Alevlenebilir sıvı - Kategori 2 STOT SE - Kategori 3	H225 H336 EUH066

4. İLK YARDIM TEDBİRLERİ

4.1. İlk yardım tedbirleri ile ilgili açıklamalar

Genel bilgiler	Kirlenmiş, ıslak giysileri derhal çıkartınız ve emin şekilde uzaklaştırınız. Kişisel korunmaya dikkat ediniz.. Her koşulda doktora Güvenlik Verileri Bildirisini gösteriniz.
Solumun	Kipirdatmayınız. Temiz havaya çıkartınız. Hemen bir doktor çağırınız.
Deri	Kirli tüm giysilerinizi ve ayakkabılarınızı hemen çıkartıp bol miktarda su ve sabun ile yıkayınız. Semptomlar devam ederse doktora başvurunuz.
Gözler	Hemen bol miktarda su ile göz kapaklarının altı dahil olmak en az 15 dakika boyunca iyice yıkayınız. Hemen bir doktor çağırınız.
Yutma, ağızdan alma	Bol miktarda su ile yıkayınız. Yutulması halinde kusturmayınız- doktora başvurunuz.

4.2. En önemli bulgular, hem akut hem de gecikmeli

Belli baslı semptomlar	Buhari, gözlerde, solumun sisteminde ve deride tahrişe neden olabilir, Yüksek konsantrasyonlarda buhar solumunu, CNS depresyonuna ve narkoza neden olabilir.
------------------------	--

4.3. Acil tıbbi müdahale ve özel tedavi ihtiyacı belirtisi

Semptomatik tedavi uygulayınız. Akcigerin tahris olması halinde ilk tedaviyi Junik aerosol (sprey) ile yapınız (Declometasondipropionate). Yutma halinde aktif karbon ve salinik laksatif verilmesi tavsiye olunur..

5. YANGINLA MÜCADELE TEDBİRLERİ

5.1. Yangın söndürücü maddeler

Uygun yangın söndürme aletleri
Köpük, Kuru kimyasal, Karbon dioksit (CO2)

Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

Güvenlik nedeniyle kullanılmaması gereken yangın söndürme aletleri

Yüksek basınçlı su kullanmayınız. Çünkü yangının şıramasına ve yayılmasına neden olabilir.

5.2. Maddeden veya karışımdan kaynaklanan özel tehlikeler

Tamamen bir yanma gerçekleşmediğinde, açığa çıkan zararlı gazlar şunlardan oluşabilir

Karbon monoksit

Karbon dioksit (CO₂)

Organik malzemelerin yanma gazları prensip olarak soluma zehirleri olarak sınıflandırılmaktadır

Havadan ağır buharlar zemin üzerinde yoğunlaşabilir

5.3. İtfaiyecilere yönelik tavsiye

Yangın söndürmeler için özel koruyucu ekipmanlar

oksijen tüplü komple maske (EN 133).

Çevresel tedbirler

Suyun sızması çevreye zarar verebilir. Yangın söndürmede kullanılan suların dağılmasını önleyerek bir yerde toplayınız.

Diğer bilgi

Tankaları/kapları su spreyi ile soğutunuz.

6. KAZA SONUCU SALINIMLARA YÖNELİK TEDBİRLER

6.1. Kişisel tedbirler, koruyucu ekipman ve acil durum prosedürleri

Deri ve göz temasından kaçınınız. Isıdan ve tutuşmaya yol açabilecek herşeyden uzak tutunuz. Uygun havalandırma sağlayınız.

6.2. Environmental precautions

Daha fazla sızıntı ve dökülme olmasını önleyiniz. Kanalizasyona/yüzey sularına/yeraltı sularına deşarj etmeyiniz.

6.3. Bir kaba alma ve temizlemeye ilişkin yöntem ve malzemeler

Eylemsiz emici bir malzeme (kum, silika jel, asit, evrensel tutkal, talaş v.s.) ile absorbe etmesini sağlayınız.

Atıkları kapalı ve bu iş için uygun kapalı kaplarda saklayınız. Yerel kurallara uygun olarak yerleştiriniz.

6.4. Diğer bölümler hakkında

Eğitilmiş personel danışın. Bu Güvenlik Bilgi Formu Bölüm 8'de "Kişisel Koruma" için bilgileri dikkate.

7. TAŞIMA VE DEPOLAMA

7.1. Güvenli taşıma tedbirleri

Hijyen ölçütleri

Çalışırken sigara dahil herhangi birşey yiyip içmeyiniz Kirlenmiş olan giysilerinizi hemen çıkarınız Ürün tasidiktan hemen sonra ve çalışmaya ara vermeden önce ellerinizi yıkayınız

Dikkatli kullanılmasını sağlayınız

Çalışma ortamında yeterli hava değişimi ve/veya egsozu olmalıdır.

Uygun olmayan, uyumsuz ürünler

'den uzak tutun:; Peroksitler, Kuvvetli asitler, Oksitleyici maddeler, Aminler

Yangın ve patlamadan korunma hakkında bilgiler

Tutuşmaya neden olabilecek herşeyden uzak tutunuz. Sigara içmeyiniz. Statik elektrik deşarjına engel olmak için gerekli önlemleri alınız . Malzemeyi başka yere aktarırken kapları topraklayınız ve bağlayınız. Yangın durumunda acilen soğutabilmek için su hazır olmalıdır.

**Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006**



Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

Çevreye salınan madde veya karışım miktarını azaltın
Bölüm 8'e bakınız: Çevreye salınan maddelerin kontrolü

Isı sınıfı
T2

7.2. Güvenli saklama ile ilgili koşullar, her türlü geçimsizlikler dahil

Malzemenin saklanması
Kuru, soğuk ve iyi havalandırılmış bir yerde saklayınız.

Uygun olmayan, uyumsuz ürünler
'den uzak tutun:., Peroksitler, Kuvvetli asitler, Oksitleyici maddeler, Aminler

Teknik kriterler/Depolama koşulları
Kuru, soğuk ve iyi havalandırılmış bir yerde ağzı sıkıca kapalı olarak saklayınız. Kabı dikkatlice taşıyınız ve açınız.

Alman saklama sınıfı
3A: Alevlenebilir sıvı maddeler

7.3. Spesifik nihai kullanım(lar)
Bilinmiyor

8. MARUZ KALMA KONTROLLERİ / KİŞİSEL KORUNMA

8.1. Kontrol parametreleri

EC Maruz kalma sınır değerleri
Maruz kalma sınırı belirlenmemiş

DNELs

Akut - Sistemik Etki
Çalışan (oral): gerekli değildir
Çalışan (dermal): gerekli değildir
Çalışan (inhalasyon): 1468 mg/m³
Genel Popülasyon (oral): gerekli değildir
Genel Popülasyon (dermal): gerekli değildir
Genel Popülasyon (inhalasyon): 734 mg/m³

Akut - Lokal Etki
Çalışan (oral): gerekli değildir
Çalışan (dermal): gerekli değildir
Çalışan (inhalasyon): 1468 mg/m³
Genel Popülasyon (oral): gerekli değildir
Genel Popülasyon (dermal): gerekli değildir
Genel Popülasyon (inhalasyon): 734 mg/m³

Uzun-dönemli - Sistemik Etkiler
Çalışan (oral): gerekli değildir
Çalışan (dermal): 63 mg/kg bw/d
Çalışan (inhalasyon): 734 mg/m³
Genel Popülasyon (oral): gerekli değildir
Genel Popülasyon (dermal): 37 mg/kg bw/d
Genel Popülasyon (inhalasyon): 367 mg/m³

**Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006**



Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

Uzun-dönemli - Lokal Etkiler

Çalışan (oral):	gerekli değildir
Çalışan (dermal):	gerekli değildir
Çalışan (inhalasyon):	734 mg/m ³
Genel Popülasyon (oral):	gerekli değildir
Genel Popülasyon (dermal):	gerekli değildir
Genel Popülasyon (inhalasyon):	367 mg/m ³

PNECs

Çevre (su):	0.26 mg/l
Çevre (hava):	gerekli değildir
Çevre (toprak):	0.22 mg/kg soil dw
Çevre (tortu):	0.34 mg/kg sediment dw
Çevre (STP):	650 mg/l

8.2. Maruziyet kontrolleri

Mühendislik ölçütleri Çalışanların maruz kalmasını sadece genel veya dağılımlı havalandırma ile önlemek çoğu zaman yetersiz kalır; yerel havalandırma genelde tercih edilir. Mekanik havalandırma sistemlerinde patlamaya karşı dayanıklı ekipman (örn. vantilatörler, şalterler ve topraklanmış kablolar) kullanılmalıdır.

Kisisel koruyucu ekipmanlar

Genel öneri	Deri ve gözlerle temasından kaçınınız. Sprey dumanını veya buharını solumayınız. Yalnızca emniyet düşünün olduğu yerlerde kullanınız. Göz banyosunu hazır bulundurunuz.
Hijyen ölçütleri	Çalışırken sigara dahil herhangi birsey yiyip içmeyiniz Kirli olan giysilerinizi hemen çıkarınız Ürün tasdikten hemen sonra ve çalışmaya ara vermeden önce ellerinizi yıkayınız
Solunum sisteminin korunması	Aerosoller veya buharlar mevcut ise, solunum koruması gerekecektir (gaz filtresi A).
Gözlerin korunması	yüze tam oturan güvenlik gözlükleri Yüze sıçrama olasılığı mevcut ise koruyucu gözlüğe ilâveten aynı zamanda bir de yüz maskesi kullanınız Ekipman EN 166 ya uygun olmalıdır
Deri korunması	su geçirmez giysi
Ellerin korunması	Kimyeviye karşı dayanıklı eldiven
Uygun malzeme Tip	bütül kauçuk Butoject (Company KCL) veya kıyaslanabilir ürün kullanınız; gerekirse eldiven imalatçisi ile danisma
Değerlendirme Malzemenin kalınlığı Emilim süresi	EN 374'e göre: Kademe 4 yak. (yaklaşık) 0.7 mm yak. (yaklaşık) 120 min

**Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006**



Ürün ismi	Ethyl acetate	Revize Edildiği Tarih	25.Nis.2014	EU/TR
MSDS No.	80034	Yayın tarihi	25.Nis.2014	
Revizyon numarası	9.01			

Çevreye yayılma kontrolleri:
Kanallara/yer üstü sularına/yeraltı sularına tahliye etmeyin

Çevresel tedbirler
Çevreye bırakılmamalıdır

9. FİZİKSEL VE KİMYASAL ÖZELLİKLER

9.1. Temel fiziksel ve kimyasal özellikler ile ilgili bilgiler

Görünüm

Form	sivi
Renk	renksiz
Koku	meyveli

Koku Eşiği	0.006 - 0.686 mg/l (gas in air)
Molekül ağırlığı	88.11 g/mol
Parlama noktası	-4°C
Metod	kapalı kap
Tutulma sıcaklığı	427°C
Bozunma sıcaklığı	saptanmamıştır
Maruz kalma alt sınırı	2.2 % hacim
Maruz kalma üst sınırı	11.5 %hacim
Yanıcılık (katılar)	Uygulanamaz
Erime noktası/arılığı	-83.8°C
Kaynama noktası/arılığı	77.1°C @ 1013 hPa
Yogunluk	0.9003 g/ml @ 20°C
pH	saptanmamıştır
Viskozite	0.4508 mPa*s @ 20°C
Buhar basıncı	98.3 hPa @ 20°C 379 hPa @ 50°C
Buhar yoğunluğu	3.04 (Air=1)
Buharlaşma oranı	4.5 (n-Butyl acetate = 1)
Suda çözünürlüğü	80 g/l @ 25°C
Diğer çözücüler içindeki çözünürlülüğü	Alkoller,, Etanol, Diethyl ether, very soluble in, Acetone, Benzene
Partisyon katsayısı (n-octanol/su)	0.68(hesaplanmıştır)
Patlayıcı özellikleri	yapisinin dikkate alınmasına bağlı olarak uygulanamaz
Oksitleyici özellikleri	yapisinin dikkate alınmasına bağlı olarak uygulanamaz
Yüzey gerilimi	24 mN/m @ 20°C
Ayrışma sabiti	yapisinin dikkate alınmasına bağlı olarak uygulanamaz

Uyarılar Bu ürün MSDS'de belirtilmeyen özellikleri bakımından test edilmemiştir.

10. KARARLILIK VE TEPKENLİK

10.1. Reaktivite

Normal kullanım ve taşıma şartları altında sabit.

10.2. Kimyasal stabilite

Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

Belirtildiği şekilde kullanıldığında bozunma olmaz. Dağılma derecesine kadar ısıtıldığında koşullara bağlı olarak aşağıdaki dağılım ürünleri oluşabilir: Karbon oksitler.

10.3. Tehlikeli tepkime olasılığı

Tehlikeli polimerizasyon meydana gelmez.

10.4. Kaçınılacak koşullar

Ateş almasını önleyiniz. Isı, kıvılcım, açık ateş ve statik deşarjdan koruyunuz.

10.5. Geçimsiz maddeler

'den uzak tutun: Peroksitler, Oksitleyici maddeler, Güçlü asitler, Aminler

10.6. Tehlikeli bozunma ürünleri

Bilinen tehlikeli bozunma ürünleri yoktur

11. TOKSİKOLOJİK BİLGİLER

11.1. Toksikolojik etkiler ile ilgili bilgiler

Ethyl acetate

Akut oral toksisite

Cinsi

Yöntem

LD50: 4934 mg/kg

tavşan

OECD 401

Akut dermal toksisite

Cinsi

LD50: > 20000 mg/kg

tavşan, erkek

Akut solunum(inhalasyon) toksisitesi

Cinsi

LC0 (6h): 22.5 mg/l

sıçan

Deri korozyonu/tahrişi

Cinsi

Metod

Deri tahrişi gözlenmez

tavşan

OECD 404

Ciddi göz hasarı/tahrişi

Cinsi

Metod

Göz tahrişi gözlenmez

tavşan gözü

OECD 405

Deri hassasiyeti

Cinsi

Metod

Hassaslaştırmaz

kobay

OECD 406

in vitro mutajenite

Ames Testi: negatif - metabolik aktivasyonlu ve aktivasyonsuz - Yöntem: OECD 471

Çin hamsterına ait hücrelerde yapılan Sitojenisite Analizi: negatif - metabolik aktivasyonlu ve aktivasyonsuz - Yöntem: OECD 473

Fare lenfoma hücresi gen-mutasyonu: negatif - metabolik aktivasyonlu ve aktivasyonsuz - Yöntem: OECD 476 (Referans madde: Etanol)

in vivo mutajenite

Çin Hamsterı ve erkek fareler üzerinde yapılan Memeli Hayvanlarda Eritrosit Mikronükleus Testi: negatif - Yöntem: OECD 474

kanserojen etkiler

Karsinojen olduğuna dair bir kanıt yok

Üreme sistemi için zehirli

Doğurganlık üzerinde etkileri yoktur

(Referans madde: Etanol)

Maruz kalma yolları

Nazogastrik sondayla besleme (oral gavaj)

Cinsi

fare

Ürün ismi	Ethyl acetate	Revize Edildiği Tarih	25.Nis.2014	EU/TR
MSDS No.	80034	Yayın tarihi	25.Nis.2014	
Revizyon numarası	9.01			
Metod		OECD 416		
		NOAEL: 26400 mg/kg bw/day (for Ethyl acetate on a molar basis)		
İnceleme Türü		İki-nesil incelemesi		
Gelişmeye dair etkiler		Teratojenik, maternal veya gelişimsel etkileri yoktur (Referans madde: Etanol)		
Maruz kalma yolları		Solunum		
Cinsi		siçan		
Metod		OECD 414		
		NOAEC: 73300 mg/m ³		
İnceleme Türü		Doğum Öncesi Gelişimsel Toksikite İncelemesi		
Tekrar tekrar maruz kalınması		Zararlı etkisi yoktur		
Maruz kalma yolları		Nazogastrik sondayla besleme (oral gavaj)		
Cinsi		siçan		
Yöntem:		EPA OTS 795.2600		
		NOAEL: 900 mg/kg bw/day		
İnceleme Türü		90 günlük oral kronik altı toksisite incelemesi		
Tekrar tekrar maruz kalınması		Zararlı etkisi yoktur		
Maruz kalma yolları		Solunum		
Cinsi		siçan		
Metod		EPA OTS 798.2450		
		NOEC: 1.28 mg/l		
İnceleme Türü		90 günlük inhalasyon kronik altı toksisite incelemesi		

12. EKOLOJİK BİLGİLER

Ethyl acetate

Akut Balık toksisitesi

Cinsi

Metod

LC50: 230 mg/l (96h)

Pimephales promelas

EPA E03-05

Acute daphnia toxicity

Cinsi

Metod

EC50: 3090 mg/l (24h)

Daphnia magna (Defne)

DIN 38412, Part 11

NOEC (21 d): 2.4 mg/l

Türler:

Daphnia magna

Toxicity to aquatic plants

Cinsi

Metod

NOEC (72h): > 100 mg/l

Desmodesmus subspicatus

OECD 201

Bakteriler için zehirlilik derecesi

Cinsi

Metod

EC3 (16h): 650 mg/l

Pseudomonas putida

DIN 38412 T.8

Biyolojik bozunma

Metod

Kolaylıkla biyolojik degradasyona (bozunmaya) uğrar

BOD Standart Yöntemi

Diğer potansiyel tehlikeler

Bu madde, REACH - Ek XIII uyarınca PBT / vPvB kriterlerini karşılamamaktadır

13. ATIK TEDBİRLERİ

13.1. Atık arıtma yöntemleri

Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

Ürün hakkında bilgi	Çöp ile ilgili hukuki kanunları ve nizamları dikkate alarak bir imhaya katiniz. Imha yönteminin seçimi ürünün imha etme zamanındaki bileşimine ve yerel nizamlara ve imha etme olanaklarına bağlıdır..
Temizlenmemiş boş paketler	Zararlı maddeler ile temas alan ambalajlar mükemmel şekilde boşaltılmalıdır, bunlar ilgili temizlemeden sonra tekrar kullanıma alınabilirler..

14. TAŞIMA BİLGİLERİ

ADR/RID

UN/ID No.	UN 1173
Proper Shipping Name	Ethyl acetate
Tehlike sınıfı	3
Sınıflandırma kodu	F1
Paketleme grubu	II
Çevre için zararlı	hayır
Tünel Kısıtlama Kodu	(D/E)
Hazard Label(s)	3
Zarar no	33

ADN

	ADN: Konteyner ve tanker
UN/ID No.	UN 1173
Proper Shipping Name	Ethyl acetate
Tehlike sınıfı	3
Sınıflandırma kodu	F1
Paketleme grubu	II
Çevre için zararlı	hayır
Tehlike etiketleri	3

ICAO/IATA

UN-No	UN 1173
Proper Shipping Name	Ethyl acetate
Tehlike sınıfı	3
Paketleme grubu	II
Çevre için zararlı	hayır
Tehlike etiketleri	3

IMDG

UN/ID No.	UN 1173
Proper Shipping Name	Ethyl acetate
Tehlike sınıfı	3
Paketleme grubu	II
Deniz kirleticisi	hayır
Tehlike etiketleri	3
EmS	F-E, S-D

15. DÜZENLEME BİLGİLERİ

15.1. Maddeye veya karışıma özgü sağlık, güvenlik ve çevre yönetmelikleri/mevzuatları

1996/82/EC no'lu Direktif Ek I, bölüm 2:

Emniyet esasları cetveli (AT) kararname No: 1907/2006



Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

Suya tehlike verme sınıfı (WGK):

Suya tehlike arz etme sınıfı 1

Suya tehlike arz etme kayıt no. 95

Suya tehlike arz etme kaynağı Suya tehlike arz eden maddeler yönetmeliği'ne göre sınıflandırılması, ek 1 veya 2

Uluslararası envanterler

Aşağıdaki ülkelerin kimyasal envanterinde listelenmiştir veya şu ayrıcalıklı özelliğiyle ön plana çıkmaktadır:

Australia (AICS)

Canada (DSL)

China (IECSC)

Europe (EINECS)

Japan (ENCS)

Japan (ISHL)

Korea (KECI)

New Zealand (NZIoC)

Philippines (PICCS)

United States (TSCA)

15.2 Kimyasal Risk Değerlendirmesi

Kimyasal Güvenlik Değerlendirmesi uygulanabilir

Yetkilendirme - Reach Mevzuatı, Başlık VII

Bu madde yetkilendirme koşullarına tabi değildir

Kısıtlamalar - Reach Mevzuatı, Başlık VIII

Bu madde Ek XVII, 40 numaralı kriteri karşılamaktadır

16. DİĞER BİLGİLER

Diğer bilgi:

- Ulusal ve yerel düzenlemeleri dikkate alınız

Önceki versiyona göre değişiklikler *** ile işaretlenmiştir.

Eğitim tavsiyesi

Çalışanlarınızın bu Güvenlik Verileri Bildirisi kapsamında detaylı olarak anlatılan tehlikelerin/risklerin bilincinde olduğundan emin olun.. Solunum aparatı takarken, bununla ilgili gerekli eğitimin verilmesi ihtiyacı söz konusu olacaktır.

Bilgi formunu oluşturma için kullanılan anahtar bilgi kaynakları

Bu güvenlik bilgileri sayfasındaki bilgiler, Celanese'nin sahip olduğu veriler ve uygun görülen kamuya ait kaynaklardan oluşmaktadır. ANSI veya 1907/2006 tarafından istenen verilerin bir kısmının mevcut olmaması bu şartları yerine getiren verilerin olmadığına işaret etmektedir..

Ek bilgi

Bu bilgiler, şu anda sahip olduğumuz bilgi düzeyine dayanarak verilmiştir. Ürünlerimizin güvenlikle ilgili özelliklerini tanımlamak için verilmiş olup bir garanti ve/veya kalite iddiası oluşturmaz.. Daha ayrıntılı bilgi, diğer malzeme güvenlik bilgileri veya teknik bilgiler için lütfen Celanese sitesine giriniz: (www.celanese.com).

Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006



Ürün ismi	Ethyl acetate			EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014	
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014	

Terimler ve Kısaltmalar

ADR = Accord européen sur le transport des marchandises dangereuses par Route (Tehlikeli Maddelerin Uluslararası Karayolu ile Nakline Dair Avrupa Anlaşması)
CAS = Kimyasal Abstraktlar Servisi (Amerikan Kimya Derneği birimi)
CLP = Sınıflandırma, Etiketleme ve Ambalajlama
DNEL = Türetilmiş Sıfır Etki düzeyi
EINECS = Avrupa Mevcut Ticari Kimyasal Maddeler Envanteri
GHS = Kimyasalların Sınıflandırılması ve Etiketlenmesi Konusunda Küresel Uyumluluk Sistemi
IATA = Uluslararası Hava Taşımacılığı Birliği
IBC Code = Uluslararası sularda Yığın Halde Tehlikeli Kimyasallar Taşıyan Gemilerin Yapımı ve Donanımı Kanunu (IMO-Uluslararası Denizcilik Örgütü)
ICAO = Uluslararası Sivil Havacılık Örgütü
IMDG = Tehlikeli Maddelere Dair Uluslararası Deniz Ticareti Kanunu
LC50 = Öldürücü Konsantrasyon
LD50 = Öldürücü Doz
LOAEC = Düşük Gözlemlenmiş Yan Etki Konsantrasyonu
LOAEL = Düşük Gözlemlenmiş Yan Etki Düzeyi
LOEL = Düşük Gözlemlenmiş Etki Düzeyi
MEST = Fare Kulağı Şişirme Testi
NOAEC = Gözlemlenmemiş Yan Etki Konsantrasyonu
NOAEL = Gözlemlenmemiş Yan Etki Düzeyi
NOEC = Gözlemlenmemiş Etki Konsantrasyonu
NOEL = Gözlemlenmemiş Etki Düzeyi
PBT = Sürekli, Biyobirikimli ve Zehirli
PNEC = Öngörülen Sıfır Etki Konsantrasyonu
RCR = Risk Karakterizasyonu Oranı
RID = Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Tehlikeli Maddelerin Uluslararası Demiryolu ile Nakline Dair Mevzuat)
R-İbareleri = Risk İbareleri
S-İbareleri = Güvenlik İbareleri
STOT RE = Spesifik Hedef Organ Toksisitesi Tekrarlanmış Maruz Kalma
STOT SE = Spesifik Hedef Organ Toksisitesi Bir Kez Maruz Kalma
STP = Kirli Su Arıtma Tesisi
vPvB = Uzun Süreli ve çok Biyobirikimli

Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

Annex: Exposure Scenario(s)

See section 8: DNELs and PNECs

For industrial use only.

Please contact Celanese in case you are interested in consumer applications at REACH@celanese.com

Table of Contents

Exposure Scenario	Text
1. Exposure Scenario	Formulation: Drumming and Distribution
2. Exposure Scenario	Sanayi kullanımı Formulation & (re)packing of substances and mixtures
3. Exposure Scenario	Sanayi kullanımı Industrial use as an Extraction solvent and/or processing aid;
4. Exposure Scenario	Sanayi kullanımı Industrial Application of Paints, Coatings and other Mixtures containing Ethyl Acetate by way of Spraying;
5. Exposure Scenario	Profesyonel kullanımı Professional application for paints, coatings, adhesives and other mixtures/products containing ethyl acetate
6. Exposure Scenario	Sanayi kullanımı Industrial use in laboratories;
7. Exposure Scenario	Profesyonel kullanımı Professional use in laboratories;
8. Exposure Scenario	Profesyonel kullanımı Use in agrochemicals;
9. Exposure Scenario	Sanayi kullanımı Use in Cleaning Agents;
10. Exposure Scenario	Profesyonel kullanımı Use in Cleaning Agents;
11. Exposure Scenario	Sanayi kullanımı Use in lubricants;
12. Exposure Scenario	Profesyonel kullanımı Use in lubricants;

1. Maruziyet senaryosu

1. Maruz kalma Senaryosu Formulation (SU 3) Drumming and Distribution;
Başlığı

Çevre Formulation of preparations (ERC 2)

Worker

General exposures (closed systems) no sampling (PROC 1)
General exposures (closed systems) with sampling (PROC 2)
General exposures (closed systems) Batch process (PROC 3)
General exposures (open systems) Batch process (PROC 4)
General exposures (closed systems) Batch process Process sampling (PROC 3)
Laboratory activities (PROC 15)
Bulk transfers (PROC 8b)
Drum and small package filling with sample collection (PROC 9)
Equipment cleaning and maintenance (PROC 8a)
Depolama with sample collection (PROC 2)

2. Conditions of use affecting exposure

2.1 Çevresel maruziyetin kontrolü Formulation of preparations (ERC 2)

Product characteristics	Uygulanamaz
-------------------------	-------------

Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006



Ürün ismi	Ethyl acetate	Revize Edildiği Tarih	25.Nis.2014	EU/TR
MSDS No.	80034	Yayın tarihi	25.Nis.2014	
Revizyon numarası	9.01			

Amounts used, frequency and duration of use (or from service life)	Daily amount per site . <= 30.0 tonnes/day. Annual amount per site <= 3000 tonnes/year
Technical and organizational conditions and measures	Uygulanamaz
Conditions and measures related to sewage treatment plant	Estimated substance removal from wastewater via domestic sewage treatment . 88.2% . Assumed domestic sewage treatment plant flow . >= 2000 m³/d
Conditions and measures related to treatment of waste (including article waste)	Dispose of waste or used sacks/containers according to local regulations
Other conditions affecting environmental exposure	Receiving surface water flow rate . >= 18000 m³/d
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply beyond the REACH CSA	Uygulanamaz

2.2 Control of worker exposure General exposures (closed systems) no sampling (PROC 1)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Use in closed process, no likelihood of exposure Gelismis (endüstriyel) maruziyet kontrolleri varsayılmıştır.
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Assumes process temperature up to 40°C

**Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006**



Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz
---	-------------

2.3 Control of worker exposure General exposures (closed systems) with sampling (PROC 2)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Use in closed, continuous process with occasional controlled exposure Gelismis (endüstriyel) maruziyet kontrolleri varsayılmıştır.
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Assumes process temperature up to 40°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

2.4 Control of worker exposure General exposures (closed systems) Batch process (PROC 3)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Use in closed batch process (synthesis or formulation) Gelismis (endüstriyel) maruziyet kontrolleri varsayılmıştır.

**Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006**



Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Assumes process temperature up to 40°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

2.5 Control of worker exposure General exposures (open systems) Batch process (PROC 4)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Maruziyet fırsatı olan yarı kapalı bir işlem içinde kullanın Local exhaust ventilation - efficiency of at least 90% Gelismis (endüstriyel) maruziyet kontrolleri varsayılmıştır.
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Assumes process temperature up to 40.0°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

2.6 Control of worker exposure General exposures (closed systems) Batch process Process sampling (PROC 3)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
----------------------------------	--

Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006



Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Use in closed batch process (synthesis or formulation) Gelismis (endüstriyel) maruziyet kontrolleri varsayılmıştır.
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Assumes process temperature up to 40.0°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

Çalışanların maruziyeti kontrolü Laboratory activities (PROC 15)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Gelismis (endüstriyel) maruziyet kontrolleri varsayılmıştır.
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Assumes process temperature up to 40.0°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006



Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

Çalışanların maruziyeti kontrolü Bulk transfers (PROC 8b)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Maruziyet fırsatı olan yarı kapalı bir işlem içinde kullanın Gelismis (endüstriyel) maruziyet kontrolleri varsayılmıştır.
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Assumes process temperature up to 40.0°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

2.9 Control of worker exposure Drum and small package filling with sample collection (PROC 9)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Maruziyet fırsatı olan yarı kapalı bir işlem içinde kullanın Local exhaust ventilation - efficiency of at least 90.0% Gelismis (endüstriyel) maruziyet kontrolleri varsayılmıştır.
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Assumes process temperature up to 40.0°C

**Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006**



Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz
---	-------------

2.10 Control of worker exposure Equipment cleaning and maintenance (PROC 8a)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Gelismis (endüstriyel) maruziyet kontrolleri varsayılmıştır.
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Assumes process temperature up to 40.0°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

2.11 Control of worker exposure Depolama with sample collection (PROC 2)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Use in closed, continuous process with occasional controlled exposure Gelismis (endüstriyel) maruziyet kontrolleri varsayılmıştır.

**Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006**



Ürün ismi	Ethyl acetate	Revize Edildiği Tarih	25.Nis.2014	EU/TR
MSDS No.	80034	Yayın tarihi	25.Nis.2014	
Revizyon numarası	9.01			

Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Assumes process temperature up to 40.0°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

3.Maruz kalma tahmini ve kaynağın referansı

Environment

Çevre

Release route	Release rate (kg/day)	Release estimation method
Su	0.3	Measured data ESVOC 1
Hava	3	Measured data ESVOC 1
Toprak	0	Salınım faktörü ESVOC 1

Protection target	Exposure estimate (based on: EUSES)	RCR
Freshwater (pelagic)	0.002 mg/L	< 0.01
Freshwater (sediment)	0.012 mg/kg dw	0.01
Marine water (pelagic)	2.295E-4 mg/L	< 0.01
Marine water (sediment)	0.001 mg/kg dw	0.011
Freshwater food chain (predators)	7.99E-4 mg/kg ww	< 0.01
Marine water food chain (predators)	1.079E-4 mg/kg ww	< 0.01
Marine water food chain (top predators)	8.046E-5 mg/kg ww	< 0.01
Effluent	0.018 mg/L	< 0.01
Agricultural soil	9.315E-4 mg/kg dw	< 0.01
Terrestrial food chain (predator)	2.625E-4 mg/kg ww	< 0.01

Risk characterisation for man via the environment

Inhalation: 7.084E-4 mg/m³ - RCR: < 0.01

Oral: 3.171E-5 mg/kg bw/day - RCR: < 0.01

Worker exposure

Long-term, systemic

Contributing scenario:	Inhalation	Dermal:	Combined routes:	Exposure Estimation Method:
------------------------	------------	---------	------------------	-----------------------------

**Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006**



Ürün ismi	Ethyl acetate			EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014	
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014	

General exposures (closed systems) no sampling (PROC 1)	Exposure: 0.037 mg/m ³ RCR: < 0.01	Exposure: 0.034 mg/kg bw/d RCR: < 0.01	RCR: < 0.01	Inhalation: Extended TRA workers Dermal: Extended TRA workers
General exposures (closed systems) with sample collection (PROC 2)	Exposure: 18.36 mg/m ³ RCR: 0.025	Exposure: 1.37 mg/kg bw/d RCR: 0.022	RCR: 0.047	Inhalation: Extended TRA workers Dermal: Extended TRA workers
General exposures (closed systems) Batch process (PROC 3)	Exposure: 36.71 mg/m ³ RCR: 0.05	Exposure: 0.69 mg/kg bw/d RCR: 0.011	RCR: 0.061	Inhalation: Extended TRA workers Dermal: Extended TRA workers
General exposures (open systems) Batch process (PROC 4)	Exposure: 7.342 mg/m ³ RCR: 0.01	Exposure: 6.86 mg/kg bw/d RCR: 0.109	RCR: 0.119	Inhalation: Extended TRA workers Dermal: Extended TRA workers
General exposures (closed systems) Batch process Process sampling (PROC 3)	Exposure: 36.71 mg/m ³ RCR: 0.05	Exposure: 0.69 mg/kg bw/d RCR: 0.011	RCR: 0.061	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Laboratory activities (PROC 15)	Exposure: 36.71 mg/m ³ RCR: 0.05	Exposure: 0.34 mg/kg bw/d RCR: < 0.01	RCR: 0.055	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Bulk transfers (PROC 8b)	Exposure: 91.78 mg/m ³ RCR: 0.125	Exposure: 13.71 mg/kg bw/d RCR: 0.218	RCR: 0.343	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Drum and small package filling with sample collection (PROC 9)	Exposure: 18.36 mg/m ³ RCR: 0.025	Exposure: 6.86 mg/kg bw/d RCR: 0.109	RCR: 0.134	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Equipment cleaning and maintenance (PROC 8a)	Exposure: 183.6 mg/m ³ RCR: 0.25	Exposure: 13.71 mg/kg bw/d RCR: 0.218	RCR: 0.468	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Depolama with sample collection (PROC 2)	Exposure: 18.36 mg/m ³ RCR: 0.025	Exposure: 1.37 mg/kg bw/d RCR: 0.022	RCR: 0.047	Inhalation: Extended TRA workers Dermal: Extended TRA workers

Acute systemic

Contributing Scenario:	Solunum:	Dermal:	Combined routes:	Exposure Estimation Method:
------------------------	----------	---------	------------------	-----------------------------

**Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006**



Ürün ismi	Ethyl acetate			EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014	
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014	

General exposures (closed systems) no sampling (PROC 1)	Exposure: 0.147 mg/m ³ RCR: < 0.01	Uygulanamaz	RCR: < 0.01	Extended TRA workers
General exposures (closed systems) with sample collection (PROC 2)	Exposure: 73.42 mg/m ³ RCR: 0.05	Uygulanamaz	RCR: 0.05	Extended TRA workers
General exposures (closed systems) Batch process (PROC 3)	Exposure: 146.8 mg/m ³ RCR: 0.1	Uygulanamaz	RCR: 0.1	Extended TRA workers
General exposures (open systems) Batch process (PROC 4)	Exposure: 29.37 mg/m ³ RCR: 0.02	Uygulanamaz	RCR: 0.02	Extended TRA workers
General exposures (closed systems) Process sampling Batch process (PROC 3)	Exposure: 146.8 mg/m ³ RCR: 0.1	Uygulanamaz	RCR: 0.1	Extended TRA workers
Laboratory activities (PROC 15)	Exposure: 146.8 mg/m ³ RCR: 0.1	Uygulanamaz	RCR: 0.1	Extended TRA workers
Bulk transfers (PROC 8b)	Exposure: 367.1 mg/m ³ RCR: 0.25	Uygulanamaz	RCR: 0.25	Extended TRA workers
Drum and small package filling with sample collection (PROC 9)	Exposure: 73.42 mg/m ³ RCR: 0.05	Uygulanamaz	RCR: 0.05	Extended TRA workers
Equipment cleaning and maintenance (PROC 8a)	Exposure: 734.2 mg/m ³ RCR: 0.5	Uygulanamaz	RCR: 0.5	Extended TRA workers
Depolama with sample collection (PROC 2)	Exposure: 73.42 mg/m ³ RCR: 0.05	Uygulanamaz	RCR: 0.05	Extended TRA workers

Local effects via inhalation route

Contributing scenario:	Akut:	Uzun süreli:	Exposure Estimation Method:
General exposures (closed systems) no sampling (PROC 1)	Exposure: 0.147 mg/m ³ RCR: < 0.01	Exposure: 0.037 mg/m ³ RCR: < 0.01	Extended TRA workers

Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006



Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

General exposures (closed systems) with sample collection (PROC 2)	Exposure: 73.42 mg/m ³ RCR: 0.05	Exposure: 18.36 mg/m ³ RCR: 0.025	Extended TRA workers
General exposures (closed systems) Batch process (PROC 3)	Exposure: 146.8 mg/m ³ RCR: 0.1	Exposure: 36.71 mg/m ³ RCR: 0.05	Extended TRA workers
General exposures (open systems) Batch process (PROC 4)	Exposure: 29.37 mg/m ³ RCR: 0.02	Exposure: 7.342 mg/m ³ RCR: 0.01	Extended TRA workers
General exposures (closed systems) Process sampling Batch process (PROC 3)	Exposure: 146.8 mg/m ³ RCR: 0.1	Exposure: 36.71 mg/m ³ RCR: 0.05	Extended TRA workers
Laboratory activities (PROC 15)	Exposure: 146.8 mg/m ³ RCR: 0.1	Exposure: 36.71 mg/m ³ RCR: 0.05	Extended TRA workers
Bulk transfers (PROC 8b)	Exposure: 367.1 mg/m ³ RCR: 0.25	Exposure: 91.78 mg/m ³ RCR: 0.125	Extended TRA workers
Drum and small package filling with sample collection (PROC 9)	Exposure: 73.42 mg/m ³ RCR: 0.05	Exposure: 18.36 mg/m ³ RCR: 0.025	Extended TRA workers
Equipment cleaning and maintenance (PROC 8a)	Exposure: 734.2 mg/m ³ RCR: 0.5	Exposure: 13.71 mg/m ³ RCR: 0.218	Extended TRA workers
Depolama with sample collection (PROC 2)	Exposure: 73.42 mg/m ³ RCR: 0.05	Exposure: 18.36 mg/m ³ RCR: 0.025	Extended TRA workers

Local effects via dermal route

Risks resulting from short-term exposure are covered by the long-term exposure assessment.

**Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006**



Ürün ismi	Ethyl acetate			EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014	
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014	

4.Guidance to Downstream User to evaluate whether he works inside the boundaries set by the ES

The Use Descriptors assigned based on the ECHA guidance on use descriptors R-12 represent the current understanding of the uses of our product

(http://echa.europa.eu/documents/10162/13632/information_requirements_r12_en.pdf).

Please carefully consider whether the listed Exposure Scenarios reflect your uses of Celanese's product. Different uses can be addressed in the same exposure scenario if the same operational conditions and risk management measures apply to all these uses. In addition, various types of activities can be expressed by one category for workers' exposure and one category for environmental exposure. ECHA's "Guidance for Downstream Users" provides details how to decide whether or not your use is covered by the exposure scenarios and what to do if this is not the case

(http://echa.europa.eu/documents/10162/13634/du_en.pdf).

Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006



Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

2. Exposure Scenario

1. Maruz kalma Senaryosu Başlığı

Sanayi kullanımı Formulation & (re)packing of substances and mixtures

Environment Formulation of preparations (ERC 2)

Worker

General exposures (closed systems) no sampling (PROC 1)
General exposures (closed systems) with sampling (PROC 2)
General exposures (closed systems) Batch process (PROC 3)
General exposures (open systems) Batch process (PROC 4)
Batch processes at elevated temperatures (PROC 3)
Process sampling (PROC 3)
Laboratory activities (PROC 15)
Bulk transfers (PROC 8b)
Mixing operations (open systems) (PROC 5)
Transfer from/pouring from containers , Manual (PROC 8a)
Drum/batch transfers (PROC 8b)

2. Conditions of use affecting exposure

2.1 Çevresel maruziyetin kontrolü Formulation of preparations (ERC 2)

Product characteristics	Uygulanamaz
Amounts used, frequency and duration of use (or from service life)	Daily amount per site <= 8.0 tonnes/day Annual amount per site <= 1200 tonnes/year
Technical and organizational conditions and measures	Uygulanamaz
Conditions and measures related to sewage treatment plant	Estimated substance removal from wastewater via domestic sewage treatment 88.2% Assumed domestic sewage treatment plant flow >= 2000 m ³ /d
Conditions and measures related to treatment of waste (including article waste)	Dispose of waste or used sacks/containers according to local regulations
Other conditions affecting environmental exposure	Receiving surface water flow rate >= 18000 m ³ /d

2.2 Control of worker exposure General exposures (closed systems) no sampling (PROC 1)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
---	--

Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006



Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Use in closed process, no likelihood of exposure Gelismis (endüstriyel) maruziyet kontrolleri varsayılmıştır.
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Assumes process temperature up to 40.0°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

2.3 Control of worker exposure General exposures (closed systems) with sample collection (PROC 2)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Use in closed, continuous process with occasional controlled exposure Gelismis (endüstriyel) maruziyet kontrolleri varsayılmıştır.
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Assumes process temperature up to 40.0°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006



Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

2.4 Control of worker exposure General exposures (closed systems) Batch process (PROC 3)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Use in closed batch process (synthesis or formulation) Gelismis (endüstriyel) maruziyet kontrolleri varsayılmıştır.
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Assumes process temperature up to 40.0°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

2.5 Control of worker exposure General exposures (open systems) Batch process (PROC 4)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Maruziyet fırsatı olan yarı kapalı bir işlem içinde kullanın Local exhaust ventilation - efficiency of at least 90.0% Gelismis (endüstriyel) maruziyet kontrolleri varsayılmıştır.
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Assumes process temperature up to 40.0°C

**Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006**



Ürün ismi	Ethyl acetate	Revize Edildiği Tarih	25.Nis.2014	EU/TR
MSDS No.	80034	Yayın tarihi	25.Nis.2014	
Revizyon numarası	9.01			

Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz
---	-------------

2.6 Control of worker exposure Batch processes at elevated temperatures (PROC 3)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Use in closed batch process (synthesis or formulation) Local exhaust ventilation - efficiency of at least 90.0% Gelismis (endüstriyel) maruziyet kontrolleri varsayılmıştır.
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Assumes process temperature up to 40.0°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

Çalışanların maruziyeti kontrolü Process sampling (PROC 3)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Use in closed batch process (synthesis or formulation) Gelismis (endüstriyel) maruziyet kontrolleri varsayılmıştır.

**Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006**



Ürün ismi	Ethyl acetate	Revize Edildiği Tarih	25.Nis.2014	EU/TR
MSDS No.	80034	Yayın tarihi	25.Nis.2014	
Revizyon numarası	9.01			

Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Assumes process temperature up to 40.0°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

Çalışanların maruziyeti kontrolü Laboratory activities (PROC 15)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Gelişmiş (endüstriyel) maruziyet kontrolleri varsayılmıştır.
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Assumes process temperature up to 40.0°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

2.9 Control of worker exposure Bulk transfers (PROC 8b)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
----------------------------------	--

Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006



Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Maruziyet fırsatı olan yarı kapalı bir işlem içinde kullanın Gelismis (endüstriyel) maruziyet kontrolleri varsayılmıştır.
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Assumes process temperature up to 40.0°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

2.10 Control of worker exposure Mixing operations (open systems) (PROC 5)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Local exhaust ventilation - efficiency of at least 90.0% Gelismis (endüstriyel) maruziyet kontrolleri varsayılmıştır.
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Assumes process temperature up to 40.0°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006



Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

2.11 Control of worker exposure Transfer from/pouring from containers , Manual (PROC 8a)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Local exhaust ventilation - efficiency of at least 90.0% Gelismis (endüstriyel) maruziyet kontrolleri varsayılmıştır.
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Assumes process temperature up to 40.0°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

2.12 Control of worker exposure Drum/batch transfers (PROC 8b)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Maruziyet fırsatı olan yarı kapalı bir işlem içinde kullanın Local exhaust ventilation - efficiency of at least 95.0% Gelismis (endüstriyel) maruziyet kontrolleri varsayılmıştır.
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Assumes process temperature up to 40.0°C

**Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006**



Ürün ismi	Ethyl acetate	Revize Edildiği Tarih	25.Nis.2014	EU/TR
MSDS No.	80034	Yayın tarihi	25.Nis.2014	
Revizyon numarası	9.01			

Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz
--	-------------

3.Maruz kalma tahmini ve kaynağın referansı

Environment

Environment

Release route	Release rate (kg/day)	Release estimation method
Su	24	Salınım faktörü
Hava	40	Salınım faktörü
Toprak	0.08	Salınım faktörü

Protection target	Exposure estimate (based on: EUSES)	RCR
Freshwater (pelagic)	0.142 mg/L	0.547
Freshwater (sediment)	0.848 mg/kg dw	0.678
Marine water (pelagic)	0.014 mg/L	0.548
Marine water (sediment)	0.085 mg/kg dw	0.68
Freshwater food chain (predators)	0.042 mg/kg ww	< 0.01
Marine water food chain (predators)	0.004 mg/kg ww	< 0.01
Marine water food chain (top predators)	8.973E-4 mg/kg ww	< 0.01
Effluent	1.419 mg/L	< 0.01
Agricultural soil	0.066 mg/kg dw	0.273
Terrestrial food chain (predator)	0.011 mg/kg ww	< 0.01

Risk characterisation for man via the environment

Inhalation: 0.005 mg/m³ - RCR: < 0.01
Oral: 0.002 mg/kg bw/day - RCR: < 0.01

Worker exposure

Long-term, systemic

Contributing scenario:	Inhalation	Dermal:	Combined routes:	Exposure Estimation Method:
General exposures (closed systems) no sampling (PROC 1)	Exposure: 0.037 mg/m ³ RCR: < 0.01	Exposure: 0.034 mg/kg bw/d RCR: < 0.01	RCR: < 0.01	Inhalation: Extended TRA workers Dermal: Extended TRA workers
General exposures (closed systems) with sample collection (PROC 2)	Exposure: 18.36 mg/m ³ RCR: 0.025	Exposure: 1.37 mg/kg bw/d RCR: 0.022	RCR: 0.047	Inhalation: Extended TRA workers Dermal: Extended TRA workers

**Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006**



Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

General exposures (closed systems) Batch process (PROC 3)	Exposure: 36.71 mg/m ³ RCR: 0.05	Exposure: 0.69 mg/kg bw/d RCR: 0.011	RCR: 0.061	Inhalation: Extended TRA workers Dermal: Extended TRA workers
General exposures (closed systems) Batch process (PROC 4)	Exposure: 7.342 mg/m ³ RCR: 0.01	Exposure: 6.86 mg/kg bw/d RCR: 0.109	RCR: 0.119	Inhalation: Extended TRA workers Dermal: Extended TRA workers
General exposures (open systems) Batch process (PROC 4)	Exposure: 7.342 mg/m ³ RCR: 0.01	Exposure: 6.86 mg/kg bw/d RCR: 0.109	RCR: 0.119	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Batch processes at elevated temperatures (PROC 3)	Exposure: 3.671 mg/m ³ RCR: < 0.01	Exposure: 0.69 mg/kg bw/d RCR: 0.011	RCR: 0.016	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Process sampling (PROC 3)	Exposure: 36.71 mg/m ³ RCR: 0.05	Exposure: 0.69 mg/kg bw/d RCR: 0.011	RCR: 0.061	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Laboratory activities (PROC 15)	Exposure: 36.71 mg/m ³ RCR: 0.05	Exposure: 0.34 mg/kg bw/d RCR: < 0.01	RCR: 0.055	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Bulk transfers (PROC 8b)	Exposure: 91.78 mg/m ³ RCR: 0.125	Exposure: 13.71 mg/kg bw/d RCR: 0.218	RCR: 0.343	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Mixing operations (open systems) (PROC 5)	Exposure: 18.36 mg/m ³ RCR: 0.025	Exposure: 13.71 mg/kg bw/d RCR: 0.218	RCR: 0.243	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Transfer from/pouring from containers , Manual (PROC 8a)	Exposure: 18.36 mg/m ³ RCR: 0.025	Exposure: 13.71 mg/kg bw/d RCR: 0.218	RCR: 0.243	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Drum/batch transfers (PROC 8b)	Exposure: 4.589 mg/m ³ RCR: < 0.01	Exposure: 13.71 mg/kg bw/d RCR: 0.218	RCR: 0.224	Inhalation: Extended TRA workers Dermal: Extended TRA workers

Acute systemic

Contributing Scenario:	Solunum:	Dermal:	Combined routes:	Exposure Estimation Method:
General exposures (closed systems) no sampling (PROC 1)	Exposure: 0.147 mg/m ³ RCR: < 0.01	Uygulanamaz	RCR: < 0.01	Extended TRA workers

**Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006**



Ürün ismi	Ethyl acetate			EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014	
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014	

General exposures (closed systems) with sample collection (PROC 2)	Exposure: 73.42 mg/m ³ RCR: 0.05	Uygulanamaz	RCR: 0.05	Extended TRA workers
General exposures (closed systems) Batch process (PROC 3)	Exposure: 146.8 mg/m ³ RCR: 0.1	Uygulanamaz	RCR: 0.1	Extended TRA workers
General exposures (open systems) Batch process (PROC 4)	Exposure: 29.37 mg/m ³ RCR: 0.02	Uygulanamaz	RCR: 0.02	Extended TRA workers
Batch processes at elevated temperatures (PROC 3)	Exposure: 14.68 mg/m ³ RCR: 0.01	Uygulanamaz	RCR: 0.01	Extended TRA workers
Process sampling (PROC 3)	Exposure: 146.8 mg/m ³ RCR: 0.1	Uygulanamaz	RCR: 0.1	Extended TRA workers
Laboratory activities (PROC 15)	Exposure: 146.8 mg/m ³ RCR: 0.1	Uygulanamaz	RCR: 0.1	Extended TRA workers
Bulk transfers (PROC 8b)	Exposure: 367.1 mg/m ³ RCR: 0.25	Uygulanamaz	RCR: 0.25	Extended TRA workers
Mixing operations (open systems) (PROC 5)	Exposure: 73.42 mg/m ³ RCR: 0.05	Uygulanamaz	RCR: 0.05	Extended TRA workers
Transfer from/pouring from containers , Manual (PROC 8a)	Exposure: 73.42 mg/m ³ RCR: 0.05	Uygulanamaz	RCR: 0.05	Extended TRA workers
Drum/batch transfers (PROC 8b)	Exposure: 18.36 mg/m ³ RCR: 0.012	Uygulanamaz	RCR: 0.012	Extended TRA workers

Local effects via inhalation route

Contributing scenario:	Akut:	Uzun süreli:	Exposure Estimation Method:
General exposures (closed systems) no sampling (PROC 1)	Exposure: 0.147 mg/m ³ RCR: < 0.01	Exposure: 0.037 mg/m ³ RCR: < 0.01	Inhalation: Extended TRA workers Dermal: Extended TRA workers
General exposures (closed systems) with sample collection (PROC 2)	Exposure: 73.42 mg/m ³ RCR: 0.05	Exposure: 18.36 mg/m ³ RCR: 0.025	Inhalation: Extended TRA workers Dermal: Extended TRA workers

Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006



Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

General exposures (closed systems) Batch process (PROC 3)	Exposure: 146.8 mg/m ³ RCR: 0.1	Exposure: 36.71 mg/m ³ RCR: 0.05	Inhalation: Extended TRA workers Dermal: Extended TRA workers
General exposures (open systems) Batch process (PROC 4)	Exposure: 29.37 mg/m ³ RCR: 0.02	Exposure: 7.342 mg/m ³ RCR: 0.01	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Batch processes at elevated temperatures (PROC 3)	Exposure: 14.68 mg/m ³ RCR: 0.01	Exposure: 3.671 mg/m ³ RCR: < 0.01	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Process sampling (PROC 3)	Exposure: 146.8 mg/m ³ RCR: 0.1	Exposure: 36.71 mg/m ³ RCR: 0.05	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Laboratory activities (PROC 15)	Exposure: 146.8 mg/m ³ RCR: 0.1	Exposure: 36.71 mg/m ³ RCR: 0.05	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Bulk transfers (PROC 8b)	Exposure: 367.1 mg/m ³ RCR: 0.25	Exposure: 91.78 mg/m ³ RCR: 0.125	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Mixing operations (open systems) (PROC 5)	Exposure: 73.42 mg/m ³ RCR: 0.05	Exposure: 18.36 mg/m ³ RCR: 0.025	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Transfer from/pouring from containers Manual (PROC 8a)	Exposure: 73.42 mg/m ³ RCR: 0.05	Exposure: 18.36 mg/m ³ RCR: 0.025	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Drum/batch transfers (PROC 8b)	Exposure: 18.36 mg/m ³ RCR: 0.012	Exposure: 4.589 mg/m ³ RCR: < 0.01	Inhalation: Extended TRA workers Dermal: Extended TRA workers

Local effects via dermal route

Risks resulting from short-term exposure are covered by the long-term exposure assessment.

**Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006**



Ürün ismi	Ethyl acetate			EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014	
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014	

4.Guidance to Downstream User to evaluate whether he works inside the boundaries set by the ES

The Use Descriptors assigned based on the ECHA guidance on use descriptors R-12 represent the current understanding of the uses of our product

(http://echa.europa.eu/documents/10162/13632/information_requirements_r12_en.pdf).

Please carefully consider whether the listed Exposure Scenarios reflect your uses of Celanese's product. Different uses can be addressed in the same exposure scenario if the same operational conditions and risk management measures apply to all these uses. In addition, various types of activities can be expressed by one category for workers' exposure and one category for environmental exposure. ECHA's "Guidance for Downstream Users" provides details how to decide whether or not your use is covered by the exposure scenarios and what to do if this is not the case

(http://echa.europa.eu/documents/10162/13634/du_en.pdf).

Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

3. Exposure Scenario

1. Maruz kalma Senaryosu Başlığı Sanayi kullanımı Industrial use as an Extraction solvent and/or processing aid;

Environment Industrial use resulting in manufacture of another substance (use of intermediates) (ERC 6a)

Worker

General exposures (closed systems) Use in contained batch processes with sample collection (PROC 3)
General exposures (open systems) Batch process (PROC 4)
Bulk transfers Dedicated facility (PROC 8b)
Bulk transfers Non-dedicated facility (PROC 8a)
Laboratory activities (PROC 15)
General exposures (closed systems) Use in contained batch processes Elevated temperature (PROC 3)
Equipment cleaning and maintenance (PROC 8a)
Depolama with sample collection (PROC 2)

2. Conditions of use affecting exposure

2.1 Çevresel maruziyetin kontrolü Industrial use resulting in manufacture of another substance (use of intermediates) (ERC 6a)

Product characteristics	Uygulanamaz
Amounts used, frequency and duration of use (or from service life)	Daily amount per site <= 1.0 tonnes/day Annual amount per site <= 300 tonnes/year
Technical and organizational conditions and measures	Uygulanamaz
Conditions and measures related to sewage treatment plant	Estimated substance removal from wastewater via domestic sewage treatment 88.2 % Assumed domestic sewage treatment plant flow >2000 m ³ /d
Conditions and measures related to treatment of waste (including article waste)	Dispose of waste or used sacks/containers according to local regulations
Other conditions affecting environmental exposure	Receiving surface water flow rate >=18000 m ³ /d
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply beyond the REACH CSA	Uygulanamaz

Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006



Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

2.2 Control of worker exposure General exposures (closed systems) Use in contained batch processes with sample collection (PROC 3)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Use in closed batch process (synthesis or formulation) Gelismis (endüstriyel) maruziyet kontrolleri varsayılmıştır.
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Assumes process temperature up to 40.0°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

2.3 Control of worker exposure General exposures (open systems) Batch process (PROC 4)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Maruziyet fırsatı olan yarı kapalı bir işlem içinde kullanın Local exhaust ventilation - efficiency of at least 90.0% Gelismis (endüstriyel) maruziyet kontrolleri varsayılmıştır.
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Assumes process temperature up to 40.0°C

**Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006**



Ürün ismi	Ethyl acetate	Revize Edildiği Tarih	25.Nis.2014	EU/TR
MSDS No.	80034	Yayın tarihi	25.Nis.2014	
Revizyon numarası	9.01			

Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz
--	-------------

2.4 Control of worker exposure Bulk transfers Dedicated facility (PROC 8b)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Maruziyet fırsatı olan yarı kapalı bir işlem içinde kullanın Gelismis (endüstriyel) maruziyet kontrolleri varsayılmıştır.
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Assumes process temperature up to 40°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

2.5 Control of worker exposure Bulk transfers Non-dedicated facility (PROC 8a)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Local exhaust ventilation - efficiency of at least 90% Gelismis (endüstriyel) maruziyet kontrolleri varsayılmıştır.

**Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006**



Ürün ismi	Ethyl acetate	Revize Edildiği Tarih	25.Nis.2014	EU/TR
MSDS No.	80034	Yayın tarihi	25.Nis.2014	
Revizyon numarası	9.01			

Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Assumes process temperature up to 40°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

2.6 Control of worker exposure Laboratory activities (PROC 15)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Gelişmiş (endüstriyel) maruziyet kontrolleri varsayılmıştır.
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Assumes process temperature up to 40°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

Çalışanların maruziyeti kontrolü General exposures (closed systems) Use in contained batch processes Elevated temperature (PROC 3)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
----------------------------------	--

Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006



Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Use in closed batch process (synthesis or formulation) Local exhaust ventilation - efficiency of at least 90% Gelismis (endüstriyel) maruziyet kontrolleri varsayılmıştır.
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Assumes process temperature up to 40°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

Çalışanların maruziyeti kontrolü Equipment cleaning and maintenance (PROC 8a)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Gelismis (endüstriyel) maruziyet kontrolleri varsayılmıştır.
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Assumes process temperature up to 40°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

**Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006**



Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

2.9 Control of worker exposure Depolama with sample collection (PROC 2)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Use in closed, continuous process with occasional controlled exposure Gelismis (endüstriyel) maruziyet kontrolleri varsayılmıştır.
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Assumes process temperature up to 40°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

3.Maruz kalma tahmini ve kaynağın referansı

Environment

Environment

Release route	Release rate (kg/day)	Release estimation method
Su	10	Salınım faktörü ESVOC 1
Hava	5	Salınım faktörü ESVOC 1
Toprak	0.1	Salınım faktörü ESVOC 1

Protection target	Exposure estimate (based on: EUSES)	RCR
Freshwater (pelagic)	0.059 mg/L	0.229
Freshwater (sediment)	0.355 mg/kg dw	0.284
Marine water (pelagic)	0.006 mg/L	0.229
Marine water (sediment)	0.036 mg/kg dw	0.285
Freshwater food chain (predators)	0.035 mg/kg ww	< 0.01
Marine water food chain (predators)	0.004 mg/kg ww	< 0.01
Marine water food chain (top predators)	7.6E-4 mg/kg ww	< 0.01
Effluent	0.591 mg/L	< 0.01

**Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006**



Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

Agricultural soil	0.027 mg/kg dw	0.114
Terrestrial food chain (predator)	< 0.01 mg/kg ww	< 0.01

Risk characterisation for man via the environment

Inhalation: 0.002 mg/m³ - RCR: < 0.01
Oral: 0.002 mg/kg bw/day - RCR: < 0.01

Worker exposure

Long-term, systemic

Contributing scenario:	Inhalation	Dermal:	Combined routes:	Exposure Estimation Method:
General exposures (closed systems) Use in contained batch processes with sample collection (PROC 3)	Exposure: 36.71 mg/m ³ RCR: 0.05	Exposure: 0.069 mg/kg bw/d RCR: 0.011	RCR: 0.061	Inhalation: Extended TRA workers Dermal: Extended TRA workers
General exposures (open systems) Batch process (PROC 4)	Exposure: 7.342 mg/m ³ RCR: 0.01	Exposure: 6.86 mg/kg bw/d RCR: 0.109	RCR: 0.119	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Bulk transfers Dedicated facility (PROC 8b)	Exposure: 91.78 mg/m ³ RCR: 0.125	Exposure: 13.71 mg/kg bw/d RCR: 0.218	RCR: 0.343	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Bulk transfers Non-dedicated facility (PROC 8a)	Exposure: 18.36 mg/m ³ RCR: 0.025	Exposure: 13.71 mg/kg bw/d RCR: 0.218	RCR: 0.243	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Laboratory activities (PROC 15)	Exposure: 36.71 mg/m ³ RCR: 0.05	Exposure: 0.34 mg/kg bw/d RCR: < 0.01	RCR: 0.055	Inhalation: Extended TRA workers Dermal: Extended TRA workers
General exposures (closed systems) Use in contained batch processes Elevated temperature (PROC 3)	Exposure: 3.671 mg/m ³ RCR: < 0.01	Exposure: 0.69 mg/kg bw/d RCR: 0.011	RCR: 0.016	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Equipment cleaning and maintenance (PROC 8a)	Exposure: 183.6 mg/m ³ RCR: 0.25	Exposure: 13.71 mg/kg bw/d RCR: 0.218	RCR: 0.468	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Depolama with sample collection (PROC 2)	Exposure: 18.36 mg/m ³ RCR: 0.025	Exposure: 1.37 mg/kg bw/d RCR: 0.022	RCR: 0.047	Inhalation: Extended TRA workers Dermal: Extended TRA workers

Acute systemic

Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006



Ürün ismi	Ethyl acetate			EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014	
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014	

Contributing Scenario:	Solunum:	Dermal:	Combined routes:	Exposure Estimation Method:
General exposures (closed systems) Use in contained batch processes with sample collection (PROC 3)	Exposure: 146.8 mg/m ³ RCR: 0.1	Uygulanamaz	RCR: 0.1	Extended TRA workers
General exposures (open systems) Batch process (PROC 4)	Exposure: 29.37 mg/m ³ RCR: 0.02	Uygulanamaz	RCR: 0.02	Extended TRA workers
Bulk transfers Dedicated facility (PROC 8b)	Exposure: 367.1 mg/m ³ RCR: 0.25	Uygulanamaz	RCR: 0.25	Extended TRA workers
Bulk transfers Non-dedicated facility (PROC 8a)	Exposure: 73.42 mg/m ³ RCR: 0.05	Uygulanamaz	RCR: 0.05	Extended TRA workers
Laboratory activities (PROC 15)	Exposure: 146.8 mg/m ³ RCR: 0.1	Uygulanamaz	RCR: 0.1	Extended TRA workers
General exposures (closed systems) Use in contained batch processes Elevated temperature (PROC 3)	Exposure: 14.68 mg/m ³ RCR: 0.01	Uygulanamaz	RCR: 0.01	Extended TRA workers
Equipment cleaning and maintenance (PROC 8a)	Exposure: 734.2 mg/m ³ RCR: 0.5	Uygulanamaz	RCR: 0.5	Extended TRA workers
Depolama with sample collection (PROC 2)	Exposure: 73.42 mg/m ³ RCR: 0.05	Uygulanamaz	RCR: 0.05	Extended TRA workers

Local effects via inhalation route

Contributing scenario:	Akut:	Uzun süreli:	Exposure Estimation Method:
General exposures (closed systems) Use in contained batch processes with sample collection (PROC 3)	Exposure: 146.8 mg/m ³ RCR: 0.1	Exposure: 36.71 mg/m ³ RCR: 0.05	Extended TRA workers

**Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006**



Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

General exposures (open systems) Batch process (PROC 4)	Exposure: 29.37 mg/m ³ RCR: 0.02	Exposure: 7.342 mg/m ³ RCR: 0.01	Extended TRA workers
Bulk transfers Dedicated facility (PROC 8b)	Exposure: 367.1 mg/m ³ RCR: 0.25	Exposure: 91.78 mg/m ³ RCR: 0.125	Extended TRA workers
Bulk transfers Non-dedicated facility (PROC 8a)	Exposure: 73.42 mg/m ³ RCR: 0.05	Exposure: 18.36 mg/m ³ RCR: 0.025	Extended TRA workers
Laboratory activities (PROC 15)	Exposure: 146.8 mg/m ³ RCR: 0.1	Exposure: 36.71 mg/m ³ RCR: 0.05	Extended TRA workers
General exposures (closed systems) Use in contained batch processes Elevated temperature (PROC 3)	Exposure: 14.68 mg/m ³ RCR: 0.01	Exposure: 3.671 mg/m ³ RCR: < 0.01	Extended TRA workers
Equipment cleaning and maintenance (PROC 8a)	Exposure: 734.2 mg/m ³ RCR: 0.5	Exposure: 183.6 mg/m ³ RCR: 0.25	Extended TRA workers
Depolama with sample collection (PROC 2)	Exposure: 73.42 mg/m ³ RCR: 0.05	Exposure: 18.36 mg/m ³ RCR: 0.025	Extended TRA workers

Local effects via dermal route

Risks resulting from short-term exposure are covered by the long-term exposure assessment.

4.Guidance to Downstream User to evaluate whether he works inside the boundaries set by the ES

The Use Descriptors assigned based on the ECHA guidance on use descriptors R-12 represent the current understanding of the uses of our product

(http://echa.europa.eu/documents/10162/13632/information_requirements_r12_en.pdf).

Please carefully consider whether the listed Exposure Scenarios reflect your uses of Celanese's product. Different uses can be addressed in the same exposure scenario if the same operational conditions and risk management measures apply to all these uses. In addition, various types of activities can be expressed by one category for workers' exposure and one category for environmental exposure.

ECHA's "Guidance for Downstream Users" provides details how to decide whether or not your use is covered by the exposure scenarios and what to do if this is not the case

(http://echa.europa.eu/documents/10162/13634/du_en.pdf).

Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

4. Exposure Scenario

1. Maruz kalma Senaryosu Başlığı Sanayi kullanımı: Industrial Application of Paints, Coatings and other Mixtures containing Ethyl Acetate by way of Spraying;

Environment Industrial use of processing aids in processes and products, not becoming part of articles (ERC 4)

Worker

General exposures (closed systems) (PROC 1)

General exposures (closed systems) Use in contained systems with sample collection (PROC 2)

Film formation - force drying (50-100°C). stoving (>100°C). UV/EB radiation curing (PROC 2)

Mixing operations (closed systems) General exposures (PROC 3)

Film formation - air drying (PROC 4)

Preparation of material for application Mixing operations (open systems) (PROC 5)

Spraying (automatic/robotic) (PROC 7)

Spraying Manual (PROC 7)

Material transfers Non-dedicated facility (PROC 8a)

Material transfers Dedicated facility (PROC 8b)

Roller, spreader, flow application (PROC 10)

Dipping, immersion and pouring (PROC 13)

Laboratory activities (PROC 15)

Material transfers Drum/batch transfers Transfer from/pouring from containers (PROC 9)

Tabletleme, kompresleme, ekstrüzyon, pelletleme ile üretilen preparatlar veya parçalar (PROC 14)

2. Conditions of use affecting exposure

2.1 Çevresel maruziyetin kontrolü Industrial use of processing aids in processes and products, not becoming part of articles (ERC 4)

Product characteristics	Uygulanamaz
Amounts used, frequency and duration of use (or from service life)	Daily amount per site <= 1.0 tonnes/day Annual amount per site <= 300 tonnes/year
Technical and organizational conditions and measures	Uygulanamaz
Conditions and measures related to sewage treatment plant	Estimated substance removal from wastewater via domestic sewage treatment 88.2 % Assumed domestic sewage treatment plant flow >= 2000 m ³ /d
Conditions and measures related to treatment of waste (including article waste)	Dispose of waste or used sacks/containers according to local regulations
Other conditions affecting environmental exposure	Receiving surface water flow rate >= 18000 m ³ /d

**Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006**



Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

2.2 Control of worker exposure General exposures (closed systems) (PROC 1)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Use in closed process, no likelihood of exposure Gelismis (endüstriyel) maruziyet kontrolleri varsayılmıştır.
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Assumes process temperature up to 40°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

2.3 Control of worker exposure General exposures (closed systems) Use in contained systems with sample collection (PROC 2)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Use in closed, continuous process with occasional controlled exposure Gelismis (endüstriyel) maruziyet kontrolleri varsayılmıştır.
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Assumes process temperature up to 40°C

**Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006**



Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz
---	-------------

2.4 Control of worker exposure Film formation - force drying (50-100°C). stoving (>100°C). UV/EB radiation curing (PROC 2)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Use in closed, continuous process with occasional controlled exposure Gelismis (endüstriyel) maruziyet kontrolleri varsayılmıştır.
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Assumes process temperature up to 100°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

2.5 Control of worker exposure Mixing operations (closed systems) General exposures (PROC 3)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Use in closed batch process (synthesis or formulation) Gelismis (endüstriyel) maruziyet kontrolleri varsayılmıştır.

**Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006**



Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Assumes process temperature up to 40°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

2.6 Control of worker exposure Film formation - air drying (PROC 4)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Maruziyet fırsatı olan yarı kapalı bir işlem içinde kullanın Local exhaust ventilation - efficiency of at least 90% Gelismis (endüstriyel) maruziyet kontrolleri varsayılmıştır.
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Assumes process temperature up to 40°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

Çalışanların maruziyeti kontrolü Preparation of material for application Mixing operations (open systems) (PROC 5)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
----------------------------------	--

Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006



Ürün ismi	Ethyl acetate	Revize Edildiği Tarih	25.Nis.2014	EU/TR
MSDS No.	80034	Yayın tarihi	25.Nis.2014	
Revizyon numarası	9.01			

Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Local exhaust ventilation - efficiency of at least 90% Gelismis (endüstriyel) maruziyet kontrolleri varsayılmıştır.
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Assumes process temperature up to 40°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

Çalışanların maruziyeti kontrolü Spraying (automatic/robotic) (PROC 7)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Local exhaust ventilation - efficiency of at least 95% Gelismis (endüstriyel) maruziyet kontrolleri varsayılmıştır.
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Assumes process temperature up to 40°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006



Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

2.9 Control of worker exposure Spraying Manual (PROC 7)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Local exhaust ventilation - efficiency of at least 95% Gelismis (endüstriyel) maruziyet kontrolleri varsayılmıştır.
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Assumes process temperature up to 40°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

2.10 Control of worker exposure Material transfers Non-dedicated facility (PROC 8a)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Local exhaust ventilation - efficiency of at least 90% Gelismis (endüstriyel) maruziyet kontrolleri varsayılmıştır.
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Assumes process temperature up to 40°C

**Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006**



Ürün ismi	Ethyl acetate	Revize Edildiği Tarih	25.Nis.2014	EU/TR
MSDS No.	80034	Yayın tarihi	25.Nis.2014	
Revizyon numarası	9.01			

Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz
--	-------------

2.11 Control of worker exposure Material transfers Dedicated facility (PROC 8b)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Maruziyet fırsatı olan yarı kapalı bir işlem içinde kullanın Local exhaust ventilation - efficiency of at least 95% Gelismis (endüstriyel) maruziyet kontrolleri varsayılmıştır.
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Assumes process temperature up to 40°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

2.12 Control of worker exposure Roller, spreader, flow application (PROC 10)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Local exhaust ventilation - efficiency of at least 90% Gelismis (endüstriyel) maruziyet kontrolleri varsayılmıştır.

**Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006**



Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Assumes process temperature up to 40°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

2.13 Control of worker exposure Dipping, immersion and pouring (PROC 13)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Local exhaust ventilation - efficiency of at least 90% Gelismis (endüstriyel) maruziyet kontrolleri varsayılmıştır.
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Assumes process temperature up to 40°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

2.14 Control of worker exposure Laboratory activities (PROC 15)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
----------------------------------	--

Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006



Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Gelismis (endüstriyel) maruziyet kontrolleri varsayılmıştır.
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Assumes process temperature up to 40°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

2.15 Control of worker exposure Material transfers Drum/batch transfers Transfer from/pouring from containers (PROC 9)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Maruziyet fırsatı olan yarı kapalı bir işlem içinde kullanın Local exhaust ventilation - efficiency of at least 90% Gelismis (endüstriyel) maruziyet kontrolleri varsayılmıştır.
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Assumes process temperature up to 40°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006



Ürün ismi	Ethyl acetate	Revize Edildiği Tarih	25.Nis.2014	EU/TR
MSDS No.	80034	Yayın tarihi	25.Nis.2014	
Revizyon numarası	9.01			

2.16 Control of worker exposure Tabletleme, kompresleme, ekstrüzyon, pelletleme ile üretilen preparatlar veya parçalar (PROC 14)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Local exhaust ventilation - efficiency of at least 90% Gelismis (endüstriyel) maruziyet kontrolleri varsayılmıştır.
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Assumes process temperature up to 40°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

3.Maruz kalma tahmini ve kaynağın referansı

Environment

Release route	Release rate (kg/day)	Release estimation method
Su	20	ESVOC 4
Hava	980	ESVOC 4
Toprak	0	ESVOC 4

Protection target	Exposure estimate (based on: EUSES)	RCR
Freshwater (sediment)	0.707 mg/kg dw	0.566
Freshwater (pelagic)	0.119 mg/L	0.456
Marine water (pelagic)	0.012 mg/L	0.457
Marine water (sediment)	0.071 mg/kg dw	0.567
Freshwater food chain (predators)	0.069 mg/kg ww	< 0.01
Marine water food chain (predators)	0.007 mg/kg ww	< 0.01
Marine water food chain (top predators)	0.001 mg/kg ww	< 0.01
Effluent	1.183 mg/L	< 0.01
Agricultural soil	0.081 mg/kg dw	0.336
Terrestrial food chain (predator)	0.028 mg/kg ww	< 0.01

**Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006**



Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

Risk characterisation for man via the environment

Inhalation: 0.224 mg/m³ - RCR: < 0.01
Oral: 0.005 mg/kg bw/day - RCR: < 0.01

Worker exposure

Long-term, systemic

Contributing scenario:	Inhalation	Dermal:	Combined routes:	Exposure Estimation Method:
General exposures (closed systems) (PROC 1)	Exposure: 0.037 mg/m ³ RCR: < 0.01	Exposure: 0.034 mg/kg bw/d RCR: < 0.01	RCR: < 0.01	Inhalation: Extended TRA workers Dermal: Extended TRA workers
General exposures (closed systems) Use in contained systems with sample collection (PROC 2)	Exposure: 18.36 mg/m ³ RCR: 0.025	Exposure: 1.37 mg/kg bw/d RCR: 0.022	RCR: 0.047	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Film formation - force drying (50 -100 °C). stoving (>100 °C). UV/EB radiation curing (PROC 2)	Exposure: 91.78 mg/m ³ RCR: 0.125	Exposure: 1.37 mg/kg bw/d RCR: 0.022	RCR: 0.147	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Mixing operations (closed systems) General exposures (PROC 3)	Exposure: 36.71 mg/m ³ RCR: 0.05	Exposure: 0.69 mg/kg bw/d RCR: 0.011	RCR: 0.061	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Film formation - air drying (PROC 4)	Exposure: 7.342 mg/m ³ RCR: 0.01	Exposure: 6.86 mg/kg bw/d RCR: 0.109	RCR: 0.119	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Preparation of material for application Mixing operations (open systems) (PROC 5)	Exposure: 18.36 mg/m ³ RCR: 0.025	Exposure: 13.71 mg/kg bw/d RCR: 0.218	RCR: 0.243	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Spraying (automatic/robotic) (PROC 7)	Exposure: 45.89 mg/m ³ RCR: 0.063	Exposure: 42.86 mg/kg bw/d RCR: 0.68	RCR: 0.743	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Spraying Manual (PROC 7)	Exposure: 45.89 mg/m ³ RCR: 0.063	Exposure: 42.86 mg/kg bw/d RCR: 0.68	RCR: 0.743	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Material transfers Non-dedicated facility (PROC 8a)	Exposure: 18.36 mg/m ³ RCR: 0.025	Exposure: 13.71 mg/kg bw/d RCR: 0.218	RCR: 0.243	Inhalation: Extended TRA workers Dermal: Extended TRA workers

**Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006**



Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

Material transfers Dedicated facility (PROC 8b)	Exposure: 4.589 mg/m ³ RCR: < 0.01	Exposure: 13.71 mg/kg bw/d RCR: 0.218	RCR: 0.224	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Roller, spreader, flow application (PROC 10)	Exposure: 18.36 mg/m ³ RCR: 0.025	Exposure: 27.43 mg/kg bw/d RCR: 0.435	RCR: 0.46	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Dipping, immersion and pouring (PROC 13)	Exposure: 18.36 mg/m ³ RCR: 0.025	Exposure: 13.71 mg/kg bw/d RCR: 0.218	RCR: 0.243	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Laboratory activities (PROC 15)	Exposure: 36.71 mg/m ³ RCR: 0.05	Exposure: 0.34 mg/kg bw/d RCR: < 0.01	RCR: 0.055	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Material transfers Drum/batch transfers Transfer from/pouring from containers (PROC 9)	Exposure: 18.36 mg/m ³ RCR: 0.025	Exposure: 6.86 mg/kg bw/d RCR: 0.109	RCR: 0.134	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Tabletleme, kompresleme, ekstrüzyon, pelletleme ile üretilen preparatlar veya parçalar (PROC 14)	Exposure: 18.36 mg/m ³ RCR: 0.025	Exposure: 3.43 mg/kg bw/d RCR: 0.054	RCR: 0.079	Inhalation: Extended TRA workers Dermal: Extended TRA workers

Acute systemic

Contributing Scenario:	Solunum:	Dermal:	Combined routes:	Exposure Estimation Method:
General exposures (closed systems) (PROC 1)	Exposure: 0.147 mg/m ³ RCR: < 0.01	Uygulanamaz	RCR: < 0.01	Extended TRA workers
General exposures (closed systems) Use in contained systems with sample collection (PROC 2)	Exposure: 73.42 mg/m ³ RCR: 0.05	Uygulanamaz	RCR: 0.05	Extended TRA workers
Film formation - force drying (50 -100 °C). stoving (>100 °C). UV/EB radiation curing (PROC 2)	Exposure: 367.1 mg/m ³ RCR: 0.25	Uygulanamaz	RCR: 0.25	Extended TRA workers

**Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006**



Ürün ismi	Ethyl acetate			EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014	
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014	

Mixing operations (closed systems) General exposures (PROC 3)	Exposure: 146.8 mg/m ³ RCR: 0.1	Uygulanamaz	RCR: 0.1	Extended TRA workers
Film formation - air drying (PROC 4)	Exposure: 29.37 mg/m ³ RCR: 0.02	Uygulanamaz	RCR: 0.02	Extended TRA workers
Preparation of material for application Mixing operations (open systems) (PROC 5)	Exposure: 73.42 mg/m ³ RCR: 0.05	Uygulanamaz	RCR: 0.05	Extended TRA workers
Spraying (automatic/robotic) (PROC 7)	Exposure: 183.6 mg/m ³ RCR: 0.125	Uygulanamaz	RCR: 0.125	Extended TRA workers
Spraying Manual (PROC 7)	Exposure: 183.6 mg/m ³ RCR: 0.125	Uygulanamaz	RCR: 0.125	Extended TRA workers
Material transfers Non-dedicated facility (PROC 8a)	Exposure: 73.42 mg/m ³ RCR: 0.05	Uygulanamaz	RCR: 0.05	Extended TRA workers
Material transfers Dedicated facility (PROC 8b)	Exposure: 18.36 mg/m ³ RCR: 0.012	Uygulanamaz	RCR: 0.012	Extended TRA workers
Roller, spreader, flow application (PROC 10)	Exposure: 73.42 mg/m ³ RCR: 0.05	Uygulanamaz	RCR: 0.05	Extended TRA workers
Dipping, immersion and pouring (PROC 13)	Exposure: 73.42 mg/m ³ RCR: 0.05	Uygulanamaz	RCR: 0.05	Extended TRA workers
Laboratory activities (PROC 15)	Exposure: 146.8 mg/m ³ RCR: 0.1	Uygulanamaz	RCR: 0.1	Extended TRA workers
Material transfers Drum/batch transfers Transfer from/pouring from containers (PROC 9)	Exposure: 73.42 mg/m ³ RCR: 0.05	Uygulanamaz	RCR: 0.05	Extended TRA workers
Tabletleme, kompresleme, ekstrüzyon, pelletleme ile üretilen preparatlar veya parçalar (PROC 14)	Exposure: 73.42 mg/m ³ RCR: 0.05	Uygulanamaz	RCR: 0.05	Extended TRA workers

Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006



Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

Local effects via inhalation route

Contributing scenario:	Akut:	Uzun süreli:	Exposure Estimation Method:
General exposures (closed systems) (PROC 1)	Exposure: 0.147 mg/m ³ RCR: < 0.01	Exposure: 0.037 mg/m ³ RCR: < 0.01	Extended TRA workers
General exposures (closed systems) Use in contained systems with sample collection (PROC 2)	Exposure: 73.42 mg/m ³ RCR: 0.05	Exposure: 18.36 mg/m ³ RCR: 0.025	Extended TRA workers
Film formation - force drying (50-100°C). stoving (>100°C). UV/EB radiation curing (PROC 2)	Exposure: 367.1 mg/m ³ RCR: 0.25	Exposure: 91.78 mg/m ³ RCR: 0.125	Extended TRA workers
Mixing operations (closed systems) General exposures (PROC 3)	Exposure: 146.8 mg/m ³ RCR: 0.1	Exposure: 36.71 mg/m ³ RCR: 0.05	Extended TRA workers
Film formation - air drying (PROC 4)	Exposure: 29.37 mg/m ³ RCR: 0.02	Exposure: 7.342 mg/m ³ RCR: 0.01	Extended TRA workers
Preparation of material for application Mixing operations (open systems) (PROC 5)	Exposure: 73.42 mg/m ³ RCR: 0.05	Exposure: 18.36 mg/m ³ RCR: 0.025	Extended TRA workers
Spraying (automatic/robotic) (PROC 7)	Exposure: 183.6 mg/m ³ RCR: 0.125	Exposure: 45.89 mg/m ³ RCR: 0.063	Extended TRA workers
Spraying Manual (PROC 7)	Exposure: 183.6 mg/m ³ RCR: 0.125	Exposure: 45.89 mg/m ³ RCR: 0.063	Extended TRA workers
Material transfers Non-dedicated facility (PROC 8a)	Exposure: 73.42 mg/m ³ RCR: 0.05	Exposure: 18.36 mg/m ³ RCR: 0.025	Extended TRA workers
Material transfers Dedicated facility (PROC 8b)	Exposure: 18.36 mg/m ³ RCR: 0.012	Exposure: 4.589 mg/m ³ RCR: < 0.01	Extended TRA workers
Roller, spreader, flow application (PROC 10)	Exposure: 73.42 mg/m ³ RCR: 0.05	Exposure: 18.36 mg/m ³ RCR: 0.012	Extended TRA workers

**Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006**



Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

Dipping, immersion and pouring (PROC 13)	Exposure: 73.42 mg/m ³ RCR: 0.05	Exposure: 18.36 mg/m ³ RCR: 0.025	Extended TRA workers
Laboratory activities (PROC 15)	Exposure: 146.8 mg/m ³ RCR: 0.1	Exposure: 36.71 mg/m ³ RCR: 0.05	Extended TRA workers
Material transfers Drum/batch transfers Transfer from/pouring from containers (PROC 9)	Exposure: 73.42 mg/m ³ RCR: 0.05	Exposure: 18.36 mg/m ³ RCR: 0.025	Extended TRA workers
Tabletleme, kompresleme, ekstrüzyon, pelletleme ile üretilen preparatlar veya parçalar (PROC 14)	Exposure: 73.42 mg/m ³ RCR: 0.05	Exposure: 18.36 mg/m ³ RCR: 0.025	Extended TRA workers

Local effects via dermal route

Risks resulting from short-term exposure are covered by the long-term exposure assessment.

4.Guidance to Downstream User to evaluate whether he works inside the boundaries set by the ES

The Use Descriptors assigned based on the ECHA guidance on use descriptors R-12 represent the current understanding of the uses of our product

(http://echa.europa.eu/documents/10162/13632/information_requirements_r12_en.pdf).

Please carefully consider whether the listed Exposure Scenarios reflect your uses of Celanese's product. Different uses can be addressed in the same exposure scenario if the same operational conditions and risk management measures apply to all these uses. In addition, various types of activities can be expressed by one category for workers' exposure and one category for environmental exposure.

ECHA's "Guidance for Downstream Users" provides details how to decide whether or not your use is covered by the exposure scenarios and what to do if this is not the case

(http://echa.europa.eu/documents/10162/13634/du_en.pdf).

Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

5. Exposure Scenario

1. Maruz kalma Senaryosu Başlığı Profesyonel kullanımı Professional application for paints, coatings, adhesives and other mixtures/products containing ethyl acetate

Environment Wide dispersive outdoor use of processing aids in open systems (ERC 8d, ERC 8a)

Worker

General exposures (closed systems) (PROC 1)
Filling / preparation of equipment from drums or containers (PROC 2)
General exposures (closed systems) with sample collection. Use in contained systems (PROC 2)
Preparation of material for application General exposures (PROC 3)
Film formation - air drying Indoor (PROC 4)
Film formation - air drying Outdoor (PROC 4)
Preparation of material for application Indoor (PROC 5)
Preparation of material for application Outdoor (PROC 5)
Material transfers; Drum/batch transfers; Non-dedicated facility (PROC 8a)
Material transfers; Drum/batch transfers; Dedicated facility (PROC 8b)
Roller, spreader, flow application Indoor (PROC 10)
Roller, spreader, flow application Outdoor (PROC 10)
Manual spraying Indoor (PROC 11)
Manual spraying Outdoor (PROC 11)
Dipping, immersion and pouring Indoor (PROC 13)
Dipping, immersion and pouring Outdoor (PROC 13)
Laboratory activities (PROC 15)
Hand application - finger paints, pastels, Adhesives Indoor (PROC 19)
Hand application - finger paints, pastels, Adhesives Outdoor (PROC 19)

2. Conditions of use affecting exposure

2.1 Çevresel maruziyetin kontrolü Wide dispersive outdoor use of processing aids in open systems (ERC 8d)

Product characteristics	Uygulanamaz
Amounts used, frequency and duration of use (or from service life)	Uygulanamaz
Technical and organizational conditions and measures	Uygulanamaz
Conditions and measures related to sewage treatment plant	Uygulanamaz
Conditions and measures related to treatment of waste (including article waste)	Dispose of waste or used sacks/containers according to local regulations

**Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006**



Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

Other conditions affecting environmental exposure	Uygulanamaz
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply beyond the REACH CSA	Uygulanamaz

2.2 Control of worker exposure General exposures (closed systems) (PROC 1)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Avoid carrying out activities involving exposure for more than 8 hours
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Use in closed process, no likelihood of exposure Temel (profesyonel) maruziyet varsayılır
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Processing not higher than °C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

2.3 Control of worker exposure Filling / preparation of equipment from drums or containers (PROC 2)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)

Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006



Ürün ismi	Ethyl acetate	Revize Edildiği Tarih	25.Nis.2014	EU/TR
MSDS No.	80034	Yayın tarihi	25.Nis.2014	
Revizyon numarası	9.01			

Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Use in closed, continuous process with occasional controlled exposure Temel (profesyonel) maruziyet varsayılır
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Processing not higher than 40.0°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

2.4 Control of worker exposure General exposures (closed systems) with sample collection. Use in contained systems (PROC 2)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Use in closed, continuous process with occasional controlled exposure Temel (profesyonel) maruziyet varsayılır
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Processing not higher than 40.0°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

2.5 Control of worker exposure Preparation of material for application General exposures (PROC 3)

Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006



Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a good standard of general or controlled ventilation. (3 to 5 air changes per hour). Use in closed batch process (synthesis or formulation) Temel (profesyonel) maruziyet varsayılır
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Processing not higher than 40.0°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

2.6 Control of worker exposure Film formation - air drying Indoor (PROC 4)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a good standard of general or controlled ventilation. (3 to 5 air changes per hour). Maruziyet fırsatı olan yarı kapalı bir işlem içinde kullanın Temel (profesyonel) maruziyet varsayılır
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Processing not higher than 40.0°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

**Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006**



Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

Çalışanların maruziyeti kontrolü Film formation - air drying Outdoor (PROC 4)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Maruziyet fırsatı olan yarı kapalı bir işlem içinde kullanın Temel (profesyonel) maruziyet varsayılır
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	Ensure operation is undertaken outdoors Processing not higher than 40.0°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

Çalışanların maruziyeti kontrolü Preparation of material for application Indoor (PROC 5)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a good standard of general or controlled ventilation. (3 to 5 air changes per hour). Local exhaust ventilation - efficiency of at least 80.0% Temel (profesyonel) maruziyet varsayılır
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Processing not higher than 40.0°C

**Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006**



Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz
---	-------------

2.9 Control of worker exposure Preparation of material for application Outdoor (PROC 5)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Temel (profesyonel) maruziyet varsayılır
Conditions and measures related to personal protection, hygiene and health evaluation	Wear a respirator providing a minimum efficiency of Daha fazla teknik özellik için bkz. SD, bölüm 8.
Other conditions affecting workers exposure	Ensure operation is undertaken outdoors Processing not higher than 40.0°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

2.10 Control of worker exposure Material transfers Drum/batch transfers Non-dedicated facility (PROC 8a)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a good standard of general or controlled ventilation. (3 to 5 air changes per hour). Temel (profesyonel) maruziyet varsayılır Local exhaust ventilation - efficiency of at least 80.0%

**Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006**



Ürün ismi	Ethyl acetate	Revize Edildiği Tarih	25.Nis.2014	EU/TR
MSDS No.	80034	Yayın tarihi	25.Nis.2014	
Revizyon numarası	9.01			

Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Processing not higher than 40.0°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

2.11 Control of worker exposure Material transfers Drum/batch transfers Dedicated facility (PROC 8b)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Maruziyet fırsatı olan yarı kapalı bir işlem içinde kullanın Local exhaust ventilation - efficiency of at least 90.0% Temel (profesyonel) maruziyet varsayılır
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Processing not higher than 40.0°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

2.12 Control of worker exposure Roller, spreader, flow application Indoor (PROC 10)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
----------------------------------	--

**Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006**



Ürün ismi	Ethyl acetate	Revize Edildiği Tarih	25.Nis.2014	EU/TR
MSDS No.	80034	Yayın tarihi	25.Nis.2014	
Revizyon numarası	9.01			

Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a good standard of general or controlled ventilation. (3 to 5 air changes per hour). Local exhaust ventilation - efficiency of at least 80.0% Temel (profesyonel) maruziyet varsayılır
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Processing not higher than 40.0°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

2.13 Control of worker exposure Roller, spreader, flow application Outdoor (PROC 10)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Temel (profesyonel) maruziyet varsayılır
Conditions and measures related to personal protection, hygiene and health evaluation	Wear a respirator providing a minimum efficiency of Daha fazla teknik özellik için bkz. SD, bölüm 8.
Other conditions affecting workers exposure	Ensure operation is undertaken outdoors Processing not higher than 40.0°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006



Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

2.14 Control of worker exposure Manual spraying Indoor (PROC 11)

Product (article) characteristic	Limit the concentration of the substance in the used product to 25%.
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a good standard of general or controlled ventilation. (3 to 5 air changes per hour). Local exhaust ventilation - efficiency of at least 80.0% Temel (profesyonel) maruziyet varsayılır
Conditions and measures related to personal protection, hygiene and health evaluation	Spesifik aktivite eğitimlerini verin ve kimyasal dirençli eldiven kullanın (EN374'e göre test edilmiş)
Other conditions affecting workers exposure	İçeride kullanımı Processing not higher than 40.0°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

2.15 Control of worker exposure Manual spraying Outdoor (PROC 11)

Product (article) characteristic	Limit the concentration of the substance in the used product to 25%.
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Temel (profesyonel) maruziyet varsayılır
Conditions and measures related to personal protection, hygiene and health evaluation	Spesifik aktivite eğitimlerini verin ve kimyasal dirençli eldiven kullanın (EN374'e göre test edilmiş) Wear a respirator providing a minimum efficiency of 90% Daha fazla teknik özellik için bkz. SD, bölüm 8.
Other conditions affecting workers exposure	Ensure operation is undertaken outdoors Processing not higher than 40.0°C

**Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006**



Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz
---	-------------

2.16 Control of worker exposure Dipping, immersion and pouring Indoor (PROC 13)

Product (article) characteristic	Limit the concentration of the substance in the used product to 25%.
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a good standard of general or controlled ventilation. (3 to 5 air changes per hour). Temel (profesyonel) maruziyet varsayılır
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Processing not higher than 40.0°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

2.17 Control of worker exposure Dipping, immersion and pouring Outdoor (PROC 13)

Product (article) characteristic	Limit the concentration of the substance in the used product to 25%.
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Temel (profesyonel) maruziyet varsayılır

**Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006**



Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	Ensure operation is undertaken outdoors Processing not higher than 40.0°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

2.18 Control of worker exposure Laboratory activities (PROC 15)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Temel (profesyonel) maruziyet varsayılır
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Processing not higher than 40.0°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

2.19 Control of worker exposure Hand application - finger paints, pastels, Adhesives Indoor (PROC 19)

Product (article) characteristic	Limit the concentration of the substance in the used product to 25%.
----------------------------------	--

**Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006**



Ürün ismi	Ethyl acetate	Revize Edildiği Tarih	25.Nis.2014	EU/TR
MSDS No.	80034	Yayın tarihi	25.Nis.2014	
Revizyon numarası	9.01			

Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a good standard of general or controlled ventilation. (5 to 10 air changes per hour). Temel (profesyonel) maruziyet varsayılır
Conditions and measures related to personal protection, hygiene and health evaluation	Spesifik aktivite eğitimlerini verin ve kimyasal dirençli eldiven kullanın (EN374'e göre test edilmiş)
Other conditions affecting workers exposure	İçeride kullanımı Processing not higher than 40.0°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

2.20 Control of worker exposure Hand application - finger paints, pastels, Adhesives Outdoor (PROC 19)

Product (article) characteristic	Limit the concentration of the substance in the used product to 5 %.
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Temel (profesyonel) maruziyet varsayılır
Conditions and measures related to personal protection, hygiene and health evaluation	Spesifik aktivite eğitimlerini verin ve kimyasal dirençli eldiven kullanın (EN374'e göre test edilmiş)
Other conditions affecting workers exposure	Ensure operation is undertaken outdoors Processing not higher than 40.0°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

3.Maruz kalma tahmini ve kaynağın referansı

**Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006**



Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

Environment

Release route	Release rate (kg/day)	Release estimation method
Su	0.014	Salınım faktörü ESVOC 4
Hava	0.666	Salınım faktörü ESVOC 4
Toprak	0	Salınım faktörü ESVOC 4

Protection target	Exposure estimate (based on: EUSES)	RCR
Freshwater (pelagic)	4.036E-4 mg/L	< 0.01
Freshwater (sediment)	0.002 mg/kg dw	< 0.01
Marine water (pelagic)	6.015E-5 mg/L	< 0.01
Marine water (sediment)	3.587E-4 mg/kg dw	< 0.01
Freshwater food chain (predators)	5.132E-4 mg/kg ww	< 0.01
Marine water food chain (predators)	7.928E-5 mg/kg ww	< 0.01
Marine water food chain (top predators)	7.473E-5 mg/kg ww	< 0.01
Effluent	8.041E-4 mg/L	< 0.01
Agricultural soil	1.292E-4 mg/kg dw	< 0.01
Terrestrial food chain (predator)	1.13E-4 mg/kg ww	< 0.01

Risk characterisation for man via the environment

Inhalation: 4.8E-4 mg/m³ - RCR: < 0.01

Oral: 1.603E-5 mg/kg bw/day - RCR: < 0.01

Worker exposure

Long-term, systemic

Contributing scenario:	Inhalation	Dermal:	Combined routes:	Exposure Estimation Method:
General exposures (closed systems) (PROC 1)	Exposure: 0.037 mg/m ³ RCR: < 0.01	Exposure: 0.034 mg/kg bw/d RCR: < 0.01	RCR: < 0.01	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Filling / preparation of equipment from drums or containers (PROC 2)	Exposure: 73.42 mg/m ³ RCR: 0.1	Exposure: 1.37 mg/kg bw/d RCR: 0.022	RCR: 0.122	Inhalation: Extended TRA workers Dermal: Extended TRA workers
General exposures (closed systems) Use in contained systems (PROC 2)	Exposure: 73.42 mg/m ³ RCR: 0.1	Exposure: 1.37 mg/kg bw/d RCR: 0.022	RCR: 0.122	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Preparation of material for application General exposures (PROC 3)	Exposure: 64.24 mg/m ³ RCR: 0.088	Exposure: 0.69 mg/kg bw/d RCR: 0.011	RCR: 0.098	Inhalation: Extended TRA workers Dermal: Extended TRA workers

**Emniyet esasları cetveli
(AT) kararname si uyarınca, No: 1907/2006**



Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

Film formation - air drying Indoor (PROC 4)	Exposure: 128.5 mg/m ³ RCR: 0.175	Exposure: 6.86 mg/kg bw/d RCR: 0.109	RCR: 0.284	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Film formation - air drying Outdoor (PROC 4)	Exposure: 128.5 mg/m ³ RCR: 0.175	Exposure: 6.86 mg/kg bw/d RCR: 0.109	RCR: 0.284	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Preparation of material for application Indoor (PROC 5)	Exposure: 51.39 mg/m ³ RCR: 0.07	Exposure: 13.71 mg/kg bw/d RCR: 0.218	RCR: 0.288	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Preparation of material for application Outdoor (PROC 5)	Exposure: 25.7 mg/m ³ RCR: 0.035	Exposure: 13.71 mg/kg bw/d RCR: 0.218	RCR: 0.253	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Material transfers Drum/batch transfers Non-dedicated facility (PROC 8a)	Exposure: 51.39 mg/m ³ RCR: 0.07	Exposure: 13.71 mg/kg bw/d RCR: 0.218	RCR: 0.288	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Material transfers Drum/batch transfers Dedicated facility (PROC 8b)	Exposure: 18.36 mg/m ³ RCR: 0.025	Exposure: 13.71 mg/kg bw/d RCR: 0.218	RCR: 0.243	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Roller, spreader, flow application Indoor (PROC 10)	Exposure: 51.39 mg/m ³ RCR: 0.07	Exposure: 27.43 mg/kg bw/d RCR: 0.435	RCR: 0.505	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Roller, spreader, flow application Outdoor (PROC 10)	Exposure: 25.7 mg/m ³ RCR: 0.035	Exposure: 27.43 mg/kg bw/d RCR: 0.435	RCR: 0.47	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Spraying Manual Indoor (PROC 11)	Exposure: 154.2 mg/m ³ RCR: 0.21	Exposure: 12.86 mg/kg bw/d RCR: 0.204	RCR: 0.414	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Spraying Manual Outdoor (PROC 11)	Exposure: 77.09 mg/m ³ RCR: 0.105	Exposure: 12.86 mg/kg bw/d RCR: 0.204	RCR: 0.309	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Dipping, immersion and pouring Indoor (PROC 13)	Exposure: 154.2 mg/m ³ RCR: 0.21	Exposure: 8.226 mg/kg bw/d RCR: 0.131	RCR: 0.341	Inhalation: Extended TRA workers Dermal: Extended TRA workers

**Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006**



Ürün ismi	Ethyl acetate			EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014	
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014	

Dipping, immersion and pouring Outdoor (PROC 13)	Exposure: 154.2 mg/m ³ RCR: 0.21	Exposure: 8.226 mg/kg bw/d RCR: 0.131	RCR: 0.341	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Laboratory activities (PROC 15)	Exposure: 36.71 mg/m ³ RCR: 0.05	Exposure: 0.34 mg/kg bw/d RCR: < 0.01	RCR: 0.055	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Hand application - finger paints, pastels, Adhesives Indoor (PROC 19)	Exposure: 66.08 mg/m ³ RCR: 0.09	Exposure: 16.97 mg/kg bw/d RCR: 0.269	RCR: 0.359	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Hand application - finger paints, pastels, Adhesives Outdoor (PROC 19)	Exposure: 51.39 mg/m ³ RCR: 0.07	Exposure: 5.657 mg/kg bw/d RCR: 0.09	RCR: 0.16	Inhalation: Extended TRA workers Dermal: Extended TRA workers

Acute systemic

Contributing Scenario:	Solumum:	Dermal:	Combined routes:	Exposure Estimation Method:
General exposures (closed systems) (PROC 1)	Exposure: 0.147 mg/m ³ RCR: < 0.01	Uygulanamaz	RCR: < 0.01	Extended TRA workers
Filling / preparation of equipment from drums or containers (PROC 2)	Exposure: 293.7 mg/m ³ RCR: 0.2	Uygulanamaz	RCR: 0.2	Extended TRA workers
General exposures (closed systems) Use in contained systems (PROC 2)	Exposure: 293.7 mg/m ³ RCR: 0.2	Uygulanamaz	RCR: 0.2	Extended TRA workers
Preparation of material for application General process exposures (PROC 3)	Exposure: 257 mg/m ³ RCR: 0.175	Uygulanamaz	RCR: 0.175	Extended TRA workers
Film formation - air drying Indoor (PROC 4)	Exposure: 513.9 mg/m ³ RCR: 0.35	Uygulanamaz	RCR: 0.35	Extended TRA workers

Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006



Ürün ismi	Ethyl acetate			EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014	
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014	

Film formation - air drying Outdoor (PROC 4)	Exposure: 513.9 mg/m ³ RCR: 0.35	Uygulanamaz	RCR: 0.35	Extended TRA workers
Preparation of material for application Indoor (PROC 5)	Exposure: 205.6 mg/m ³ RCR: 0.14	Uygulanamaz	RCR: 0.14	Extended TRA workers
Preparation of material for application Outdoor (PROC 5)	Exposure: 102.8 mg/m ³ RCR: 0.07	Uygulanamaz	RCR: 0.07	Extended TRA workers
Material transfers Drum/batch transfers Non-dedicated facility (PROC 8a)	Exposure: 205.6 mg/m ³ RCR: 0.14	Uygulanamaz	RCR: 0.14	Extended TRA workers
Material transfers Drum/batch transfers Dedicated facility (PROC 8b)	Exposure: 73.42 mg/m ³ RCR: 0.05	Uygulanamaz	RCR: 0.05	Extended TRA workers
Roller, spreader, flow application Indoor (PROC 10)	Exposure: 205.6 mg/m ³ RCR: 0.14	Uygulanamaz	RCR: 0.14	Extended TRA workers
Roller, spreader, flow application Outdoor (PROC 10)	Exposure: 102.8 mg/m ³ RCR: 0.07	Uygulanamaz	RCR: 0.07	Extended TRA workers
Spraying Manual Indoor (PROC 11)	Exposure: 616.7 mg/m ³ RCR: 0.42	Uygulanamaz	RCR: 0.42	Extended TRA workers
Spraying Manual Outdoor (PROC 11)	Exposure: 308.4 mg/m ³ RCR: 0.21	Uygulanamaz	RCR: 0.21	Extended TRA workers
Dipping, immersion and pouring Indoor (PROC 13)	Exposure: 616.7 mg/m ³ RCR: 0.42	Uygulanamaz	RCR: 0.42	Extended TRA workers
Dipping, immersion and pouring Outdoor (PROC 13)	Exposure: 616.7 mg/m ³ RCR: 0.42	Uygulanamaz	RCR: 0.42	Extended TRA workers

**Emniyet esasları cetveli
(AT) kararname si yararlanca, No: 1907/2006**



Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

Laboratory activities (PROC 15)	Exposure: 146.8 mg/m ³ RCR: 0.1	Uygulanamaz	RCR: 0.1	Extended TRA workers
Hand application - finger paints, pastels, Adhesives Indoor (PROC 19)	Exposure: 264.3 mg/m ³ RCR: 0.18	Uygulanamaz	RCR: 0.18	Extended TRA workers
Hand application - finger paints, pastels, Adhesives Outdoor (PROC 19)	Exposure: 205.6 mg/m ³ RCR: 0.14	Uygulanamaz	RCR: 0.14	Extended TRA workers

Local effects via inhalation route

Contributing scenario:	Akut:	Uzun süreli:	Exposure Estimation Method:
General exposures (closed systems) (PROC 1)	Exposure: 0.147 mg/m ³ RCR: < 0.01	Exposure: 0.037 mg/m ³ RCR: < 0.01	Extended TRA workers
Filling / preparation of equipment from drums or containers (PROC 2)	Exposure: 293.7 mg/m ³ RCR: 0.2	Exposure: 73.42 mg/m ³ RCR: 0.1	Extended TRA workers
General exposures (closed systems) Use in contained systems (PROC 2)	Exposure: 293.7 mg/m ³ RCR: 0.2	Exposure: 73.42 mg/m ³ RCR: 0.1	Extended TRA workers
Preparation of material for application General exposures (PROC 3)	Exposure: 257 mg/m ³ RCR: 0.175	Exposure: 64.24 mg/m ³ RCR: 0.088	Extended TRA workers
Film formation - air drying Indoor (PROC 4)	Exposure: 513.9 mg/m ³ RCR: 0.35	Exposure: 128.5 mg/m ³ RCR: 0.175	Extended TRA workers
Film formation - air drying Outdoor (PROC 4)	Exposure: 513.9 mg/m ³ RCR: 0.35	Exposure: 128.5 mg/m ³ RCR: 0.175	Extended TRA workers
Preparation of material for application Indoor (PROC 5)	Exposure: 205.6 mg/m ³ RCR: 0.14	Exposure: 51.39 mg/m ³ RCR: 0.07	Extended TRA workers

Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006



Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

Preparation of material for application Outdoor (PROC 5)	Exposure: 102.8 mg/m ³ RCR: 0.07	Exposure: 25.7 mg/m ³ RCR: 0.035	Extended TRA workers
Material transfers Drum/batch transfers Non-dedicated facility (PROC 8a)	Exposure: 205.6 mg/m ³ RCR: 0.14	Exposure: 51.39 mg/m ³ RCR: 0.07	Extended TRA workers
Material transfers Drum/batch transfers Dedicated facility (PROC 8b)	Exposure: 73.42 mg/m ³ RCR: 0.05	Exposure: 18.36 mg/m ³ RCR: 0.025	Extended TRA workers
Roller, spreader, flow application Indoor (PROC 10)	Exposure: 205.6 mg/m ³ RCR: 0.14	Exposure: 51.39 mg/m ³ RCR: 0.07	Extended TRA workers
Roller, spreader, flow application Outdoor (PROC 10)	Exposure: 102.8 mg/m ³ RCR: 0.07	Exposure: 25.7 mg/m ³ RCR: 0.035	Extended TRA workers
Spraying Manual Indoor (PROC 11)	Exposure: 616.7 mg/m ³ RCR: 0.42	Exposure: 154.2 mg/m ³ RCR: 0.21	Extended TRA workers
Spraying Manual Outdoor (PROC 11)	Exposure: 308.4 mg/m ³ RCR: 0.21	Exposure: 77.09 mg/m ³ RCR: 0.105	Extended TRA workers
Dipping, immersion and pouring Indoor (PROC 13)	Exposure: 616.7 mg/m ³ RCR: 0.42	Exposure: 154.2 mg/m ³ RCR: 0.21	Extended TRA workers
Dipping, immersion and pouring Outdoor (PROC 13)	Exposure: 616.7 mg/m ³ RCR: 0.42	Exposure: 154.2 mg/m ³ RCR: 0.21	Extended TRA workers
Laboratory activities (PROC 15)	Exposure: 146.8 mg/m ³ RCR: 0.1	Exposure: 36.71 mg/m ³ RCR: 0.05	Extended TRA workers
Hand application - finger paints, pastels, Adhesives Indoor (PROC 19)	Exposure: 264.3 mg/m ³ RCR: 0.18	Exposure: 66.08 mg/m ³ RCR: 0.09	Extended TRA workers

Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006



Ürün ismi	Ethyl acetate			EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014	
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014	

Hand application - finger paints, pastels, Adhesives Outdoor (PROC 19)	Exposure: 205.6 mg/m ³ RCR: 0.14	Exposure: 51.39 mg/m ³ RCR: 0.07	Extended TRA workers
--	--	--	----------------------

Local effects via dermal route

Risks resulting from short-term exposure are covered by the long-term exposure assessment.

4.Guidance to Downstream User to evaluate whether he works inside the boundaries set by the ES

The Use Descriptors assigned based on the ECHA guidance on use descriptors R-12 represent the current understanding of the uses of our product

(http://echa.europa.eu/documents/10162/13632/information_requirements_r12_en.pdf).

Please carefully consider whether the listed Exposure Scenarios reflect your uses of Celanese's product. Different uses can be addressed in the same exposure scenario if the same operational conditions and risk management measures apply to all these uses. In addition, various types of activities can be expressed by one category for workers' exposure and one category for environmental exposure.

ECHA's "Guidance for Downstream Users" provides details how to decide whether or not your use is covered by the exposure scenarios and what to do if this is not the case

(http://echa.europa.eu/documents/10162/13634/du_en.pdf).

Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

6. Exposure Scenario

1. Title of Exposure scenario Industrial uses: Uses of substances as such or in preparations at industrial sites
Use as laboratory reagent

Environment Industrial use of processing aids in processes and products, not becoming part of articles (ERC 4)

Worker

Cleaning Wiping Rolling, Brushing Industrial (PROC 10)
Laboratory activities Industrial (PROC 15)

2. Conditions of use affecting exposure

2.1 Çevresel maruziyetin kontrolü Industrial use of processing aids in processes and products, not becoming part of articles (ERC 4)

Product characteristics	Uygulanamaz
Amounts used, frequency and duration of use (or from service life)	Daily amount per site <=1.0 tonnes/day Annual amount per site <=20.0 tonnes/year
Technical and organizational conditions and measures	Uygulanamaz
Conditions and measures related to sewage treatment plant	Estimated substance removal from wastewater via domestic sewage treatment 88.2 % Assumed domestic sewage treatment plant flow >=2000 m ³ /d
Conditions and measures related to treatment of waste (including article waste)	Dispose of waste or used sacks/containers according to local regulations
Other conditions affecting environmental exposure	Receiving surface water flow rate >= 18000 m ³ /d
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply beyond the REACH CSA	Uygulanamaz

2.2 Control of worker exposure (PROC 10)
Cleaning Wiping Rolling, Brushing Industrial

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
----------------------------------	--

**Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006**



Ürün ismi	Ethyl acetate	Revize Edildiği Tarih	25.Nis.2014	EU/TR
MSDS No.	80034	Yayın tarihi	25.Nis.2014	
Revizyon numarası	9.01			

Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Local exhaust ventilation - efficiency of at least 90.0% Gelismis (endüstriyel) maruziyet kontrolleri varsayılmıştır.
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Processing not higher than 40.0°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

2.3 Control of worker exposure Laboratory activities Industrial (PROC 15)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Gelismis (endüstriyel) maruziyet kontrolleri varsayılmıştır.
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Processing not higher than 40.0°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

3.Maruz kalma tahmini ve kaynağın referansı

**Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006**



Ürün ismi	Ethyl acetate	Revize Edildiği Tarih	25.Nis.2014	EU/TR
MSDS No.	80034	Yayın tarihi	25.Nis.2014	
Revizyon numarası	9.01			

Environment

Release route	Release rate (kg/day)	Release estimation method
Su	20	Salınım faktörü ESVOC 4
Hava	25	Salınım faktörü ESVOC 4
Toprak	0.1	Salınım faktörü ERC 2

Protection target	Exposure estimate (based on: EUSES)	RCR
Freshwater (pelagic)	0.119 mg/L	0.456
Freshwater (sediment)	0.707 mg/kg dw	0.566
Marine water (pelagic)	0.012 mg/L	0.457
Marine water (sediment)	0.071 mg/kg dw	0.567
Freshwater food chain (predators)	0.005 mg/kg ww	< 0.01
Marine water food chain (predators)	5.312E-4 mg/kg ww	< 0.01
Marine water food chain (top predators)	1.651E-4 mg/kg ww	< 0.01
Effluent	1.183 mg/L	< 0.01
Agricultural soil	0.054 mg/kg dw	0.226
Terrestrial food chain (predator)	0.009 mg/kg ww	< 0.01

Risk characterisation for man via the environment

Inhalation: 8.608E-4 mg/m³ - RCR: < 0.01

Oral: 7.476E-4 mg/kg bw/day - RCR: < 0.01

Worker exposure

Long-term, systemic

Contributing scenario:	Inhalation	Dermal:	Combined routes:	Exposure Estimation Method:
Laboratory activities (PROC 15)	Exposure: 36.71 mg/m ³ RCR: 0.05	Exposure: 0.34 mg/kg bw/d RCR: < 0.01	RCR: 0.055	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Cleaning Wiping Rolling, Brushing Industrial (PROC 10)	Exposure: 18.36 mg/m ³ RCR: 0.025	Exposure: 37.43 mg/kg bw/d RCR: 0.435	RCR: 0.46	Inhalation: Extended TRA workers Dermal: Extended TRA workers

Acute systemic

Contributing Scenario:	Solumum:	Dermal:	Combined routes:	Exposure Estimation Method:

**Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006**



Ürün ismi	Ethyl acetate			EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014	
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014	

Cleaning Wiping Rolling, Brushing Industrial (PROC 10)	Exposure: 73.42 mg/m ³ RCR: 0.05	Uygulanamaz	RCR: 0.05	Extended TRA workers
Laboratory activities (PROC 15)	Exposure: 146.8 mg/m ³ RCR: 0.1	Uygulanamaz	RCR: 0.1	Extended TRA workers

Local effects via inhalation route

Contributing scenario:	Akut:	Uzun süreli:	Exposure Estimation Method:
Cleaning Wiping Rolling, Brushing Industrial (PROC 10)	Exposure: 73.42 mg/m ³ RCR: 0.05	Exposure: 18.36 mg/m ³ RCR: 0.025	Extended TRA workers
Laboratory activities (PROC 15)	Exposure: 146.8 mg/m ³ RCR: 0.1	Exposure: 36.71 mg/m ³ RCR: 0.05	Extended TRA workers

Local effects via dermal route

Risks resulting from short-term exposure are covered by the long-term exposure assessment.

4.Guidance to Downstream User to evaluate whether he works inside the boundaries set by the ES

The Use Descriptors assigned based on the ECHA guidance on use descriptors R-12 represent the current understanding of the uses of our product

(http://echa.europa.eu/documents/10162/13632/information_requirements_r12_en.pdf).

Please carefully consider whether the listed Exposure Scenarios reflect your uses of Celanese's product. Different uses can be addressed in the same exposure scenario if the same operational conditions and risk management measures apply to all these uses. In addition, various types of activities can be expressed by one category for workers' exposure and one category for environmental exposure.

ECHA's "Guidance for Downstream Users" provides details how to decide whether or not your use is covered by the exposure scenarios and what to do if this is not the case

(http://echa.europa.eu/documents/10162/13634/du_en.pdf).

Ürün ismi	Ethyl acetate	Revize Edildiği Tarih	25.Nis.2014	EU/TR
MSDS No.	80034	Yayın tarihi	25.Nis.2014	
Revizyon numarası	9.01			

7. Exposure Scenario

1. Maruz kalma Senaryosu Professional (end) use of ethyl acetate as a laboratory reagent;
Başlığı

Environment Professional (end) use of ethyl acetate as a laboratory reagent (ERC 8a)

Worker

Cleaning Wiping Rolling, Brushing Professional (PROC 10)
Use as laboratory reagent (PROC 15)

2. Conditions of use affecting exposure

2.1 Çevresel maruziyetin kontrolü Professional (end) use of ethyl acetate as a laboratory reagent (ERC 8a)

Product characteristics	Uygulanamaz
Amounts used, frequency and duration of use (or from service life)	Uygulanamaz
Technical and organizational conditions and measures	Uygulanamaz
Conditions and measures related to sewage treatment plant	Uygulanamaz
Conditions and measures related to treatment of waste (including article waste)	Dispose of waste or used sacks/containers according to local regulations
Other conditions affecting environmental exposure	Uygulanamaz
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply beyond the REACH CSA	Uygulanamaz

2.2 Control of worker exposure Cleaning Wiping Rolling, Brushing Professional (PROC 10)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
----------------------------------	--

**Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006**



Ürün ismi	Ethyl acetate	Revize Edildiği Tarih	25.Nis.2014	EU/TR
MSDS No.	80034	Yayın tarihi	25.Nis.2014	
Revizyon numarası	9.01			

Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Local exhaust ventilation - efficiency of at least Temel (profesyonel) maruziyet varsayılır
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Processing not higher than 40.0°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

2.3 Control of worker exposure Laboratory activities Professional (PROC 15)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Temel (profesyonel) maruziyet varsayılır
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Processing not higher than 40.0°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

3.Maruz kalma tahmini ve kaynağın referansı

Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006



Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

Environment

Release route	Release rate (kg/day)	Release estimation method
Su	2	Salinim faktörü ESVOC 8
Hava	2	Salinim faktörü ESVOC 8
Toprak	0	ERC based

Protection target	Exposure estimate (based on: EUSES)	RCR
Freshwater (pelagic)	0.012 mg/L	0.047
Freshwater (sediment)	0.072 mg/kg dw	0.058
Marine water (pelagic)	0.001 mg/L	0.047
Marine water (sediment)	0.007 mg/kg dw	0.059
Freshwater food chain (predators)	0.009 mg/kg ww	< 0.01
Marine water food chain (predators)	9.088E-4 mg/kg ww	< 0.01
Marine water food chain (top predators)	2.406E-4 mg/kg ww	< 0.01
Effluent	0.118 mg/L	< 0.01
Agricultural soil	0.006 mg/kg dw	0.023
Terrestrial food chain (predator)	0.001 mg/kg ww	< 0.01

Risk characterisation for man via the environment

Inhalation: 4.942E-4 mg/m³ - RCR: < 0.01

Oral: 3.904E-4 mg/kg bw/day - RCR: < 0.01

Worker exposure

Long-term, systemic

Contributing scenario:	Inhalation	Dermal:	Combined routes:	Exposure Estimation Method:
Cleaning Wiping Rolling, Brushing Professional (PROC 10)	Exposure: 73.42 mg/m ³ RCR: 0.1	Exposure: 27.43 mg/kg bw/d RCR: 0.435	RCR: 0.535	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Laboratory activities (PROC 15)	Exposure: 36.71 mg/m ³ RCR: 0.05	Exposure: 0.34 mg/kg bw/d RCR: < 0.01	RCR: 0.055	Inhalation: Extended TRA workers Dermal: Extended TRA workers

Acute systemic

Contributing Scenario:	Solunum:	Dermal:	Combined routes:	Exposure Estimation Method:
------------------------	----------	---------	------------------	-----------------------------

**Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006**



Ürün ismi	Ethyl acetate			EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014	
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014	

Cleaning Wiping Rolling, Brushing Professional (PROC 10)	Exposure: 293.7 mg/m ³ RCR: 0.2	Uygulanamaz	RCR: 0.2	Extended TRA workers
Laboratory activities (PROC 15)	Exposure: 146.8 mg/m ³ RCR: 0.1	Uygulanamaz	RCR: 0.1	Extended TRA workers

Local effects via inhalation route

Contributing scenario:	Akut:	Uzun süreli:	Exposure Estimation Method:
Cleaning Wiping Rolling, Brushing Professional (PROC 10)	Exposure: 293.7 mg/m ³ RCR: 0.2	Exposure: 73.42 mg/m ³ RCR: 0.1	Extended TRA workers
Laboratory activities (PROC 15)	Exposure: 146.8 mg/m ³ RCR: 0.1	Exposure: 36.71 mg/m ³ RCR: 0.05	Extended TRA workers

Local effects via dermal route

Risks resulting from short-term exposure are covered by the long-term exposure assessment.

4.Guidance to Downstream User to evaluate whether he works inside the boundaries set by the ES

The Use Descriptors assigned based on the ECHA guidance on use descriptors R-12 represent the current understanding of the uses of our product

(http://echa.europa.eu/documents/10162/13632/information_requirements_r12_en.pdf).

Please carefully consider whether the listed Exposure Scenarios reflect your uses of Celanese's product. Different uses can be addressed in the same exposure scenario if the same operational conditions and risk management measures apply to all these uses. In addition, various types of activities can be expressed by one category for workers' exposure and one category for environmental exposure.

ECHA's "Guidance for Downstream Users" provides details how to decide whether or not your use is covered by the exposure scenarios and what to do if this is not the case

(http://echa.europa.eu/documents/10162/13634/du_en.pdf).

Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

8. Exposure Scenario

1. Maruz kalma Senaryosu Başlığı

Professional end-use; Use in agrochemicals;

Environment Wide dispersive outdoor use of processing aids in open systems (ERC 8d) (ERC 8a)

Worker

Transfer from/pouring from containers (PROC 8b)

Preparatlar ve malların formülasyonu için yığın işlemlerindeki karıştırma veya harmanlamalarda (çoklu etap ve/veya kaydeder temas) (PROC 4)

Spraying/fogging by manual application Indoor with local exhaust ventilation (PROC 11)

Spraying/fogging by manual application Outdoor (PROC 11)

Spraying/fogging by manual application Indoor With local exhaust ventilation With potential for aerosol generation (PROC 11)

Spraying/fogging by manual application Outdoor With potential for aerosol generation (PROC 11)

Spraying/fogging by machine application Outdoor (PROC 11)

Spraying/fogging by machine application Outdoor With potential for aerosol generation (PROC 11)

Ad hoc manual application via trigger sprays, dipping, etc (PROC 11)

Equipment cleaning and maintenance (PROC 8a)

Disposal of wastes (PROC 8a)

Depolama with sample collection (PROC 2)

2. Conditions of use affecting exposure

2.1 Çevresel maruziyetin kontrolü Wide dispersive outdoor use of processing aids in open systems (ERC 8d)

Product characteristics	Uygulanamaz
Amounts used, frequency and duration of use (or from service life)	Uygulanamaz
Technical and organizational conditions and measures	Uygulanamaz
Conditions and measures related to sewage treatment plant	Uygulanamaz
Conditions and measures related to treatment of waste (including article waste)	Dispose of waste or used sacks/containers according to local regulations
Other conditions affecting environmental exposure	Uygulanamaz

Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006



Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply beyond the REACH CSA	Uygulanamaz
--	-------------

2.2 Control of worker exposure Transfer from/pouring from containers (PROC 8b)

Product (article) characteristic	Limit the concentration of the substance in the used product to 25%.
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a good standard of general or controlled ventilation. (5 to 10 air changes per hour). Maruziyet fırsatı olan yarı kapalı bir işlem içinde kullanın Temel (profesyonel) maruziyet varsayılır
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Processing not higher than 40.0°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

2.3 Control of worker exposure Preparatlar ve malların formülasyonu için yığın işlemlerindeki karıştırma veya harmanlamalarda (çoklu etap ve/veya kaydadeğer temas) (PROC 4)

Product (article) characteristic	Limit the concentration of the substance in the used product to 25%.
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a good standard of general or controlled ventilation. (5 to 10 air changes per hour). Maruziyet fırsatı olan yarı kapalı bir işlem içinde kullanın Temel (profesyonel) maruziyet varsayılır

**Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006**



Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Processing not higher than 40.0°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

2.4 Control of worker exposure Spraying/fogging by manual application Indoor With local exhaust ventilation (PROC 11)

Product (article) characteristic	Limit the concentration of the substance in the used product to 25%.
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a good standard of general or controlled ventilation. (3 to 5 air changes per hour). Local exhaust ventilation - efficiency of at least 80% Temel (profesyonel) maruziyet varsayilir
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Processing not higher than 40.0°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

2.5 Control of worker exposure Spraying/fogging by manual application Outdoor (PROC 11)

Product (article) characteristic	Limit the concentration of the substance in the used product to 25%.
----------------------------------	--

**Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006**



Ürün ismi	Ethyl acetate	Revize Edildiği Tarih	25.Nis.2014	EU/TR
MSDS No.	80034	Yayın tarihi	25.Nis.2014	
Revizyon numarası	9.01			

Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Temel (profesyonel) maruziyet varsayılır
Conditions and measures related to personal protection, hygiene and health evaluation	Spesifik aktivite eğitimlerini verin ve kimyasal dirençli eldiven kullanın (EN374'e göre test edilmiş) Wear a respirator providing a minimum efficiency of 90% Daha fazla teknik özellik için bkz. SD, bölüm 8.
Other conditions affecting workers exposure	Ensure operation is undertaken outdoors Processing not higher than 40.0°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

2.6 Control of worker exposure Spraying/fogging by manual application Indoor With local exhaust ventilation With potential for aerosol generation (PROC 11)

Product (article) characteristic	Limit the concentration of the substance in the used product to 25%.
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Local exhaust ventilation - efficiency of at least 80.0% Temel (profesyonel) maruziyet varsayılır
Conditions and measures related to personal protection, hygiene and health evaluation	Spesifik aktivite eğitimlerini verin ve kimyasal dirençli eldiven kullanın (EN374'e göre test edilmiş)
Other conditions affecting workers exposure	İçeride kullanımı Processing not higher than 40.0°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006



Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

Çalışanların maruziyeti kontrolü Spraying/fogging by manual application Outdoor With potential for aerosol generation (PROC 11)

Product (article) characteristic	Limit the concentration of the substance in the used product to 25%.
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Temel (profesyonel) maruziyet varsayılır
Conditions and measures related to personal protection, hygiene and health evaluation	Spesifik aktivite eğitimlerini verin ve kimyasal dirençli eldiven kullanın (EN374'e göre test edilmiş) Wear a respirator providing a minimum efficiency of 90.0% Daha fazla teknik özellik için bkz. SD, bölüm 8.
Other conditions affecting workers exposure	Ensure operation is undertaken outdoors Processing not higher than 40.0°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

Çalışanların maruziyeti kontrolü Spraying/fogging by machine application Outdoor (PROC 11)

Product (article) characteristic	Limit the concentration of the substance in the used product to 25%.
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Temel (profesyonel) maruziyet varsayılır
Conditions and measures related to personal protection, hygiene and health evaluation	Spesifik aktivite eğitimlerini verin ve kimyasal dirençli eldiven kullanın (EN374'e göre test edilmiş) Wear a respirator providing a minimum efficiency of 95.0% Daha fazla teknik özellik için bkz. SD, bölüm 8.
Other conditions affecting workers exposure	Ensure operation is undertaken outdoors Processing not higher than 40.0°C

**Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006**



Ürün ismi	Ethyl acetate	Revize Edildiği Tarih	25.Nis.2014	EU/TR
MSDS No.	80034	Yayın tarihi	25.Nis.2014	
Revizyon numarası	9.01			

Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz
--	-------------

2.9 Control of worker exposure Spraying/fogging by machine application Outdoor With potential for aerosol generation (PROC 11)

Product (article) characteristic	Limit the concentration of the substance in the used product to 25%.
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Temel (profesyonel) maruziyet varsayılır
Conditions and measures related to personal protection, hygiene and health evaluation	Spesifik aktivite eğitimlerini verin ve kimyasal dirençli eldiven kullanın (EN374'e göre test edilmiş) Wear a respirator providing a minimum efficiency of 95.0% Daha fazla teknik özellik için bkz. SD, bölüm 8.
Other conditions affecting workers exposure	Ensure operation is undertaken outdoors Processing not higher than 40.0°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

2.10 Control of worker exposure Ad hoc manual application via trigger sprays, dipping, etc (PROC 13)

Product (article) characteristic	Limit the concentration of the substance in the used product to 25%.
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a good standard of general or controlled ventilation. (5 to 10 air changes per hour). Temel (profesyonel) maruziyet varsayılır

Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006



Ürün ismi	Ethyl acetate	Revize Edildiği Tarih	25.Nis.2014	EU/TR
MSDS No.	80034	Yayın tarihi	25.Nis.2014	
Revizyon numarası	9.01			

Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Processing not higher than 40.0°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

2.11 Control of worker exposure Equipment cleaning and maintenance (PROC 8a)

Product (article) characteristic	Limit the concentration of the substance in the used product to 25%.
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Temel (profesyonel) maruziyet varsayılır
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Processing not higher than 40.0°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

2.12 Control of worker exposure Disposal of wastes (PROC 8a)

Worker Exposure

Product (article) characteristic	Limit the concentration of the substance in the used product to 25%.
----------------------------------	--

Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006



Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a good standard of general or controlled ventilation. (3 to 5 air changes per hour). Temel (profesyonel) maruziyet varsayılır
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Processing not higher than 40.0°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

2.13 Control of worker exposure Depolama with sample collection (PROC 2)

Product (article) characteristic	Limit the concentration of the substance in the used product to 25%.
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Use in closed, continuous process with occasional controlled exposure Temel (profesyonel) maruziyet varsayılır
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Processing not higher than 40.0°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

**Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006**



Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

3.Maruz kalma tahmini ve kaynağın referansı

Environment

Release route	Release rate (kg/day)	Release estimation method
Su	0.003	Salınım faktörü ESVOC 8
Hava	0.247	Salınım faktörü ESVOC 8
Toprak	0.025	Salınım faktörü ESVOC 8

Protection target	Exposure estimate (based on: EUSES)	RCR
Freshwater (pelagic)	3.393E-4 mg/L	< 0.01
Freshwater (sediment)	0.002 mg/kg dw	< 0.01
Marine water (pelagic)	5.372E-5 mg/L	< 0.01
Marine water (sediment)	3.204E-4 mg/kg dw	< 0.01
Freshwater food chain (predators)	4.679E-4 mg/kg ww	< 0.01
Marine water food chain (predators)	7.474E-5 mg/kg ww	< 0.01
Marine water food chain (top predators)	7.383E-5 mg/kg ww	< 0.01
Sewage treatment plant	1.62E-4 mg/L	< 0.01
Agricultural soil	9.985E-5 mg/kg dw	< 0.01
Terrestrial food chain (predator)	1.081E-4 mg/kg ww	< 0.01

Risk characterisation for man via the environment

Inhalation: 4.8E-4 mg/m³ - RCR: < 0.01

Oral: 1.398E-5 mg/kg bw/day - RCR: < 0.01

Worker exposure

Long-term, systemic

Contributing scenario:	Inhalation	Dermal:	Combined routes:	Exposure Estimation Method:
Transfer from/pouring from containers (PROC 8b)	Exposure: 33.04 mg/m ³ RCR: 0.045	Exposure: 8.226 mg/kg bw/d RCR: 0.131	RCR: 0.176	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Preparatlar ve malların formülasyonu için yığın işlemlerindeki karıştırma veya harmanlamalarda (çoklu etap ve/veya kaydađer temas) (PROC 4)	Exposure: 33.04 mg/m ³ RCR: 0.045	Exposure: 4.116 mg/kg bw/d RCR: 0.065	RCR: 0.11	Inhalation: Extended TRA workers Dermal: Extended TRA workers

Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006



Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

Spraying and fogging by manual application Indoor with local exhaust ventilation (PROC 11)	Exposure: 154.2 mg/m ³ RCR: 0.21	Exposure: 12.86 mg/kg bw/d RCR: 0.204	RCR: 0.414	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Spraying and fogging by manual application Outdoor (PROC 11)	Exposure: 77.09 mg/m ³ RCR: 0.105	Exposure: 12.86 mg/kg bw/d RCR: 0.204	RCR: 0.309	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Spraying/fogging by manual application Indoor without local exhaust ventilation With potential for aerosol generation (PROC 11)	Exposure: 220.3 mg/m ³ RCR: 0.3	Exposure: 12.86 mg/kg bw/d RCR: 0.204	RCR: 0.504	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Spraying/fogging by manual application Outdoor With potential for aerosol generation (PROC 11)	Exposure: 77.09 mg/m ³ RCR: 0.105	Exposure: 12.86 mg/kg bw/d RCR: 0.204	RCR: 0.309	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Spraying/fogging by machine application Outdoor (PROC 11)	Exposure: 38.55 mg/m ³ RCR: 0.053	Exposure: 12.86 mg/kg bw/d RCR: 0.204	RCR: 0.257	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Spraying/fogging by machine application Outdoor With potential for aerosol generation (PROC 11)	Exposure: 38.55 mg/m ³ RCR: 0.053	Exposure: 12.86 mg/kg bw/d RCR: 0.204	RCR: 0.257	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Ad hoc manual application via trigger sprays, dipping, etc (PROC 13)	Exposure: 66.08 mg/m ³ RCR: 0.09	Exposure: 8.226 mg/kg bw/d RCR: 0.131	RCR: 0.221	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Equipment cleaning and maintenance (PROC 8a)	Exposure: 220.3 mg/m ³ RCR: 0.3	Exposure: 8.226 mg/kg bw/d RCR: 0.131	RCR: 0.431	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Disposal of wastes (PROC 8a)	Exposure: 51.39 mg/m ³ RCR: 0.07	Exposure: 2.742 mg/kg bw/d RCR: 0.044	RCR: 0.114	Inhalation: Extended TRA workers Dermal: Extended TRA workers

Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006



Ürün ismi	Ethyl acetate	Revize Edildiği Tarih	25.Nis.2014	EU/TR
MSDS No.	80034	Yayın tarihi	25.Nis.2014	
Revizyon numarası	9.01			

Depolama with sample collection (PROC 2)	Exposure: 44.05 mg/m ³ RCR: 0.06	Exposure: 0.822 mg/kg bw/d RCR: 0.013	RCR: 0.073	Inhalation: Extended TRA workers Dermal: Extended TRA workers
--	--	--	------------	--

Acute systemic

Contributing Scenario:	Solunum:	Dermal:	Combined routes:	Exposure Estimation Method:
Transfer from/pouring from containers (PROC 8b)	Exposure: 132.2 mg/m ³ RCR: 0.09	Uygulanamaz	RCR: 0.09	Extended TRA workers
Preparatlar ve malların formülasyonu için yığın işlemlerindeki karıştırma veya harmanlamalarda (çoklu etap ve/veya kaydadeğer temas) (PROC 4)	Exposure: 132.2 mg/m ³ RCR: 0.09	Uygulanamaz	RCR: 0.09	Extended TRA workers
Spraying/fogging by manual application Indoor with local exhaust ventilation (PROC 11)	Exposure: 616.7 mg/m ³ RCR: 0.42	Uygulanamaz	RCR: 0.42	Extended TRA workers
Spraying/fogging by manual application Outdoor (PROC 11)	Exposure: 308.4 mg/m ³ RCR: 0.21	Uygulanamaz	RCR: 0.21	Extended TRA workers
Spraying/fogging by manual application Indoor with local exhaust ventilation With potential for aerosol generation (PROC 11)	Exposure: 881.1 mg/m ³ RCR: 0.6	Uygulanamaz	RCR: 0.6	Extended TRA workers
Spraying/fogging by manual application Outdoor With potential for aerosol generation (PROC 11)	Exposure: 308.4 mg/m ³ RCR: 0.21	Uygulanamaz	RCR: 0.21	Extended TRA workers
Spraying/fogging by machine application Outdoor (PROC 11)	Exposure: 154.2 mg/m ³ RCR: 0.105	Uygulanamaz	RCR: 0.105	Extended TRA workers

Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006



Ürün ismi	Ethyl acetate			EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014	
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014	

Spraying/fogging by machine application Outdoor With potential for aerosol generation (PROC 11)	Exposure: 154.2 mg/m ³ RCR: 0.105	Uygulanamaz	RCR: 0.105	Extended TRA workers
Ad hoc manual application via trigger sprays, dipping, etc (PROC 13)	Exposure: 264.3 mg/m ³ RCR: 0.18	Uygulanamaz	RCR: 0.18	Extended TRA workers
Equipment cleaning and maintenance (PROC 8a)	Exposure: 881.1 mg/m ³ RCR: 0.6	Uygulanamaz	RCR: 0.6	Extended TRA workers
Disposal of wastes (PROC 8a)	Exposure: 205.6 mg/m ³ RCR: 0.14	Uygulanamaz	RCR: 0.14	Extended TRA workers
Depolama with sample collection (PROC 2)	Exposure: 176.2 mg/m ³ RCR: 0.12	Uygulanamaz	RCR: 0.12	Extended TRA workers

Local effects via inhalation route

Contributing scenario:	Akut:	Uzun süreli:	Exposure Estimation Method:
Transfer from/pouring from containers (PROC 8b)	Exposure: 132.2 mg/m ³ RCR: 0.09	Exposure: 33.04 mg/m ³ RCR: 0.045	Extended TRA workers
Preparatlar ve malların formülasyonu için yığın işlemlerindeki karıştırma veya harmanlamalarda (çoklu etap ve/veya kaydadeğer temas) (PROC 4)	Exposure: 132.2 mg/m ³ RCR: 0.09	Exposure: 33.04 mg/m ³ RCR: 0.045	Extended TRA workers
Spraying/fogging by manual application Indoor with local exhaust ventilation (PROC 11)	Exposure: 154.2 mg/m ³ RCR: 0.21	Exposure: 616.7 mg/m ³ RCR: 0.42	Extended TRA workers
Spraying/fogging by manual application Outdoor (PROC 11)	Exposure: 308.4 mg/m ³ RCR: 0.21	Exposure: 77.09 mg/m ³ RCR: 0.105	Extended TRA workers

**Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006**



Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

Spraying/fogging by manual application Indoor with local exhaust ventilation With potential for aerosol generation (PROC 11)	Exposure: 881.1 mg/m ³ RCR: 0.6	Exposure: 220.3 mg/m ³ RCR: 0.3	Extended TRA workers
Spraying/fogging by manual application Outdoor With potential for aerosol generation (PROC 11)	Exposure: 308.4 mg/m ³ RCR: 0.21	Exposure: 77.09 mg/m ³ RCR: 0.105	Extended TRA workers
Spraying/fogging by machine application Outdoor (PROC 11)	Exposure: 154.2 mg/m ³ RCR: 0.105	Exposure: 38.55 mg/m ³ RCR: 0.053	Extended TRA workers
Spraying/fogging by machine application Outdoor With potential for aerosol generation (PROC 11)	Exposure: 154.2 mg/m ³ RCR: 0.105	Exposure: 38.55 mg/m ³ RCR: 0.053	Extended TRA workers
Ad hoc manual application via trigger sprays, dipping, etc (PROC 13)	Exposure: 264.3 mg/m ³ RCR: 0.18	Exposure: 66.08 mg/m ³ RCR: 0.09	Extended TRA workers
Equipment cleaning and maintenance (PROC 8a)	Exposure: 881.1 mg/m ³ RCR: 0.6	Exposure: 220.3 mg/m ³ RCR: 0.3	Extended TRA workers
Disposal of wastes (PROC 8a)	Exposure: 205.6 mg/m ³ RCR: 0.14	Exposure: 51.39 mg/m ³ RCR: 0.07	Extended TRA workers
Depolama with sample collection (PROC 2)	Exposure: 176.2 mg/m ³ RCR: 0.12	Exposure: 44.05 mg/m ³ RCR: 0.06	Extended TRA workers

Local effects via dermal route

A DNEL for local effects of acute dermal exposure was not derived as an acute toxicity hazard has not been identified. For local effects of long-term dermal exposure, a DNEL was not derived as there is no information available about threshold effects and/or dose-response. Consequently, RCR values were not calculated for both exposure patterns.

**Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006**



Ürün ismi	Ethyl acetate			EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014	
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014	

4.Guidance to Downstream User to evaluate whether he works inside the boundaries set by the ES

The Use Descriptors assigned based on the ECHA guidance on use descriptors R-12 represent the current understanding of the uses of our product

(http://echa.europa.eu/documents/10162/13632/information_requirements_r12_en.pdf).

Please carefully consider whether the listed Exposure Scenarios reflect your uses of Celanese's product. Different uses can be addressed in the same exposure scenario if the same operational conditions and risk management measures apply to all these uses. In addition, various types of activities can be expressed by one category for workers' exposure and one category for environmental exposure.

ECHA's "Guidance for Downstream Users" provides details how to decide whether or not your use is covered by the exposure scenarios and what to do if this is not the case

(http://echa.europa.eu/documents/10162/13634/du_en.pdf).

**Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006**



Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

9. Exposure Scenario

1. Maruz kalma Senaryosu Başlığı

Sanayi kullanımı Use in Cleaning Agents;

Environment Industrial use of processing aids in processes and products, not becoming part of articles (ERC 4)

Worker

Bulk transfers Dedicated facility (PROC 8b)
Automated processes with (semi) closed systems Use in contained systems (PROC 2)
Automated processes with (semi) closed systems Drum/batch transfers Use in contained systems (PROC 3)
Application of cleaning products in closed systems (PROC 2)
Filling / preparation of equipment from drums or containers (PROC 8a)
Use in contained batch processes Treatment by heating (PROC 4)
Degreasing small objects in cleaning station (PROC 13)
Cleaning with low-pressure washers (PROC 10)
Cleaning with high pressure washers (PROC 7)
Manual Surfaces Cleaning No spraying (PROC 10)

2. Conditions of use affecting exposure

2.1 Çevresel maruziyetin kontrolü Industrial use of processing aids in processes and products, not becoming part of articles (ERC 4)

Product characteristics	Daily amount per site <=1.2 tonnes/day Annual amount per site <=25.0 tonnes/year
Amounts used, frequency and duration of use (or from service life)	Uygulanamaz
Technical and organizational conditions and measures	Uygulanamaz
Conditions and measures related to sewage treatment plant	Estimated substance removal from wastewater via domestic sewage treatment 88.2 % Assumed domestic sewage treatment plant flow >=2000 m ³ /d
Conditions and measures related to treatment of waste (including article waste)	Dispose of waste or used sacks/containers according to local regulations
Other conditions affecting environmental exposure	Receiving surface water flow rate >=18000 m ³ /d

Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006



Ürün ismi	Ethyl acetate	Revize Edildiği Tarih	25.Nis.2014	EU/TR
MSDS No.	80034	Yayın tarihi	25.Nis.2014	
Revizyon numarası	9.01			

Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply beyond the REACH CSA	Uygulanamaz
---	-------------

2.2 Control of worker exposure Bulk transfers Dedicated facility (PROC 8b)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Maruziyet fırsatı olan yarı kapalı bir işlem içinde kullanın Local exhaust ventilation - efficiency of at least 95.0% Gelismis (endüstriyel) maruziyet kontrolleri varsayılmıştır.
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Processing not higher than 40.0°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

2.3 Control of worker exposure Automated processes with (semi) closed systems Use in contained systems (PROC 2)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Use in closed, continuous process with occasional controlled exposure Gelismis (endüstriyel) maruziyet kontrolleri varsayılmıştır.

**Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006**



Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Processing not higher than 40.0°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

2.4 Control of worker exposure Automated processes with (semi) closed systems Drum/batch transfers Use in contained systems (PROC)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Use in closed batch process (synthesis or formulation) Gelismis (endüstriyel) maruziyet kontrolleri varsayılmıştır.
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Processing not higher than 40.0°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

2.5 Control of worker exposure Application of cleaning products in closed systems (PROC 2)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
----------------------------------	--

Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006



Ürün ismi	Ethyl acetate	Revize Edildiği Tarih	25.Nis.2014	EU/TR
MSDS No.	80034	Yayın tarihi	25.Nis.2014	
Revizyon numarası	9.01			

Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Use in closed, continuous process with occasional controlled exposure Gelismis (endüstriyel) maruziyet kontrolleri varsayılmıştır.
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Processing not higher than 40.0°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

2.6 Control of worker exposure Filling / preparation of equipment from drums or containers (PROC 8a)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Local exhaust ventilation - efficiency of at least 90.0% Gelismis (endüstriyel) maruziyet kontrolleri varsayılmıştır.
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Processing not higher than 40.0°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006



Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

Çalışanların maruziyeti kontrolü Use in contained batch processes Treatment by heating (PROC 4)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Maruziyet firsati olan yari kapali bir islem içinde kullanin Local exhaust ventilation - efficiency of at least Gelismis (endüstriyel) maruziyet kontrolleri varsayilmistir.
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Processing not higher than 40.0°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

Çalışanların maruziyeti kontrolü Degreasing small objects in cleaning station (PROC 13)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Local exhaust ventilation - efficiency of at least 90.0% Gelismis (endüstriyel) maruziyet kontrolleri varsayilmistir.
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Processing not higher than 40.0°C

**Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006**



Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz
---	-------------

2.9 Control of worker exposure Cleaning with low-pressure washers (PROC 10)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a good standard of general or controlled ventilation. (5 to 10 air changes per hour). Gelismis (endüstriyel) maruziyet kontrolleri varsayılmıştır.
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Processing not higher than 40.0°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

2.10 Control of worker exposure Cleaning with high pressure washers (PROC 7)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a good standard of general or controlled ventilation. (5 to 10 air changes per hour). Gelismis (endüstriyel) maruziyet kontrolleri varsayılmıştır.

**Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006**



Ürün ismi	Ethyl acetate	Revize Edildiği Tarih	25.Nis.2014	EU/TR
MSDS No.	80034	Yayın tarihi	25.Nis.2014	
Revizyon numarası	9.01			

Conditions and measures related to personal protection, hygiene and health evaluation	Wear a respirator providing a minimum efficiency of Daha fazla teknik özellik için bkz. SD, bölüm 8.
Other conditions affecting workers exposure	İçeride kullanımı Processing not higher than 40.0°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

2.11 Control of worker exposure Manual Surfaces Cleaning No spraying (PROC 10)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a good standard of general or controlled ventilation. (5 to 10 air changes per hour). Gelismis (endüstriyel) maruziyet kontrolleri varsayılmıştır.
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Processing not higher than 40.0°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

3.Maruz kalma tahmini ve kaynağın referansı

Environment

Release route	Release rate (kg/day)	Release estimation method
Su	0.125	Salınım faktörü ESVOC 4
Hava	375	Salınım faktörü ESVOC 4
Toprak	0	Salınım faktörü ESVOC 4

Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006



Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

Protection target	Exposure estimate (based on: EUSES)	RCR
Freshwater (pelagic)	0.001 mg/L	< 0.01
Freshwater (sediment)	0.006 mg/kg dw	< 0.01
Marine water (pelagic)	1.26E-4 mg/L	< 0.01
Marine water (sediment)	7.515E-4 mg/kg dw	< 0.01
Freshwater food chain (predators)	4.851E-4 mg/kg ww	< 0.01
Marine water food chain (predators)	7.646E-5 mg/kg ww	< 0.01
Marine water food chain (top predators)	7.417E-5 mg/kg ww	< 0.01
Sewage treatment plant	0.007 mg/L	< 0.01
Agricultural soil	0.001 mg/kg dw	< 0.01
Terrestrial food chain (predator)	6.439E-4 mg/kg bw/day	< 0.01

Risk characterisation for man via the environment

Inhalation: 0.006 mg/m³ - RCR: < 0.01

Oral: 8.27E-5 mg/kg bw/day - RCR: < 0.01

Worker exposure

Long-term, systemic

Contributing scenario:	Inhalation	Dermal:	Combined routes:	Exposure Estimation Method:
Bulk transfers Dedicated facility (PROC 8b)	Exposure: 4.589 mg/m ³ RCR: < 0.01	Exposure: 13.71 mg/kg bw/d RCR: 0.218	RCR: 0.224	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Automated processes with (semi) closed systems Use in contained systems (PROC 2)	Exposure: 18.36 mg/m ³ RCR: 0.025	Exposure: 1.37 mg/kg bw/d RCR: 0.022	RCR: 0.047	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Automated processes with (semi) closed systems Drum/batch transfers Use in contained systems (PROC 3)	Exposure: 36.71 mg/m ³ RCR: 0.05	Exposure: 0.69 mg/kg bw/d RCR: 0.011	RCR: 0.061	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Application of cleaning products in closed systems (PROC 2)	Exposure: 18.36 mg/m ³ RCR: 0.025	Exposure: 1.37 mg/kg bw/d RCR: 0.022	RCR: 0.047	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Filling / preparation of equipment from drums or containers (PROC 8a)	Exposure: 18.36 mg/m ³ RCR: 0.025	Exposure: 13.71 mg/kg bw/d RCR: 0.218	RCR: 0.243	Inhalation: Extended TRA workers Dermal: Extended TRA workers

**Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006**



Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

Use in contained batch processes Treatment by heating (PROC 4)	Exposure: 7.342 mg/m ³ RCR: 0.01	Exposure: 6.86 mg/kg bw/d RCR: 0.109	RCR: 0.119	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Degreasing small objects in cleaning station (PROC 13)	Exposure: 18.36 mg/m ³ RCR: 0.025	Exposure: 13.71 mg/kg bw/d RCR: 0.218	RCR: 0.243	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Cleaning with low-pressure washers (PROC 10)	Exposure: 55.07 mg/m ³ RCR: 0.075	Exposure: 27.43 mg/kg bw/d RCR: 0.435	RCR: 0.51	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Cleaning with high pressure washers (PROC 7)	Exposure: 27.53 mg/m ³ RCR: 0.038	Exposure: 42.86 mg/kg bw/d RCR: 0.68	RCR: 0.718	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Manual Surfaces Cleaning no spraying (PROC 10)	Exposure: 55.07 mg/m ³ RCR: 0.075	Exposure: 27.43 mg/kg bw/d RCR: 0.435	RCR: 0.51	Inhalation: Extended TRA workers Dermal: Extended TRA workers

Acute systemic

Contributing Scenario:	Solumum:	Dermal:	Combined routes:	Exposure Estimation Method:
Bulk transfers Dedicated facility (PROC 8b)	Exposure: 18.36 mg/m ³ RCR: 0.012	Uygulanamaz	RCR: 0.012	Extended TRA workers
Automated processes with (semi) closed systems Use in contained systems (PROC 2)	Exposure: 73.42 mg/m ³ RCR: 0.05	Uygulanamaz	RCR: 0.05	Extended TRA workers
Automated processes with (semi) closed systems Drum/batch transfers Use in contained systems (PROC 3)	Exposure: 146.8 mg/m ³ RCR: 0.1	Uygulanamaz	RCR: 0.1	Extended TRA workers
Application of cleaning products in closed systems (PROC 2)	Exposure: 73.42 mg/m ³ RCR: 0.05	Uygulanamaz	RCR: 0.05	Extended TRA workers

**Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006**



Ürün ismi	Ethyl acetate			EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014	
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014	

Filling / preparation of equipment from drums or containers (PROC 8a)	Exposure: 73.42 mg/m ³ RCR: 0.05	Uygulanamaz	RCR: 0.05	Extended TRA workers
Use in contained batch processes Treatment by heating (PROC 4)	Exposure: 29.37 mg/m ³ RCR: 0.02	Uygulanamaz	RCR: 0.02	Extended TRA workers
Degreasing small objects in cleaning station (PROC 13)	Exposure: 73.42 mg/m ³ RCR: 0.05	Uygulanamaz	RCR: 0.05	Extended TRA workers
Cleaning with low-pressure washers (PROC 10)	Exposure: 220.3 mg/m ³ RCR: 0.15	Uygulanamaz	RCR: 0.15	Extended TRA workers
Cleaning with high pressure washers (PROC 7)	Exposure: 110.1 mg/m ³ RCR: 0.075	Uygulanamaz	RCR: 0.075	Extended TRA workers
Manual Surfaces Cleaning no spraying (PROC 10)	Exposure: 220.3 mg/m ³ RCR: 0.15	Uygulanamaz	RCR: 0.15	Extended TRA workers

Local effects via inhalation route

Contributing scenario:	Akut:	Uzun süreli:	Exposure Estimation Method:
Bulk transfers Dedicated facility (PROC 8b)	Exposure: 18.36 mg/m ³ RCR: 0.012	Exposure: 4.589 mg/m ³ RCR: < 0.01	Extended TRA workers
Automated processes with (semi) closed systems Use in contained systems (PROC 2)	Exposure: 73.42 mg/m ³ RCR: 0.05	Exposure: 18.36 mg/m ³ RCR: 0.025	Extended TRA workers
Automated processes with (semi) closed systems Drum/batch transfers Use in contained systems (PROC 3)	Exposure: 146.8 mg/m ³ RCR: 0.1	Exposure: 36.71 mg/m ³ RCR: 0.05	Extended TRA workers
Application of cleaning products in closed systems (PROC 2)	Exposure: 73.42 mg/m ³ RCR: 0.05	Exposure: 18.36 mg/m ³ RCR: 0.025	Extended TRA workers

Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006



Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

Filling / preparation of equipment from drums or containers (PROC 8a)	Exposure: 73.42 mg/m ³ RCR: 0.05	Exposure: 18.36 mg/m ³ RCR: 0.025	Extended TRA workers
Use in contained systems Treatment by heating (PROC 4)	Exposure: 29.37 mg/m ³ RCR: 0.02	Exposure: 7.342 mg/m ³ RCR: 0.01	Extended TRA workers
Degreasing small objects in cleaning station (PROC 13)	Exposure: 73.42 mg/m ³ RCR: 0.05	Exposure: 18.36 mg/m ³ RCR: 0.025	Extended TRA workers
Cleaning with low-pressure washers (PROC 10)	Exposure: 220.3 mg/m ³ RCR: 0.15	Exposure: 55.07 mg/m ³ RCR: 0.075	Extended TRA workers
Cleaning with high pressure washers (PROC 7)	Exposure: 110.1 mg/m ³ RCR: 0.075	Exposure: 27.53 mg/m ³ RCR: 0.038	Extended TRA workers
Manual Surfaces Cleaning no spraying (PROC 10)	Exposure: 220.3 mg/m ³ RCR: 0.15	Exposure: 55.07 mg/m ³ RCR: 0.075	Extended TRA workers

Local effects via dermal route

A DNEL for dermal exposure was not derived as no respective hazard was observed. Consequently, a RCR value has not been calculated

4.Guidance to Downstream User to evaluate whether he works inside the boundaries set by the ES

The Use Descriptors assigned based on the ECHA guidance on use descriptors R-12 represent the current understanding of the uses of our product

(http://echa.europa.eu/documents/10162/13632/information_requirements_r12_en.pdf).

Please carefully consider whether the listed Exposure Scenarios reflect your uses of Celanese's product. Different uses can be addressed in the same exposure scenario if the same operational conditions and risk management measures apply to all these uses. In addition, various types of activities can be expressed by one category for workers' exposure and one category for environmental exposure.

ECHA's "Guidance for Downstream Users" provides details how to decide whether or not your use is covered by the exposure scenarios and what to do if this is not the case

(http://echa.europa.eu/documents/10162/13634/du_en.pdf).

Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

10. Exposure Scenario

1. Maruz kalma Senaryosu Başlığı

Professional application Use in Cleaning Agents;

Environment Wide dispersive indoor use of processing aids in open systems (ERC 8a)

Worker

Filling / preparation of equipment from drums or containers Dedicated facility (PROC 8b)
Automated processes with (semi) closed systems Use in contained systems (PROC 2)
Automated processes with (semi) closed systems Drum/batch transfers Use in contained systems (PROC 3)
Semi-automated process (e.g.: Semi-automatic application of floor care and maintenance products) (PROC 4)
Filling / preparation of equipment from drums or containers Outdoor (PROC 8a)
Dipping, immersion and pouring Manual Surfaces Cleaning (PROC 13)
Cleaning with low-pressure washers Rolling, Brushing No spraying (PROC 10)
Cleaning with high pressure washers Spraying Indoor (PROC 11)
Cleaning with high pressure washers Spraying Outdoor (PROC 11)
Application of cleaning products in closed systems Manual Surfaces Cleaning (PROC 10)
Ad hoc manual application via trigger sprays, dipping, etc Rolling, Brushing (PROC 10)
Application of cleaning products in closed systems Outdoor (PROC 4)
Cleaning of medical devices (PROC 4)

2. Conditions of use affecting exposure

2.1 Çevresel maruziyetin kontrolü Wide dispersive indoor use of processing aids in open systems (ERC 8a)

Product characteristics	Uygulanamaz
Amounts used, frequency and duration of use (or from service life)	Uygulanamaz
Technical and organizational conditions and measures	Uygulanamaz
Conditions and measures related to sewage treatment plant	Uygulanamaz
Conditions and measures related to treatment of waste (including article waste)	Dispose of waste or used sacks/containers according to local regulations
Other conditions affecting environmental exposure	Uygulanamaz

Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006



Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply beyond the REACH CSA	Uygulanamaz
---	-------------

2.2 Control of worker exposure Filling preparation of equipment from drums or containers - dedicated facility (PROC 8b)

Product (article) characteristic	Limit the concentration of the substance in the used product to 25%.
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a good standard of general or controlled ventilation. (5 to 10 air changes per hour). Maruziyet fırsatı olan yarı kapalı bir işlem içinde kullanın Temel (profesyonel) maruziyet varsayılır
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Processing not higher than 40.0°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

2.3 Control of worker exposure Automated processes with (semi) closed systems Use in contained systems (PROC 2)

Product (article) characteristic	Limit the concentration of the substance in the used product to 25%.
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Use in closed, continuous process with occasional controlled exposure Temel (profesyonel) maruziyet varsayılır

**Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006**



Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Processing not higher than 40.0°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

2.4 Control of worker exposure Automated processes with (semi) closed systems Drum/batch transfers Use in contained systems (PROC 3)

Product (article) characteristic	Limit the concentration of the substance in the used product to 25%.
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Use in closed batch process (synthesis or formulation) Temel (profesyonel) maruziyet varsayılır
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Processing not higher than 40.0°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

2.5 Control of worker exposure Semi-automated process (e.g.: Semi-automatic application of floor care and maintenance products) (PROC 4)

Product (article) characteristic	Limit the concentration of the substance in the used product to 25%.
----------------------------------	--

Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006



Ürün ismi	Ethyl acetate	Revize Edildiği Tarih	25.Nis.2014	EU/TR
MSDS No.	80034	Yayın tarihi	25.Nis.2014	
Revizyon numarası	9.01			

Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a good standard of general or controlled ventilation. (5 to 10 air changes per hour). Maruziyet fırsatı olan yarı kapalı bir işlem içinde kullanın Temel (profesyonel) maruziyet varsayılır
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Processing not higher than 40.0°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

2.6 Control of worker exposure Filling / preparation of equipment from drums or containers Outdoor (PROC 8a)

Product (article) characteristic	Limit the concentration of the substance in the used product to 25%.
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Temel (profesyonel) maruziyet varsayılır
Conditions and measures related to personal protection, hygiene and health evaluation	Wear a respirator providing a minimum efficiency of 90% Daha fazla teknik özellik için bkz. SD, bölüm 8.
Other conditions affecting workers exposure	Ensure operation is undertaken outdoors Processing not higher than 40.0°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006



Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

Çalışanların maruziyeti kontrolü Dipping, immersion and pouring Manual Surfaces Cleaning (PROC 13)

Product (article) characteristic	Limit the concentration of the substance in the used product to 25%.
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a good standard of general or controlled ventilation. (5 to 10 air changes per hour). Temel (profesyonel) maruziyet varsayılır
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Processing not higher than 40.0°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

Çalışanların maruziyeti kontrolü Cleaning with low-pressure washers Rolling, Brushing No spraying (PROC 10)

Product (article) characteristic	Limit the concentration of the substance in the used product to 25%.
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a good standard of general or controlled ventilation. (5 to 10 air changes per hour). Temel (profesyonel) maruziyet varsayılır
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Processing not higher than 40.0°C

Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006



Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz
---	-------------

2.9 Control of worker exposure Cleaning with high pressure washers Spraying Indoor (PROC 11)

Product (article) characteristic	Limit the concentration of the substance in the used product to 5 %.
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a good standard of general or controlled ventilation. (5 to 10 air changes per hour). Temel (profesyonel) maruziyet varsayılır
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Processing not higher than 40.0°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

2.10 Control of worker exposure Cleaning with high pressure washers Spraying Outdoor (PROC 11)

Product (article) characteristic	Limit the concentration of the substance in the used product to 1 %.
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Temel (profesyonel) maruziyet varsayılır

Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006



Ürün ismi	Ethyl acetate	Revize Edildiği Tarih	25.Nis.2014	EU/TR
MSDS No.	80034	Yayın tarihi	25.Nis.2014	
Revizyon numarası	9.01			

Conditions and measures related to personal protection, hygiene and health evaluation	Spesifik aktivite eğitimlerini verin ve kimyasal dirençli eldiven kullanın (EN374'e göre test edilmiş)
Other conditions affecting workers exposure	Ensure operation is undertaken outdoors Processing not higher than 40.0°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

2.11 Control of worker exposure Application of cleaning products in closed systems Manual Surfaces Cleaning (PROC)

Product (article) characteristic	Limit the concentration of the substance in the used product to 5 %.
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a good standard of general or controlled ventilation. (3 to 5 air changes per hour). Temel (profesyonel) maruziyet varsayılır
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Processing not higher than 40.0°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

2.12 Control of worker exposure Ad hoc manual application via trigger sprays, dipping, etc Rolling, Brushing (PROC 10)

Product (article) characteristic	Limit the concentration of the substance in the used product to 25%.
---	--

**Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006**



Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Local exhaust ventilation - efficiency of at least 80.0% Temel (profesyonel) maruziyet varsayılır
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Processing not higher than 40.0°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

2.13 Control of worker exposure Application of cleaning products in closed systems Outdoor (PROC 4)

Product (article) characteristic	Limit the concentration of the substance in the used product to 25%.
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Maruziyet fırsatı olan yarı kapalı bir işlem içinde kullanın Temel (profesyonel) maruziyet varsayılır
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	Ensure operation is undertaken outdoors Processing not higher than 40.0°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006



Ürün ismi	Ethyl acetate	Revize Edildiği Tarih	25.Nis.2014	EU/TR
MSDS No.	80034	Yayın tarihi	25.Nis.2014	
Revizyon numarası	9.01			

2.14 Control of worker exposure Cleaning of medical devices (PROC 4)

Product (article) characteristic	Limit the concentration of the substance in the used product to 25%.
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Maruziyet fırsatı olan yarı kapalı bir işlem içinde kullanın Local exhaust ventilation - efficiency of at least 80.0% Temel (profesyonel) maruziyet varsayılır
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Processing not higher than 40.0°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

3.Maruz kalma tahmini ve kaynağın referansı

Environment

Environment

Release route	Release rate (kg/day)	Release estimation method
Su	0.014	ERC based
Hava	0.014	ERC based
Toprak	0	ERC based

Protection target	Exposure estimate (based on: EUSES)	RCR
Freshwater (pelagic)	4.041E-4 mg/L	< 0.01
Freshwater (sediment)	0.002 mg/kg dw	< 0.01
Marine water (pelagic)	6.02E-5 mg/L	< 0.01
Marine water (sediment)	3.59E-4 mg/kg dw	< 0.01
Freshwater food chain (predators)	5.137E-4 mg/kg ww	< 0.01
Marine water food chain (predators)	7.932E-5 mg/kg ww	< 0.01
Marine water food chain (top predators)	7.474E-5 mg/kg ww	< 0.01
Sewage treatment plant	8.101E-4 mg/L	< 0.01
Agricultural soil	1.295E-4 mg/kg dw	< 0.01
Terrestrial food chain (predator)	1.131E-4 mg/kg ww	< 0.01

**Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006**



Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

Risk characterisation for man via the environment

Inhalation: 4.8E-4 mg/m³ - RCR: < 0.01

Oral: 1.605E-5 mg/kg bw/day - RCR: < 0.01

Worker exposure

Long-term, systemic

Contributing scenario:	Inhalation	Dermal:	Combined routes:	Exposure Estimation Method:
Filling preparation of equipment from drums or containers - dedicated facility (PROC 8b)	Exposure: 33.04 mg/m ³ RCR: 0.045	Exposure: 8.226 mg/kg bw/d RCR: 0.131	RCR: 0.176	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Automated processes with (semi) closed systems Use in contained systems (PROC 2)	Exposure: 44.05 mg/m ³ RCR: 0.06	Exposure: 0.822 mg/kg bw/d RCR: 0.013	RCR: 0.073	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Automated processes with (semi) closed systems Drum/batch transfers Use in contained systems (PROC 3)	Exposure: 55.07 mg/m ³ RCR: 0.075	Exposure: 0.414 mg/kg bw/d RCR: < 0.01	RCR: 0.082	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Semi-automated process (e.g.: Semi-automatic application of floor care and maintenance products) (PROC 4)	Exposure: 33.04 mg/m ³ RCR: 0.045	Exposure: 4.116 mg/kg bw/d RCR: 0.065	RCR: 0.11	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Filling / preparation of equipment from drums or containers Outdoor (PROC 8a)	Exposure: 15.42 mg/m ³ RCR: 0.021	Exposure: 8.226 mg/kg bw/d RCR: 0.131	RCR: 0.152	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Dipping, immersion and pouring Manual Surfaces Cleaning (PROC 13)	Exposure: 66.08 mg/m ³ RCR: 0.09	Exposure: 8.226 mg/kg bw/d RCR: 0.131	RCR: 0.221	Inhalation: Extended TRA workers Dermal: Extended TRA workers

**Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006**



Ürün ismi	Ethyl acetate			EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014	
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014	

Cleaning with low-pressure washers Rolling, Brushing no spraying (PROC 10)	Exposure: 66.08 mg/m ³ RCR: 0.09	Exposure: 16.46 mg/kg bw/d RCR: 0.261	RCR: 0.351	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Cleaning with high pressure washers Spraying Indoor (PROC 11)	Exposure: 110.1 mg/m ³ RCR: 0.15	Exposure: 21.43 mg/kg bw/d RCR: 0.34	RCR: 0.49	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Cleaning with high pressure washers Spraying Outdoor (PROC 11)	Exposure: 128.5 mg/m ³ RCR: 0.175	Exposure: 2.143 mg/kg bw/d RCR: 0.034	RCR: 0.209	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Application of cleaning products in closed systems Manual Surfaces Cleaning (PROC 10)	Exposure: 51.39 mg/m ³ RCR: 0.07	Exposure: 5.486 mg/kg bw/d RCR: 0.087	RCR: 0.157	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Ad hoc manual application via trigger sprays, dipping, etc Rolling, Brushing (PROC 10)	Exposure: 44.05 mg/m ³ RCR: 0.06	Exposure: 16.46 mg/kg bw/d RCR: 0.261	RCR: 0.321	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Application of cleaning products in closed systems Outdoor (PROC 4)	Exposure: 77.09 mg/m ³ RCR: 0.105	Exposure: 4.116 mg/kg bw/d RCR: 0.065	RCR: 0.17	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Cleaning of medical devices (PROC 4)	Exposure: 22.03 mg/m ³ RCR: 0.03	Exposure: 4.116 mg/kg bw/d RCR: 0.065	RCR: 0.095	Inhalation: Extended TRA workers Dermal: Extended TRA workers

Acute systemic

Contributing Scenario:	Solunum:	Dermal:	Combined routes:	Exposure Estimation Method:
Filling preparation of equipment from drums or containers - dedicated facility (PROC 8b)	Exposure: 132.2 mg/m ³ RCR: 0.09	Uygulanamaz	RCR: 0.09	Extended TRA workers

Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006



Ürün ismi	Ethyl acetate			EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014	
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014	

Automated processes with (semi) closed systems Use in contained systems (PROC 2)	Exposure: 176.2 mg/m ³ RCR: 0.12	Uygulanamaz	RCR: 0.12	Extended TRA workers
Automated processes with (semi) closed systems Drum/batch transfers Use in contained systems (PROC 3)	Exposure: 220.3 mg/m ³ RCR: 0.15	Uygulanamaz	RCR: 0.15	Extended TRA workers
Semi-automated process (e.g.: Semi-automatic application of floor care and maintenance products) (PROC 4)	Exposure: 132.2 mg/m ³ RCR: 0.09	Uygulanamaz	RCR: 0.09	Extended TRA workers
Filling / preparation of equipment from drums or containers Outdoor (PROC 8a)	Exposure: 61.67 mg/m ³ RCR: 0.042	Uygulanamaz	RCR: 0.042	Extended TRA workers
Dipping, immersion and pouring Manual Surfaces Cleaning (PROC 13)	Exposure: 264.3 mg/m ³ RCR: 0.18	Uygulanamaz	RCR: 0.18	Extended TRA workers
Cleaning with low-pressure washers Rolling, Brushing no spraying (PROC 10)	Exposure: 264.3 mg/m ³ RCR: 0.18	Uygulanamaz	RCR: 0.18	Extended TRA workers
Cleaning with high pressure washers Spraying Indoor (PROC 11)	Exposure: 440.5 mg/m ³ RCR: 0.3	Uygulanamaz	RCR: 0.3	Extended TRA workers
Cleaning with high pressure washers Spraying Outdoor (PROC 11)	Exposure: 513.9 mg/m ³ RCR: 0.35	Uygulanamaz	RCR: 0.35	Extended TRA workers

**Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006**



Ürün ismi	Ethyl acetate			EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014	
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014	

Application of cleaning products in closed systems Manual Surfaces Cleaning (PROC 10)	Exposure: 205.6 mg/m ³ RCR: 0.14	Uygulanamaz	RCR: 0.14	Extended TRA workers
Ad hoc manual application via trigger sprays, dipping, etc Rolling, Brushing (PROC 10)	Exposure: 176.2 mg/m ³ RCR: 0.12	Uygulanamaz	RCR: 0.12	Extended TRA workers
Application of cleaning products in closed systems Outdoor (PROC 4)	Exposure: 308.4 mg/m ³ RCR: 0.21	Uygulanamaz	RCR: 0.21	Extended TRA workers
Cleaning of medical devices (PROC 4)	Exposure: 88.11 mg/m ³ RCR: 0.06	Uygulanamaz	RCR: 0.06	Extended TRA workers

Local effects via inhalation route

Contributing scenario:	Akut:	Uzun süreli:	Exposure Estimation Method:
Filling / preparation of equipment from drums or containers Dedicated facility (PROC 8b)	Exposure: 132.2 mg/m ³ RCR: 0.09	Exposure: 33.04 mg/m ³ RCR: 0.045	Extended TRA workers
Automated processes with (semi) closed systems Use in contained systems (PROC 2)	Exposure: 176.2 mg/m ³ RCR: 0.12	Exposure: 44.05 mg/m ³ RCR: 0.06	Extended TRA workers
Automated processes with (semi) closed systems Drum/batch transfers Use in contained systems (PROC 3)	Exposure: 220.3 mg/m ³ RCR: 0.15	Exposure: 55.07 mg/m ³ RCR: 0.075	Extended TRA workers
Semi-automated process (e.g.: Semi-automatic application of floor care and maintenance products) (PROC 4)	Exposure: 132.2 mg/m ³ RCR: 0.09	Exposure: 33.04 mg/m ³ RCR: 0.045	Extended TRA workers

Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006



Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

Filling / preparation of equipment from drums or containers Outdoor (PROC 8a)	Exposure: 61.67 mg/m ³ RCR: 0.042	Exposure: 15.42 mg/m ³ RCR: 0.021	Extended TRA workers
Dipping, immersion and pouring Manual Surfaces Cleaning (PROC 13)	Exposure: 264.3 mg/m ³ RCR: 0.18	Exposure: 66.08 mg/m ³ RCR: 0.09	Extended TRA workers
Cleaning with low-pressure washers Rolling, Brushing no spraying (PROC 10)	Exposure: 264.3 mg/m ³ RCR: 0.18	Exposure: 66.08 mg/m ³ RCR: 0.09	Extended TRA workers
Cleaning with high pressure washers Spraying Indoor (PROC 11)	Exposure: 440.5 mg/m ³ RCR: 0.3	Exposure: 110.1 mg/m ³ RCR: 0.15	Extended TRA workers
Cleaning with high pressure washers Spraying Outdoor (PROC 11)	Exposure: 513.9 mg/m ³ RCR: 0.35	Exposure: 128.5 mg/m ³ RCR: 0.175	Extended TRA workers
Application of cleaning products in closed systems Manual Surfaces Cleaning (PROC 10)	Exposure: 205.6 mg/m ³ RCR: 0.14	Exposure: 51.39 mg/m ³ RCR: 0.07	Extended TRA workers
Ad hoc manual application via trigger sprays, dipping, etc Rolling, Brushing (PROC 10)	Exposure: 176.2 mg/m ³ RCR: 0.12	Exposure: 44.05 mg/m ³ RCR: 0.06	Extended TRA workers
Application of cleaning products in closed systems Outdoor (PROC 4)	Exposure: 308.4 mg/m ³ RCR: 0.21	Exposure: 77.09 mg/m ³ RCR: 0.105	Extended TRA workers
Cleaning of medical devices (PROC 4)	Exposure: 88.11 mg/m ³ RCR: 0.06	Exposure: 22.03 mg/m ³ RCR: 0.03	Extended TRA workers

Ürün ismi	Ethyl acetate			EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014	
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014	

Local effects via dermal route

A DNEL for local effects of acute dermal exposure was not derived as an acute toxicity hazard has not been identified. For local effects of long-term dermal exposure, a DNEL was not derived as there is no information available about threshold effects and/or dose-response. Consequently, RCR values were not calculated for both exposure patterns.

4.Guidance to Downstream User to evaluate whether he works inside the boundaries set by the ES

The Use Descriptors assigned based on the ECHA guidance on use descriptors R-12 represent the current understanding of the uses of our product

(http://echa.europa.eu/documents/10162/13632/information_requirements_r12_en.pdf).

Please carefully consider whether the listed Exposure Scenarios reflect your uses of Celanese's product. Different uses can be addressed in the same exposure scenario if the same operational conditions and risk management measures apply to all these uses. In addition, various types of activities can be expressed by one category for workers' exposure and one category for environmental exposure.

ECHA's "Guidance for Downstream Users" provides details how to decide whether or not your use is covered by the exposure scenarios and what to do if this is not the case

(http://echa.europa.eu/documents/10162/13634/du_en.pdf).

Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

11. Exposure Scenario

1. Maruz kalma Senaryosu Başlığı

Sanayi kullanımı Use in lubricants;

Çevre

Industrial use of processing aids in processes and products, not becoming part of articles (ERC 4)

Worker

General exposures (closed systems) (PROC 1)
General exposures (closed systems) Batch process with sample collection (PROC 3)
General exposures (open systems) (PROC 4)
Bulk transfers (PROC 8b)
Filling / preparation of equipment from drums or containers Dedicated facility (PROC 8b)
Filling / preparation of equipment from drums or containers - non-dedicated (PROC 8a)
Initial factory fill of equipment (PROC 9)
Operation and lubrication of high energy open equipment Lubricants (PROC 17)
Operation and lubrication of high energy open equipment Greases (PROC 18)
Rolling, Brushing Manual (PROC 10)
Treatment by dipping and pouring (PROC 13)
Spraying (PROC 7)
Maintenance (of larger plant items) and machine set up with local exhaust ventilation (PROC 8b)
Maintenance (of larger plant items) and machine set up without local exhaust ventilation (PROC 8b)
Maintenance of small items (PROC 8a)
Remanufacture of reject articles (PROC 9)
Depolama (PROC 2)

2. Conditions of use affecting exposure

2.1 Çevresel maruziyetin kontrolü Industrial use of processing aids in processes and products, not becoming part of articles (ERC 4)

Product characteristics	Uygulanamaz
Amounts used, frequency and duration of use (or from service life)	Daily amount per site <=1.2 tonnes/day Annual amount per site <=25.0 tonnes/year
Technical and organizational conditions and measures	Uygulanamaz
Conditions and measures related to sewage treatment plant	Estimated substance removal from wastewater via domestic sewage treatment 88.2 % Assumed domestic sewage treatment plant flow >=2000 m ³ /d
Conditions and measures related to treatment of waste (including article waste)	Dispose of waste or used sacks/containers according to local regulations

**Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006**



Ürün ismi	Ethyl acetate	Revize Edildiği Tarih	25.Nis.2014	EU/TR
MSDS No.	80034	Yayın tarihi	25.Nis.2014	
Revizyon numarası	9.01			

Other conditions affecting environmental exposure	Receiving surface water flow rate $\geq 18000 \text{ m}^3/\text{d}$
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply beyond the REACH CSA	Uygulanamaz

2.2 Control of worker exposure General exposures (closed systems) (PROC 1)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Gelismis (endüstriyel) maruziyet kontrolleri varsayılmıştır.
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Processing not higher than 40°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

2.3 Control of worker exposure General exposures (closed systems) Batch process with sample collection (PROC 3)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)

**Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006**



Ürün ismi	Ethyl acetate	Revize Edildiği Tarih	25.Nis.2014	EU/TR
MSDS No.	80034	Yayın tarihi	25.Nis.2014	
Revizyon numarası	9.01			

Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Use in closed batch process (synthesis or formulation) Gelismis (endüstriyel) maruziyet kontrolleri varsayılmıştır.
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Processing not higher than 40°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

2.4 Control of worker exposure General exposures (open systems) (PROC 4)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Maruziyet firsati olan yari kapali bir islem içinde kullanin Local exhaust ventilation - efficiency of at least Gelismis (endüstriyel) maruziyet kontrolleri varsayılmıştır.
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Processing not higher than 40°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

2.5 Control of worker exposure Bulk transfers (PROC 8b)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
---	--

Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006



Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Maruziyet fırsatı olan yarı kapalı bir işlem içinde kullanın Gelismis (endüstriyel) maruziyet kontrolleri varsayılmıştır.
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Processing not higher than 40°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

2.6 Control of worker exposure Filling preparation of equipment from drums or containers - dedicated facility (PROC 8b)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Maruziyet fırsatı olan yarı kapalı bir işlem içinde kullanın Gelismis (endüstriyel) maruziyet kontrolleri varsayılmıştır.
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Processing not higher than 40°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006



Ürün ismi	Ethyl acetate	Revize Edildiği Tarih	25.Nis.2014	EU/TR
MSDS No.	80034	Yayın tarihi	25.Nis.2014	
Revizyon numarası	9.01			

Çalışanların maruziyeti kontrolü Filling preparation of equipment from drums or containers - non dedicated facility (PROC 8a)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Gelismis (endüstriyel) maruziyet kontrolleri varsayılmıştır.
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Processing not higher than 40°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

Çalışanların maruziyeti kontrolü Initial factory fill of equipment (PROC 9)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a good standard of general or controlled ventilation. (5 to 10 air changes per hour). Maruziyet fırsatı olan yarı kapalı bir işlem içinde kullanın Gelismis (endüstriyel) maruziyet kontrolleri varsayılmıştır.
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Processing not higher than 40°C

**Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006**



Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz
--	-------------

2.9 Control of worker exposure Operation and lubrication of high energy open equipment Lubricants (PROC 17)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Local exhaust ventilation - efficiency of at least 90% Gelismis (endüstriyel) maruziyet kontrolleri varsayılmıştır.
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Processing not higher than 40°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

2.10 Control of worker exposure Operation and lubrication of high energy open equipment Greases (PROC 18)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Local exhaust ventilation - efficiency of at least 90% Gelismis (endüstriyel) maruziyet kontrolleri varsayılmıştır.

**Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006**



Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Processing not higher than 40°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

2.11 Control of worker exposure Manual roller application or brushing (PROC 10)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a good standard of general or controlled ventilation. (5 to 10 air changes per hour). Gelismis (endüstriyel) maruziyet kontrolleri varsayılmıştır.
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Processing not higher than 40°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

2.12 Control of worker exposure Treatment by dipping and pouring (PROC 13)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
----------------------------------	--

Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006



Ürün ismi	Ethyl acetate	Revize Edildiği Tarih	25.Nis.2014	EU/TR
MSDS No.	80034	Yayın tarihi	25.Nis.2014	
Revizyon numarası	9.01			

Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a good standard of general or controlled ventilation. (3 to 5 air changes per hour). Gelismis (endüstriyel) maruziyet kontrolleri varsayılmıştır.
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Processing not higher than 40°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

2.13 Control of worker exposure Spraying (PROC 7)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Gelismis (endüstriyel) maruziyet kontrolleri varsayılmıştır.
Conditions and measures related to personal protection, hygiene and health evaluation	Spesifik aktivite eğitimlerini verin ve kimyasal dirençli eldiven kullanın (EN374'e göre test edilmiş) Wear a respirator providing a minimum efficiency of 90% Daha fazla teknik özellik için bkz. SD, bölüm 8.
Other conditions affecting workers exposure	İçeride kullanımı Processing not higher than 40°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006



Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

2.14 Control of worker exposure Maintenance (of larger plant items) and machine set up with local exhaust ventilation (PROC 8b)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Maruziyet fırsatı olan yarı kapalı bir işlem içinde kullanın Local exhaust ventilation - efficiency of at least 95% Gelismis (endüstriyel) maruziyet kontrolleri varsayılmıştır.
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Processing not higher than 40°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

2.15 Control of worker exposure Maintenance (of larger plant items) and machine set up without local exhaust ventilation (PROC 8b)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Maruziyet fırsatı olan yarı kapalı bir işlem içinde kullanın Gelismis (endüstriyel) maruziyet kontrolleri varsayılmıştır.
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Processing not higher than 40°C

**Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006**



Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz
--	-------------

2.16 Control of workers exposure for Maintenance of small items (PROC 8a)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Gelismis (endüstriyel) maruziyet kontrolleri varsayılmıştır.
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Processing not higher than 40°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

2.17 Control of worker exposure Remanufacture of reject articles (PROC 9)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Avoid carrying out activities involving exposure for more than 8 hours
Technical and organizational conditions and measures	Provide a good standard of general or controlled ventilation. (5 to 10 air changes per hour). Maruziyet fırsatı olan yarı kapalı bir işlem içinde kullanın Gelismis (endüstriyel) maruziyet kontrolleri varsayılmıştır.

**Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006**



Ürün ismi	Ethyl acetate	Revize Edildiği Tarih	25.Nis.2014	EU/TR
MSDS No.	80034	Yayın tarihi	25.Nis.2014	
Revizyon numarası	9.01			

Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Processing not higher than 40°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

2.18 Control of worker exposure Depolama (PROC 25)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Avoid carrying out activities involving exposure for more than 8 hours
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Use in closed, continuous process with occasional controlled exposure Gelismis (endüstriyel) maruziyet kontrolleri varsayılmıştır.
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Processing not higher than 40°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

3.Maruz kalma tahmini ve kaynağın referansı

Environment

Release route	Release rate (kg/day)	Release estimation method
Su	1.25	Salınım faktörü ESVOC 4
Hava	3.75	Salınım faktörü ESVOC 4
Toprak	1.25	Salınım faktörü ESVOC 4

**Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006**



Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

Protection target	Exposure estimate (based on: EUSES)	RCR
Freshwater (pelagic)	0.008 mg/L	0.03
Freshwater (sediment)	0.046 mg/kg dw	0.037
Marine water (pelagic)	7.912E-4 mg/L	0.03
Marine water (sediment)	0.005 mg/kg dw	0.038
Freshwater food chain (predators)	7.425E-4 mg/kg ww	< 0.01
Marine water food chain (predators)	1.022E-4 mg/kg ww	< 0.01
Marine water food chain (top predators)	7.932E-5 mg/kg ww	< 0.01
Sewage treatment plant	0.074 mg/L	< 0.01
Agricultural soil	0.003 mg/kg dw	0.015
Terrestrial food chain (predator)	6.802E-4 mg/kg ww	< 0.01

Risk characterisation for man via the environment

Inhalation: 5.371E-4 mg/m³ - RCR: < 0.01

Oral: 5.518E-5 mg/kg bw/day - RCR: < 0.01

Worker exposure

Long-term, systemic

Contributing scenario:	Inhalation	Dermal:	Combined routes:	Exposure Estimation Method:
General exposures (closed systems) (PROC 1)	Exposure: 0.037 mg/m ³ RCR: < 0.01	Exposure: 0.034 mg/kg bw/d RCR: < 0.01	RCR: < 0.01	Inhalation: Extended TRA workers Dermal: Extended TRA workers
General exposures (closed systems) Batch process with sample collection (PROC 3)	Exposure: 36.71 mg/m ³ RCR: 0.05	Exposure: 0.69 mg/kg bw/d RCR: 0.011	RCR: 0.061	Inhalation: Extended TRA workers Dermal: Extended TRA workers
General exposures (open systems) (PROC 4)	Exposure: 7.342 mg/m ³ RCR: 0.01	Exposure: 6.86 mg/kg bw/d RCR: 0.109	RCR: 0.119	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Bulk transfers (PROC 8b)	Exposure: 91.78 mg/m ³ RCR: 0.125	Exposure: 13.71 mg/kg bw/d RCR: 0.218	RCR: 0.343	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Filling / preparation of equipment from drums or containers Dedicated facility (PROC 8b)	Exposure: 91.78 mg/m ³ RCR: 0.125	Exposure: 13.71 mg/kg bw/d RCR: 0.218	RCR: 0.343	Inhalation: Extended TRA workers Dermal: Extended TRA workers

**Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006**



Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

Filling / preparation of equipment from drums or containers Non-dedicated facility (PROC 8a)	Exposure: 183.6 mg/m ³ RCR: 0.25	Exposure: 13.71 mg/kg bw/d RCR: 0.218	RCR: 0.468	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Initial factory fill of equipment (PROC 9)	Exposure: 55.07 mg/m ³ RCR: 0.075	Exposure: 6.86 mg/kg bw/d RCR: 0.109	RCR: 0.184	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Operation and lubrication of high energy open equipment Lubricants (PROC 17)	Exposure: 18.36 mg/m ³ RCR: 0.025	Exposure: 27.43 mg/kg bw/d RCR: 0.435	RCR: 0.46	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Operation and lubrication of high energy open equipment Treatment by dipping and pouring (PROC 18)	Exposure: 18.36 mg/m ³ RCR: 0.025	Exposure: 13.71 mg/kg bw/d RCR: 0.218	RCR: 0.243	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Rolling, Brushing Manual (PROC 10)	Exposure: 55.07 mg/m ³ RCR: 0.075	Exposure: 27.43 mg/kg bw/d RCR: 0.435	RCR: 0.51	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Treatment by dipping and pouring (PROC 13)	Exposure: 128.5 mg/m ³ RCR: 0.175	Exposure: 13.71 mg/kg bw/d RCR: 0.218	RCR: 0.393	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Spraying (PROC 7)	Exposure: 91.78 mg/m ³ RCR: 0.125	Exposure: 8.572 mg/kg bw/d RCR: 0.136	RCR: 0.261	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Maintenance (of larger plant items) and machine set up with local exhaust ventilation (PROC 8b)	Exposure: 4.589 mg/m ³ RCR: < 0.01	Exposure: 13.71 mg/kg bw/d RCR: 0.218	RCR: 0.224	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Maintenance (of larger plant items) and machine set up without local exhaust ventilation (PROC 8b)	Exposure: 91.78 mg/m ³ RCR: 0.125	Exposure: 13.71 mg/kg bw/d RCR: 0.218	RCR: 0.343	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Maintenance of small items (PROC 8a)	Exposure: 183.6 mg/m ³ RCR: 0.25	Exposure: 13.71 mg/kg bw/d RCR: 0.218	RCR: 0.468	Inhalation: Extended TRA workers Dermal: Extended TRA workers

**Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006**



Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

Remanufacture of reject articles (PROC 9)	Exposure: 55.07 mg/m ³ RCR: 0.075	Exposure: 6.86 mg/kg bw/d RCR: 0.109	RCR: 0.184	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Depolama (PROC 2)	Exposure: 18.36 mg/m ³ RCR: 0.025	Exposure: 1.37 mg/kg bw/d RCR: 0.022	RCR: 0.047	Inhalation: Extended TRA workers Dermal: Extended TRA workers

Acute systemic

Contributing Scenario:	Solunum:	Dermal:	Combined routes:	Exposure Estimation Method:
General exposures (closed systems) (PROC 1)	Exposure: 0.147 mg/m ³ RCR: < 0.01	Uygulanamaz	RCR: < 0.01	Extended TRA workers
General exposures (closed systems) Batch process with sample collection (PROC 3)	Exposure: 146.8 mg/m ³ RCR: 0.1	Uygulanamaz	RCR: 0.1	Extended TRA workers
General exposures (open systems) (PROC 4)	Exposure: 29.37 mg/m ³ RCR: 0.02	Uygulanamaz	RCR: 0.02	Extended TRA workers
Bulk transfers (PROC 8b)	Exposure: 367.1 mg/m ³ RCR: 0.25	Uygulanamaz	RCR: 0.25	Extended TRA workers
Filling / preparation of equipment from drums or containers Dedicated facility (PROC 8b)	Exposure: 367.1 mg/m ³ RCR: 0.25	Uygulanamaz	RCR: 0.25	Extended TRA workers
Filling / preparation of equipment from drums or containers Non-dedicated facility (PROC 8a)	Exposure: 734.2 mg/m ³ RCR: 0.5	Uygulanamaz	RCR: 0.5	Extended TRA workers
Initial factory fill of equipment (PROC 9)	Exposure: 220.3 mg/m ³ RCR: 0.15	Uygulanamaz	RCR: 0.15	Extended TRA workers
Operation and lubrication of high energy open equipment Lubricants (PROC 17)	Exposure: 73.42 mg/m ³ RCR: 0.05	Uygulanamaz	RCR: 0.05	Extended TRA workers

**Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006**



Ürün ismi	Ethyl acetate			EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014	
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014	

Operation and lubrication of high energy open equipment Greases (PROC 18)	Exposure: 73.42 mg/m ³ RCR: 0.05	Uygulanamaz	RCR: 0.05	Extended TRA workers
Rolling, Brushing Manual (PROC 10)	Exposure: 220.3 mg/m ³ RCR: 0.15	Uygulanamaz	RCR: 0.15	Extended TRA workers
Treatment by dipping and pouring (PROC 13)	Exposure: 513.9 mg/m ³ RCR: 0.35	Uygulanamaz	RCR: 0.35	Extended TRA workers
Spraying (PROC 7)	Exposure: 367.1 mg/m ³ RCR: 0.25	Uygulanamaz	RCR: 0.25	Extended TRA workers
Maintenance (of larger plant items) and machine set up with local exhaust ventilation (PROC 8b)	Exposure: 18.36 mg/m ³ RCR: 0.012	Uygulanamaz	RCR: 0.012	Extended TRA workers
Maintenance (of larger plant items) and machine set up without local exhaust ventilation (PROC 8b)	Exposure: 367.1 mg/m ³ RCR: 0.25	Uygulanamaz	RCR: 0.25	Extended TRA workers
Remanufacture of reject articles (PROC 9)	Exposure: 220.3 mg/m ³ RCR: 0.15	Uygulanamaz	RCR: 0.15	Extended TRA workers
Depolama (PROC 2)	Exposure: 73.42 mg/m ³ RCR: 0.05	Uygulanamaz	RCR: 0.05	Extended TRA workers
Maintenance of small items (PROC 8a)	Exposure: 734.2 mg/m ³ RCR: 0.5	Uygulanamaz	RCR: 0.5	Extended TRA workers

Local effects via inhalation route

Contributing scenario:	Akut:	Uzun süreli:	Exposure Estimation Method:
General exposures (closed systems) (PROC 1)	Exposure: 0.147 mg/m ³ RCR: < 0.01	Exposure: 0.037 mg/m ³ RCR: < 0.01	Extended TRA workers

Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006



Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

General exposures (closed systems) Batch process with sample collection (PROC 3)	Exposure: 146.8 mg/m ³ RCR: 0.1	Exposure: 36.71 mg/m ³ RCR: 0.05	Extended TRA workers
General exposures (open systems) (PROC 4)	Exposure: 29.37 mg/m ³ RCR: 0.02	Exposure: 7.342 mg/m ³ RCR: 0.01	Extended TRA workers
Bulk transfers (PROC 8b)	Exposure: 367.1 mg/m ³ RCR: 0.25	Exposure: 91.78 mg/m ³ RCR: 0.125	Extended TRA workers
Filling / preparation of equipment from drums or containers Dedicated facility (PROC 8b)	Exposure: 367.1 mg/m ³ RCR: 0.25	Exposure: 91.78 mg/m ³ RCR: 0.125	Extended TRA workers
Filling / preparation of equipment from drums or containers Non-dedicated facility (PROC 8a)	Exposure: 734.2 mg/m ³ RCR: 0.5	Exposure: 183.6 mg/m ³ RCR: 0.25	Extended TRA workers
Initial factory fill of equipment (PROC 9)	Exposure: 220.3 mg/m ³ RCR: 0.15	Exposure: 55.07 mg/m ³ RCR: 0.075	Extended TRA workers
Operation and lubrication of high energy open equipment Lubricants (PROC 17)	Exposure: 73.42 mg/m ³ RCR: 0.05	Exposure: 18.36 mg/m ³ RCR: 0.025	Extended TRA workers
Operation and lubrication of high energy open equipment Greases (PROC 18)	Exposure: 73.42 mg/m ³ RCR: 0.05	Exposure: 18.36 mg/m ³ RCR: 0.025	Extended TRA workers
Rolling, Brushing Manual (PROC 10)	Exposure: 220.3 mg/m ³ RCR: 0.15	Exposure: 55.07 mg/m ³ RCR: 0.075	Extended TRA workers
Treatment by dipping and pouring (PROC 13)	Exposure: 513.9 mg/m ³ RCR: 0.35	Exposure: 128.5 mg/m ³ RCR: 0.175	Extended TRA workers
Spraying (PROC 7)	Exposure: 367.1 mg/m ³ RCR: 0.25	Exposure: 91.78 mg/m ³ RCR: 0.125	Extended TRA workers
Maintenance (of larger plant items) and machine set up with local exhaust ventilation (PROC 8b)	Exposure: 18.36 mg/m ³ RCR: 0.012	Exposure: 4.589 mg/m ³ RCR: < 0.01	Extended TRA workers

**Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006**



Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

Maintenance (of larger plant items) and machine set up without local exhaust ventilation (PROC 8b)	Exposure: 367.1 mg/m ³ RCR: 0.25	Exposure: 91.78 mg/m ³ RCR: 0.125	Extended TRA workers
Maintenance of small items (PROC 8a)	Exposure: 734.2 mg/m ³ RCR: 0.5	Exposure: 183.6 mg/m ³ RCR: 0.25	Extended TRA workers
Remanufacture of reject articles (PROC 9)	Exposure: 220.3 mg/m ³ RCR: 0.15	Exposure: 55.07 mg/m ³ RCR: 0.075	Extended TRA workers
Depolama (PROC 2)	Exposure: 73.42 mg/m ³ RCR: 0.05	Exposure: 18.36 mg/m ³ RCR: 0.025	Extended TRA workers

Local effects via dermal route

A DNEL for local effects of acute dermal exposure was not derived as an acute toxicity hazard has not been identified. For local effects of long-term dermal exposure, a DNEL was not derived as there is no information available about threshold effects and/or dose-response. Consequently, RCR values were not calculated for both exposure patterns.

4.Guidance to Downstream User to evaluate whether he works inside the boundaries set by the ES

The Use Descriptors assigned based on the ECHA guidance on use descriptors R-12 represent the current understanding of the uses of our product

(http://echa.europa.eu/documents/10162/13632/information_requirements_r12_en.pdf).

Please carefully consider whether the listed Exposure Scenarios reflect your uses of Celanese's product. Different uses can be addressed in the same exposure scenario if the same operational conditions and risk management measures apply to all these uses. In addition, various types of activities can be expressed by one category for workers' exposure and one category for environmental exposure.

ECHA's "Guidance for Downstream Users" provides details how to decide whether or not your use is covered by the exposure scenarios and what to do if this is not the case

(http://echa.europa.eu/documents/10162/13634/du_en.pdf).

Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

12. Exposure Scenario

1. Maruz kalma Senaryosu Başlığı

Workers (industrial/professional) Use in lubricants;

Environment Wide dispersive indoor use of processing aids in open systems (ERC 8a)

Worker

General exposures (closed systems) (PROC 1)
General process exposures - closed batch process with sample collection (PROC 3)
Operation of closed equipment containing functional fluids (PROC 20)
General exposures (open systems) (PROC 4)
Bulk transfers (PROC 8b)
Filling / preparation of equipment from drums or containers Dedicated facility (PROC 8b)
Filling / preparation of equipment from drums or containers Non-dedicated facility (PROC 8a)
Operation and lubrication of high energy open equipment Lubricants Indoor (PROC 17)
Operation and lubrication of high energy open equipment Greases Indoor (PROC 18)
Operation and lubrication of high energy open equipment Lubricants Outdoor (PROC 17)
Maintenance (of larger plant items) and machine set up (PROC 8a)
Maintenance (of larger plant items) and machine set up Elevated temperature (PROC 8a)
Maintenance of small items (PROC 9)
Rolling, Brushing Manual with local exhaust ventilation (PROC 10)
Rolling, Brushing Manual without local exhaust ventilation (PROC 10)
Spraying with local exhaust ventilation (PROC 11)
Spraying without local exhaust ventilation (PROC 11)
Treatment by dipping and pouring (PROC 13)
Depolama (PROC 2)

2. Conditions of use affecting exposure

2.1 Çevresel maruziyetin kontrolü Wide dispersive indoor use of processing aids in open systems (ERC 8a)

Product characteristics	Uygulanamaz
Amounts used, frequency and duration of use (or from service life)	Uygulanamaz
Technical and organizational conditions and measures	Uygulanamaz
Conditions and measures related to sewage treatment plant	Uygulanamaz
Conditions and measures related to treatment of waste (including article waste)	Dispose of waste or used sacks/containers according to local regulations

**Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006**



Ürün ismi	Ethyl acetate	Revize Edildiği Tarih	25.Nis.2014	EU/TR
MSDS No.	80034	Yayın tarihi	25.Nis.2014	
Revizyon numarası	9.01			

Other conditions affecting environmental exposure	Uygulanamaz
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply beyond the REACH CSA	Uygulanamaz

2.2 Control of worker exposure General exposures (closed systems) (PROC 8a)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Use in closed process, no likelihood of exposure Temel (profesyonel) maruziyet varsayılır
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Processing not higher than 40°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

2.3 Control of worker exposure General process exposures - closed batch process with sample collection (PROC 3)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)

**Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006**



Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

Technical and organizational conditions and measures	Provide a good standard of general or controlled ventilation. (3 to 5 air changes per hour). Use in closed batch process (synthesis or formulation) Temel (profesyonel) maruziyet varsayılır
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Processing not higher than 40°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

2.4 Control of worker exposure Operation of closed equipment containing functional fluids

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Temel (profesyonel) maruziyet varsayılır
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Processing not higher than 40°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

2.5 Control of worker exposure General exposures (open systems) (PROC 4)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
---	--

Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006



Ürün ismi	Ethyl acetate	Revize Edildiği Tarih	25.Nis.2014	EU/TR
MSDS No.	80034	Yayın tarihi	25.Nis.2014	
Revizyon numarası	9.01			

Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Maruziyet fırsatı olan yarı kapalı bir işlem içinde kullanın Local exhaust ventilation - efficiency of at least 80% Temel (profesyonel) maruziyet varsayılır
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Processing not higher than 40°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

2.6 Control of worker exposure Bulk transfers (PROC 8b)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Maruziyet fırsatı olan yarı kapalı bir işlem içinde kullanın Temel (profesyonel) maruziyet varsayılır
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Processing not higher than 40°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006



Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

Çalışanların maruziyeti kontrolü Filling preparation of equipment from drums or containers - dedicated facility (PROC 8b)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Maruziyet fırsatı olan yarı kapalı bir işlem içinde kullanın Temel (profesyonel) maruziyet varsayılır
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Processing not higher than 40°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

Çalışanların maruziyeti kontrolü Filling / preparation of equipment from drums or containers - non-dedicated (PROC 8a)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Temel (profesyonel) maruziyet varsayılır
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	Ensure operation is undertaken outdoors Processing not higher than 40°C

**Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006**



Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz
---	-------------

2.9 Control of worker exposure Operation and lubrication of high energy open equipment Lubricants Indoor (PROC 17)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Local exhaust ventilation - efficiency of at least 80% Temel (profesyonel) maruziyet varsayılır
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Processing not higher than 40°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

2.10 Control of worker exposure Operation and lubrication of high energy open equipment Greases Indoor (PROC 18)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Local exhaust ventilation - efficiency of at least 80% Temel (profesyonel) maruziyet varsayılır

**Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006**



Ürün ismi	Ethyl acetate	Revize Edildiği Tarih	25.Nis.2014	EU/TR
MSDS No.	80034	Yayın tarihi	25.Nis.2014	
Revizyon numarası	9.01			

Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Processing not higher than 40°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

2.11 Control of worker exposure Operation and lubrication of high energy open equipment Lubricants Outdoor (PROC 17)

Product (article) characteristic	Limit the concentration of the substance in the used product to 5 %.
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Temel (profesyonel) maruziyet varsayılır
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	Ensure operation is undertaken outdoors Processing not higher than 40°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

2.12 Control of worker exposure Maintenance (of larger plant items) and machine set up (PROC 8a)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
----------------------------------	--

Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006



Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a good standard of general or controlled ventilation. (3 to 5 air changes per hour). Temel (profesyonel) maruziyet varsayılır
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Processing not higher than 40°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

2.13 Control of worker exposure Maintenance (of larger plant items) and machine set up Elevated temperature (PROC 8a)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Local exhaust ventilation - efficiency of at least 80% Temel (profesyonel) maruziyet varsayılır
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Processing not higher than 40°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006



Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

2.14 Control of worker exposure Maintenance of small items (PROC 9)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a good standard of general or controlled ventilation. (5 to 10 air changes per hour). Maruziyet fırsatı olan yarı kapalı bir işlem içinde kullanın Temel (profesyonel) maruziyet varsayılır
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Processing not higher than 40°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

2.15 Control of worker exposure Manual roller application or brushing with local exhaust ventilation (PROC 10)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a good standard of general or controlled ventilation. (3 to 5 air changes per hour). Local exhaust ventilation - efficiency of at least 80% Temel (profesyonel) maruziyet varsayılır
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Processing not higher than 40°C

**Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006**



Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz
---	-------------

2.16 Control of worker exposure Manual roller application or brushing without local exhaust ventilation (PROC 10)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Temel (profesyonel) maruziyet varsayılır
Conditions and measures related to personal protection, hygiene and health evaluation	Wear a respirator providing a minimum efficiency of 90% Daha fazla teknik özellik için bkz. SD, bölüm 8.
Other conditions affecting workers exposure	İçeride kullanımı Processing not higher than 40°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

2.17 Control of worker exposure Spraying with local exhaust ventilation (PROC 11)

Product (article) characteristic	Limit the concentration of the substance in the used product to 25 %.
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Local exhaust ventilation - efficiency of at least 80 Temel (profesyonel) maruziyet varsayılır

**Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006**



Ürün ismi	Ethyl acetate	Revize Edildiği Tarih	25.Nis.2014	EU/TR
MSDS No.	80034	Yayın tarihi	25.Nis.2014	
Revizyon numarası	9.01			

Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Processing not higher than 40°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

2.18 Control of worker exposure Spraying without local exhaust ventilation (PROC 11)

Product (article) characteristic	Limit the concentration of the substance in the used product to 25 %.
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Temel (profesyonel) maruziyet varsayılır
Conditions and measures related to personal protection, hygiene and health evaluation	Spesifik aktivite eğitimlerini verin ve kimyasal dirençli eldiven kullanın (EN374'e göre test edilmiş) Wear a respirator providing a minimum efficiency of Daha fazla teknik özellik için bkz. SD, bölüm 8.
Other conditions affecting workers exposure	Uygulanamaz İçeride kullanımı Processing not higher than 40°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

2.19 Control of worker exposure Batırma ve dökme yöntemiyle işleme (PROC 13)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
----------------------------------	--

**Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006**



Ürün ismi	Ethyl acetate	Revize Edildiği Tarih	25.Nis.2014	EU/TR
MSDS No.	80034	Yayın tarihi	25.Nis.2014	
Revizyon numarası	9.01			

Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a good standard of general or controlled ventilation. (5 to 10 air changes per hour). Temel (profesyonel) maruziyet varsayılır
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Processing not higher than 40°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

2.20 Control of worker exposure Depolama (PROC 2)

Product (article) characteristic	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently)
Technical and organizational conditions and measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour) Use in closed, continuous process with occasional controlled exposure Temel (profesyonel) maruziyet varsayılır
Conditions and measures related to personal protection, hygiene and health evaluation	Uygulanamaz
Other conditions affecting workers exposure	İçeride kullanımı Processing not higher than 40°C
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply	Uygulanamaz

3.Maruz kalma tahmini ve kaynağın referansı

**Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006**



Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

Environment

Release route	Release rate (kg/day)	Release estimation method
Su	0.014	ERC based
Hava	0.014	ERC based
Toprak	0	ERC based

Protection target	Exposure estimate (based on: EUSES)	RCR
Freshwater (pelagic)	4.041E-4 mg/L	< 0.01
Freshwater (sediment)	0.002 mg/kg dw	< 0.01
Marine water (pelagic)	6.02E-5 mg/L	< 0.01
Marine water (sediment)	3.59E-4 mg/kg dw	< 0.01
Freshwater food chain (predators)	5.137E-4 mg/kg ww	< 0.01
Marine water food chain (predators)	7.932E-5 mg/kg ww	< 0.01
Marine water food chain (top predators)	7.474E-5 mg/kg ww	< 0.01
Sewage treatment plant	8.101E-4 mg/L	< 0.01
Agricultural soil	1.295E-4 mg/kg dw	< 0.01
Terrestrial food chain (predator)	1.131E-4 mg/kg ww	< 0.01

Risk characterisation for man via the environment

Inhalation: 4.8E-4 mg/m³ - RCR: < 0.01

Oral: 1.605E-5 mg/kg bw/day - RCR: < 0.01

Worker exposure

Long-term, systemic

Contributing scenario:	Inhalation	Dermal:	Combined routes:	Exposure Estimation Method:
General exposures (closed systems) (PROC 1)	Exposure: 0.037 mg/m ³ RCR: < 0.01	Exposure: 0.034 mg/kg bw/d RCR: < 0.01	RCR: < 0.01	Inhalation: Extended TRA workers Dermal: Extended TRA workers
General exposures (closed systems) Batch process with sample collection (PROC 3)	Exposure: 64.24 mg/m ³ RCR: 0.088	Exposure: 0.69 mg/kg bw/d RCR: 0.011	RCR: 0.098	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Operation of closed equipment containing functional fluids (PROC 20)	Exposure: 73.42 mg/m ³ RCR: 0.1	Exposure: 1.71 mg/kg bw/d RCR: 0.027	RCR: 0.127	Inhalation: Extended TRA workers Dermal: Extended TRA workers
General exposures (open systems) (PROC 4)	Exposure: 36.71 mg/m ³ RCR: 0.05	Exposure: 6.86 mg/kg bw/d RCR: 0.109	RCR: 0.159	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Bulk transfers (PROC 8b)	Exposure: 183.6 mg/m ³ RCR: 0.25	Exposure: 13.71 mg/kg bw/d RCR: 0.218	RCR: 0.468	Inhalation: Extended TRA workers Dermal: Extended TRA workers

**Emniyet esasları cetveli
(AT) kararname si uyarınca, No: 1907/2006**



Ürün ismi	Ethyl acetate			EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014	
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014	

Filling / preparation of equipment from drums or containers Dedicated facility (PROC 8b)	Exposure: 183.6 mg/m ³ RCR: 0.25	Exposure: 13.71 mg/kg bw/d RCR: 0.218	RCR: 0.468	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Filling / preparation of equipment from drums or containers Non-dedicated facility (PROC 8a)	Exposure: 257 mg/m ³ RCR: 0.35	Exposure: 13.71 mg/kg bw/d RCR: 0.218	RCR: 0.568	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Operation and lubrication of high energy open equipment Lubricants Indoor (PROC 17)	Exposure: 146.8 mg/m ³ RCR: 0.2	Exposure: 27.43 mg/kg bw/d RCR: 0.435	RCR: 0.636	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Operation and lubrication of high energy open equipment Greases Indoor (PROC 18)	Exposure: 146.8 mg/m ³ RCR: 0.2	Exposure: 13.71 mg/kg bw/d RCR: 0.218	RCR: 0.418	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Operation and lubrication of high energy open equipment Lubricants Outdoor (PROC 17)	Exposure: 102.8 mg/m ³ RCR: 0.14	Exposure: 5.486 mg/kg bw/d RCR: 0.087	RCR: 0.227	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Maintenance (of larger plant items) and machine set up (PROC 8a)	Exposure: 257 mg/m ³ RCR: 0.35	Exposure: 13.71 mg/kg bw/d RCR: 0.218	RCR: 0.568	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Maintenance (of larger plant items) and machine set up Elevated temperature (PROC 8a)	Exposure: 73.42 mg/m ³ RCR: 0.1	Exposure: 13.71 mg/kg bw/d RCR: 0.218	RCR: 0.318	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Maintenance of small items (PROC 9)	Exposure: 110.1 mg/m ³ RCR: 0.15	Exposure: 6.86 mg/kg bw/d RCR: 0.109	RCR: 0.259	Inhalation: Extended TRA workers Dermal: Extended TRA workers

Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006



Ürün ismi	Ethyl acetate			EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014	
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014	

Rolling, Brushing Manual with local exhaust ventilation (PROC 10)	Exposure: 51.39 mg/m ³ RCR: 0.07	Exposure: 27.43 mg/kg bw/d RCR: 0.435	RCR: 0.505	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Rolling, Brushing Manual without local exhaust ventilation (PROC 10)	Exposure: 36.71 mg/m ³ RCR: 0.05	Exposure: 27.43 mg/kg bw/d RCR: 0.435	RCR: 0.485	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Spraying with local exhaust ventilation (PROC 11)	Exposure: 220.3 mg/m ³ RCR: 0.3	Exposure: 12.86 mg/kg bw/d RCR: 0.204	RCR: 0.504	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Spraying without local exhaust ventilation (PROC 11)	Exposure: 110.1 mg/m ³ RCR: 0.15	Exposure: 12.86 mg/kg bw/d RCR: 0.204	RCR: 0.354	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Treatment by dipping and pouring (PROC 13)	Exposure: 110.1 mg/m ³ RCR: 0.15	Exposure: 13.71 mg/kg bw/d RCR: 0.218	RCR: 0.368	Inhalation: Extended TRA workers Dermal: Extended TRA workers
Depolama (PROC 2)	Exposure: 73.42 mg/m ³ RCR: 0.1	Exposure: 1.37 mg/kg bw/d RCR: 0.022	RCR: 0.122	Inhalation: Extended TRA workers Dermal: Extended TRA workers

Acute systemic

Contributing Scenario:	Solumum:	Dermal:	Combined routes:	Exposure Estimation Method:
General exposures (closed systems) (PROC 1)	Exposure: 0.147 mg/m ³ RCR: < 0.01	Uygulanamaz	RCR: < 0.01	Extended TRA workers
General exposures (closed systems) Batch process with sample collection (PROC 3)	Exposure: 257 mg/m ³ RCR: 0.175	Uygulanamaz	RCR: 0.175	Extended TRA workers
Operation of closed equipment containing functional fluids (PROC 20)	Exposure: 293.7 mg/m ³ RCR: 0.2	Uygulanamaz	RCR: 0.2	Extended TRA workers
General exposures (open systems) (PROC 4)	Exposure: 146.8 mg/m ³ RCR: 0.1	Uygulanamaz	RCR: 0.1	Extended TRA workers

Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006



Ürün ismi	Ethyl acetate			EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014	
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014	

Bulk transfers (PROC 8b)	Exposure: 734.2 mg/m ³ RCR: 0.5	Uygulanamaz	RCR: 0.5	Extended TRA workers
Filling / preparation of equipment from drums or containers Dedicated facility (PROC 8b)	Exposure: 734.2 mg/m ³ RCR: 0.5	Uygulanamaz	RCR: 0.5	Extended TRA workers
Filling / preparation of equipment from drums or containers Non-dedicated facility (PROC 8a)	Exposure: 1.028E3 mg/m ³ RCR: 0.7	Uygulanamaz	RCR: 0.7	Extended TRA workers
Operation and lubrication of high energy open equipment Lubricants Indoor (PROC 17)	Exposure: 587.4 mg/m ³ RCR: 0.4	Uygulanamaz	RCR: 0.4	Extended TRA workers
Operation and lubrication of high energy open equipment Greases Indoor (PROC 18)	Exposure: 587.4 mg/m ³ RCR: 0.4	Uygulanamaz	RCR: 0.4	Extended TRA workers
Operation and lubrication of high energy open equipment Lubricants Outdoor (PROC 17)	Exposure: 411.2 mg/m ³ RCR: 0.28	Uygulanamaz	RCR: 0.28	Extended TRA workers
Maintenance (of larger plant items) and machine set up (PROC 8a)	Exposure: 1.028E3 mg/m ³ RCR: 0.7	Uygulanamaz	RCR: 0.7	Extended TRA workers
Maintenance (of larger plant items) and machine set up Elevated temperature (PROC 8a)	Exposure: 293.7 mg/m ³ RCR: 0.2	Uygulanamaz	RCR: 0.2	Extended TRA workers
Maintenance of small items (PROC 9)	Exposure: 440.5 mg/m ³ RCR: 0.3	Uygulanamaz	RCR: 0.3	Extended TRA workers

**Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006**



Ürün ismi	Ethyl acetate			EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014	
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014	

Rolling, Brushing Manual with local exhaust ventilation (PROC 10)	Exposure: 205.6 mg/m ³ RCR: 0.14	Uygulanamaz	RCR: 0.14	Extended TRA workers
Rolling, Brushing Manual without local exhaust ventilation (PROC 10)	Exposure: 146.8 mg/m ³ RCR: 0.1	Uygulanamaz	RCR: 0.1	Extended TRA workers
Spraying with local exhaust ventilation (PROC 11)	Exposure: 881.1 mg/m ³ RCR: 0.6	Uygulanamaz	RCR: 0.6	Extended TRA workers
Spraying without local exhaust ventilation (PROC 11)	Exposure: 440.5 mg/m ³ RCR: 0.3	Uygulanamaz	RCR: 0.3	Extended TRA workers
Treatment by dipping and pouring (PROC 13)	Exposure: 440.5 mg/m ³ RCR: 0.3	Uygulanamaz	RCR: 0.3	Extended TRA workers
Depolama (PROC 2)	Exposure: 293.7 mg/m ³ RCR: 0.2	Uygulanamaz	RCR: 0.2	Extended TRA workers

Local effects via inhalation route

Contributing scenario:	Akut:	Uzun süreli:	Exposure Estimation Method:
General exposures (closed systems) (PROC 1)	Exposure: 0.147 mg/m ³ RCR: < 0.01	Exposure: 0.037 mg/m ³ RCR: < 0.01	Extended TRA workers
General exposures (closed systems) Batch process (PROC 3)	Exposure: 257 mg/m ³ RCR: 0.175	Exposure: 64.24 mg/m ³ RCR: 0.088	Extended TRA workers
Operation of closed equipment containing functional fluids (PROC 20)	Exposure: 293.7 mg/m ³ RCR: 0.2	Exposure: 73.42 mg/m ³ RCR: 0.1	Extended TRA workers
General exposures (open systems) (PROC 4)	Exposure: 146.8 mg/m ³ RCR: 0.1	Exposure: 36.71 mg/m ³ RCR: 0.05	Extended TRA workers
Bulk transfers (PROC 8b)	Exposure: 734.2 mg/m ³ RCR: 0.5	Exposure: 183.6 mg/m ³ RCR: 0.25	Extended TRA workers

**Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006**



Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

Filling / preparation of equipment from drums or containers Dedicated facility (PROC 8b)	Exposure: 734.2 mg/m ³ RCR: 0.5	Exposure: 183.6 mg/m ³ RCR: 0.25	Extended TRA workers
Filling / preparation of equipment from drums or containers Non-dedicated facility (PROC 8a)	Exposure: 1.028E3 mg/m ³ RCR: 0.7	Exposure: 257 mg/m ³ RCR: 0.35	Extended TRA workers
Operation and lubrication of high energy open equipment Lubricants Indoor (PROC 17)	Exposure: 587.4 mg/m ³ RCR: 0.4	Exposure: 146.8 mg/m ³ RCR: 0.2	Extended TRA workers
Operation and lubrication of high energy open equipment Greases Indoor (PROC 18)	Exposure: 587.4 mg/m ³ RCR: 0.4	Exposure: 146.8 mg/m ³ RCR: 0.2	Extended TRA workers
Operation and lubrication of high energy open equipment Lubricants Outdoor (PROC 17)	Exposure: 411.2 mg/m ³ RCR: 0.28	Exposure: 102.8 mg/m ³ RCR: 0.14	Extended TRA workers
Maintenance (of larger plant items) and machine set up (PROC 8a)	Exposure: 1.028E3 mg/m ³ RCR: 0.7	Exposure: 257 mg/m ³ RCR: 0.35	Extended TRA workers
Maintenance (of larger plant items) and machine set up Elevated temperature (PROC 8a)	Exposure: 293.7 mg/m ³ RCR: 0.2	Exposure: 73.42 mg/m ³ RCR: 0.1	Extended TRA workers
Maintenance of small items (PROC 9)	Exposure: 440.5 mg/m ³ RCR: 0.3	Exposure: 110.1 mg/m ³ RCR: 0.15	Extended TRA workers
Rolling, Brushing Manual with local exhaust ventilation (PROC 10)	Exposure: 205.6 mg/m ³ RCR: 0.14	Exposure: 51.39 mg/m ³ RCR: 0.07	Extended TRA workers
Rolling, Brushing Manual without local exhaust ventilation (PROC 10)	Exposure: 146.8 mg/m ³ RCR: 0.1	Exposure: 36.71 mg/m ³ RCR: 0.05	Extended TRA workers

**Emniyet esasları cetveli
(AT) kararnameyi uyarınca, No: 1907/2006**



Ürün ismi	Ethyl acetate		EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014

Spraying with local exhaust ventilation (PROC 11)	Exposure: 881.1 mg/m ³ RCR: 0.6	Exposure: 220.3 mg/m ³ RCR: 0.3	Extended TRA workers
Spraying with local exhaust ventilation (PROC 11)	Exposure: 440.5 mg/m ³ RCR: 0.3	Exposure: 110.1 mg/m ³ RCR: 0.15	Extended TRA workers
Treatment by dipping and pouring (PROC 13)	Exposure: 440.5 mg/m ³ RCR: 0.3	Exposure: 110.1 mg/m ³ RCR: 0.15	Extended TRA workers
Depolama (PROC 2)	Exposure: 293.7 mg/m ³ RCR: 0.2	Exposure: 73.42 mg/m ³ RCR: 0.1	Extended TRA workers

Local effects via dermal route

A DNEL for local effects of acute dermal exposure was not derived as an acute toxicity hazard has not been identified. For local effects of long-term dermal exposure, a DNEL was not derived as there is no information available about threshold effects and/or dose-response. Consequently, RCR values were not calculated for both exposure patterns.

4.Guidance to Downstream User to evaluate whether he works inside the boundaries set by the ES

The Use Descriptors assigned based on the ECHA guidance on use descriptors R-12 represent the current understanding of the uses of our product

(http://echa.europa.eu/documents/10162/13632/information_requirements_r12_en.pdf).

Please carefully consider whether the listed Exposure Scenarios reflect your uses of Celanese's product. Different uses can be addressed in the same exposure scenario if the same operational conditions and risk management measures apply to all these uses. In addition, various types of activities can be expressed by one category for workers' exposure and one category for environmental exposure.

ECHA's "Guidance for Downstream Users" provides details how to decide whether or not your use is covered by the exposure scenarios and what to do if this is not the case

(http://echa.europa.eu/documents/10162/13634/du_en.pdf).

Ürün ismi	Ethyl acetate			EU/TR
MSDS No.	80034	Revize Edildiği Tarih	25.Nis.2014	
Revizyon numarası	9.01	Yayın tarihi	25.Nis.2014	

4.Guidance to Downstream User to evaluate whether he works inside the boundaries set by the ES

The Use Descriptors assigned based on the ECHA guidance on use descriptors R-12 represent the current understanding of the uses of our product

(http://echa.europa.eu/documents/10162/13632/information_requirements_r12_en.pdf).

Please carefully consider whether the listed Exposure Scenarios reflect your uses of Celanese's product. Different uses can be addressed in the same exposure scenario if the same operational conditions and risk management measures apply to all these uses. In addition, various types of activities can be expressed by one category for workers' exposure and one category for environmental exposure.

ECHA's "Guidance for Downstream Users" provides details how to decide whether or not your use is covered by the exposure scenarios and what to do if this is not the case

(http://echa.europa.eu/documents/10162/13634/du_en.pdf).