

**E-274**  
**Solvent based Hardeners**

**SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**

- 1.1 Product identifier:** E-274  
Solvent based Hardeners
- 1.2 Relevant identified uses of the substance or mixture and uses advised against:**  
Relevant uses: Hardener for coatings. For professional use only.  
Uses advised against: All uses not specified in this section or in section 7.3
- 1.3 Details of the supplier of the safety data sheet:** BERNARDO ECENARRO, S.A.  
Ugarte Industrialdea, 147  
20720 Azkoitia - Gipuzkoa - Spain  
Phone.: +34 943 74 28 00 -  
Fax: +34 943 74 06 03  
msds@besa.es  
http://www.besa.es
- 1.4 Emergency telephone number:** +34 943742800 (8:00-13:00) (14:30-17:30)

**SECTION 2: HAZARDS IDENTIFICATION**

**2.1 Classification of the substance or mixture:**

**Directive 67/548/EC and Directive 1999/45/EC:**

This product was classified in accordance with Directive 67/548/EC and Directive 1999/45/EC, adapting the requirements to Regulation (EC) n°1907/2006 (REACH regulation).

F: R11 - Highly flammable

Xi: R36/38 - Irritating to eyes and skin, R43 - May cause sensitisation by skin contact

Xn: R20/21 - Harmful by inhalation and in contact with skin

**CLP Regulation (EC) n° 1272/2008:**

Classification of this product has been carried out in accordance with CLP Regulation (EC) n° 1272/2008.

Eye Irrit. 2: Eye irritation, Category 2, H319

Flam. Liq. 2: Flammable liquids, Category 2, H225

Skin Irrit. 2: Skin irritation, Category 2, H315

Skin Sens. 1: Sensitisation, skin, Category 1, H317

**2.2 Label elements:**

**Directive 67/548/EC and Directive 1999/45/EC:**

In accordance with the legislation, the elements on the label are as follows:



Highly flammable



Harmful

**R Phrases:**

R11: Highly flammable

R20/21: Harmful by inhalation and in contact with skin

R36/38: Irritating to eyes and skin

R43: May cause sensitisation by skin contact

**S Phrases:**

S16: Keep away from sources of ignition - No smoking

S24: Avoid contact with skin

S36/37: Wear suitable protective clothing and gloves

S43: In case of fire, use polyvalent powder ABC

S9: Keep container in a well-ventilated place

**Supplementary information:**

P91: Contains isocyanates-Read the information provided by the manufacturer

**Substances that contribute to the classification:**

Xylene (mixture of isomers); Toluene diisocyanate, oligomeric reaction products with 2,2'-oxydiethanol and propylidenedimethanol

**CLP Regulation (EC) n° 1272/2008:**

**Danger**

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**SECTION 2: HAZARDS IDENTIFICATION (continue)**



**Hazard statements:**

Eye Irrit. 2: H319 - Causes serious eye irritation  
Flam. Liq. 2: H225 - Highly flammable liquid and vapour  
Skin Irrit. 2: H315 - Causes skin irritation  
Skin Sens. 1: H317 - May cause an allergic skin reaction

**Precautionary statements:**

P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking  
P280: Wear protective gloves/protective clothing/eye protection/face protection  
P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower  
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
P370+P378: In case of fire: Use ABC powder extinguisher to extinguish.  
P501: Dispose of contents and / or containers in accordance with regulations on hazardous waste or packaging and packaging waste respectively

**Supplementary information:**

EUH066: Repeated exposure may cause skin dryness or cracking  
EUH204: Contains isocyanates. May produce an allergic reaction  
EUH208: Contains Toluene Diisocyanate. May produce an allergic reaction

**Substances that contribute to the classification**

Toluene diisocyanate, oligomeric reaction products with 2,2'-oxydiethanol and propylidene-trimethanol

**2.3 Other hazards:**

Non-applicable

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

**3.1 Substance:**

Non-applicable

**3.2 Mixture:**

**Chemical description:** Mixture composed of additives and resins in solvents

**Components:**

In accordance with Annex II of Regulation (EC) n°1907/2006 (point 3), the product contains:

Identification	Chemical name/Classification	Concentration
CAS: 1330-20-7 EC: 215-535-7 Index: 601-022-00-9 REACH: 01-2119488216-32-XXXX	<b>Xylene (mixture of isomers)</b> Directive 67/548/EC Xi: R38; Xn: R20/21; R10 Regulation 1272/2008 Acute Tox. 4: H312+H332; Flam. Liq. 3: H226; Skin Irrit. 2: H315 - Warning	ATP CLP00 25 - <50 % 
CAS: 53317-61-6 EC: 500-120-8 Index: Non-applicable REACH: Non-applicable	<b>Toluene diisocyanate, oligomeric reaction products with 2,2'-oxydiethanol and propylidene-trimethanol</b> Directive 67/548/EC Xi: R36, R43 Regulation 1272/2008 Eye Irrit. 2: H319; Skin Sens. 1: H317 - Warning	Self-classified 25 - <50 % 
CAS: 141-78-6 EC: 205-500-4 Index: 607-022-00-5 REACH: 01-2119475103-46-XXXX	<b>Ethyl Acetate</b> Directive 67/548/EC F: R11; Xi: R36; R66; R67 Regulation 1272/2008 Eye Irrit. 2: H319; Flam. Liq. 2: H225; STOT SE 3: H336 - Danger	ATP CLP00 10 - <25 % 
CAS: 100-41-4 EC: 202-849-4 Index: 601-023-00-4 REACH: 01-2119489370-35-XXXX	<b>Ethylbenzene</b> Directive 67/548/EC F: R11; Xn: R20, R48/20, R65 Regulation 1272/2008 Acute Tox. 4: H332; Asp. Tox. 1: H304; Flam. Liq. 2: H225; STOT RE 2: H373 - Danger	ATP ATP06 5 - <10 % 

To obtain more information on the risk of the substances consult sections 8, 11, 12 and 16.

**SECTION 4: FIRST AID MEASURES**

**4.1 Description of first aid measures:**

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**SECTION 4: FIRST AID MEASURES (continue)**

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

**By inhalation:**

This product does not contain substances classified as dangerous for inhalation, however, in case of symptoms of intoxication remove the person affected from the exposure area and provide with fresh air. Seek medical attention if the symptoms get worse or persist.

**By skin contact:**

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

**By eye contact:**

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

**By ingestion/aspiration:**

Do not induce vomiting, but if it does happen keep the head up to avoid inhalation. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

**4.2 Most important symptoms and effects, both acute and delayed:**

Acute and delayed effects are indicated in sections 2 and 11.

**4.3 Indication of any immediate medical attention and special treatment needed:**

Non-applicable

**SECTION 5: FIREFIGHTING MEASURES**

**5.1 Extinguishing media:**

Product is non-flammable under normal conditions of storage, manipulation and use. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

**5.2 Special hazards arising from the substance or mixture:**

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

**5.3 Advice for firefighters:**

Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...) in accordance with Directive 89/654/EC.

**Additional provisions:**

Act in accordance with the Internal Emergency Plan and the Information Sheets on actions to take after an accident or other emergencies. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation, explosion or BLEVE as a result of high temperatures. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

**SECTION 6: ACCIDENTAL RELEASE MEASURES**

**6.1 Personal precautions, protective equipment and emergency procedures:**

Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

**6.2 Environmental precautions:**

This product is not classified as dangerous to the environment. Keep product away from drains, surface and underground water.

**6.3 Methods and material for containment and cleaning up:**

It is recommended:

Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

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**SECTION 6: ACCIDENTAL RELEASE MEASURES (continue)**

**6.4 Reference to other sections:**

See sections 8 and 13.

**SECTION 7: HANDLING AND STORAGE**

**7.1 Precautions for safe handling:**

A.- Precautions for safe manipulation

Comply with the current legislation concerning the prevention of industrial risks. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions

Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks

It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

**7.2 Conditions for safe storage, including any incompatibilities:**

A.- Technical measures for storage

Minimum Temp.: 5 °C  
Maximum Temp.: 30 °C  
Maximum time: 12 Months

B.- General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

**7.3 Specific end use(s):**

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

**8.1 Control parameters:**

Substances whose occupational exposure limits have to be monitored in the work environment

Identification		Environmental limits	
Ethylbenzene CAS: 100-41-4 EC: 202-849-4	IOELV (8h)	100 ppm	442 mg/m <sup>3</sup>
	IOELV (STEL)	200 ppm	884 mg/m <sup>3</sup>
	Year	2014	
Xylene (mixture of isomers) CAS: 1330-20-7 EC: 215-535-7	IOELV (8h)	50 ppm	221 mg/m <sup>3</sup>
	IOELV (STEL)	100 ppm	442 mg/m <sup>3</sup>
	Year	2014	

**DNEL (Workers):**

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Xylene (mixture of isomers) CAS: 1330-20-7 EC: 215-535-7	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	180 mg/kg	Non-applicable
	Inhalation	289 mg/m <sup>3</sup>	289 mg/m <sup>3</sup>	77 mg/m <sup>3</sup>	Non-applicable
Ethyl Acetate CAS: 141-78-6 EC: 205-500-4	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	63 mg/kg	Non-applicable
	Inhalation	1468 mg/m <sup>3</sup>	1468 mg/m <sup>3</sup>	734 mg/m <sup>3</sup>	734 mg/m <sup>3</sup>
Ethylbenzene CAS: 100-41-4 EC: 202-849-4	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	180 mg/kg	Non-applicable
	Inhalation	Non-applicable	293 mg/m <sup>3</sup>	77 mg/m <sup>3</sup>	Non-applicable

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**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continue)**

**DNEL (General population):**

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Xylene (mixture of isomers) CAS: 1330-20-7 EC: 215-535-7	Oral	Non-applicable	Non-applicable	1,6 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	108 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	14,8 mg/m <sup>3</sup>	Non-applicable
Ethyl Acetate CAS: 141-78-6 EC: 205-500-4	Oral	Non-applicable	Non-applicable	4,5 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	37 mg/kg	Non-applicable
	Inhalation	734 mg/m <sup>3</sup>	734 mg/m <sup>3</sup>	367 mg/m <sup>3</sup>	367 mg/m <sup>3</sup>
Ethylbenzene CAS: 100-41-4 EC: 202-849-4	Oral	Non-applicable	Non-applicable	1,6 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Inhalation	Non-applicable	Non-applicable	15 mg/m <sup>3</sup>	Non-applicable

**PNEC:**

Identification				
Xylene (mixture of isomers) CAS: 1330-20-7 EC: 215-535-7	STP	6,58 mg/L	Fresh water	0,327 mg/L
	Soil	2,31 mg/kg	Marine water	0,327 mg/L
	Intermittent	0,327 mg/L	Sediment (Fresh water)	12,46 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	12,46 mg/kg
Ethyl Acetate CAS: 141-78-6 EC: 205-500-4	STP	650 mg/L	Fresh water	0,24 mg/L
	Soil	0,148 mg/kg	Marine water	0,024 mg/L
	Intermittent	1,65 mg/L	Sediment (Fresh water)	1,15 mg/kg
	Oral	200 g/kg	Sediment (Marine water)	0,115 mg/kg
Ethylbenzene CAS: 100-41-4 EC: 202-849-4	STP	9,6 mg/L	Fresh water	0,1 mg/L
	Soil	2,68 mg/kg	Marine water	0,01 mg/L
	Intermittent	0,1 mg/L	Sediment (Fresh water)	13,7 mg/kg
	Oral	20 g/kg	Sediment (Marine water)	1,37 mg/kg

**8.2 Exposure controls:**

A.- General security and hygiene measures in the work place

As a preventative measure it is recommended to use basic Personal Protection Equipment, with the corresponding <<CE marking>> in accordance with Directive 89/686/EC. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1.

All information contained herein is a recommendation which needs some specification from the labour risk prevention services as it is not known whether the company has additional measures at its disposal.

B.- Respiratory protection

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory respiratory tract protection	Filter mask for gases, vapours and particles		EN 149:2001+A1:2009 EN 405:2001+A1:2009	Replace when an increase in resistance to breathing is observed and/or a smell or taste of the contaminant is detected.

C.- Specific protection for the hands

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory hand protection	NON-disposable chemical protective gloves		EN 374-1:2003 EN 374-3:2003/AC:2006 EN 420:2003+A1:2009	The Breakthrough Time indicated by the manufacturer must exceed the period during which the product is being used. Do not use protective creams after the product has come into contact with skin.

D.- Ocular and facial protection

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**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continue)**

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory face protection	Face mask		EN 166:2001 EN 167:2001 EN 168:2001 EN 172:1994/A1:2000 EN 172:1994/A2:2001 EN ISO 4007:2012	Clean daily and disinfect periodically according to the manufacturer 's instructions. Use if there is a risk of splashing.

**E.- Bodily protection**

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory complete body protection	Disposable clothing for protection against chemical risks, with antistatic and fireproof properties		EN 1149-1,2,3 EN 13034:2005+A1:2009 EN ISO 13982-1:2004/A1:2010 EN ISO 6529:2001 EN ISO 6530:2005 EN ISO 13688:2013 EN 464:1994	For professional use only. Clean periodically according to the manufacturer 's instructions.
 Mandatory foot protection	Safety footwear for protection against chemical risk, with antistatic and heat resistant properties		EN 13287:2008 EN ISO 20345:2011 EN 13832-1:2006 EN ISO 20344:2011	Replace boots at any sign of deterioration.

**F.- Additional emergency measures**

Emergency measure	Standards	Emergency measure	Standards
 Emergency shower	ANSI Z358-1 ISO 3864-1:2002	 Eyewash stations	DIN 12 899 ISO 3864-1:2002

**Environmental exposure controls:**

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

**Volatile organic compounds:**

With regard to Directive 2010/75/EU, this product has the following characteristics:

V.O.C. (Supply):	62,45 % weight
V.O.C. density at 20 °C:	624,45 kg/m <sup>3</sup> (624,45 g/L)
Average carbon number:	7,2
Average molecular weight:	102,59 g/mol

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

**9.1 Information on basic physical and chemical properties:**

For complete information see the product datasheet.

**Appearance:**

Physical state at 20 °C:	Liquid
Appearance:	Fluid
Color:	Colourless
Odor:	Solvent

**Volatility:**

Boiling point at atmospheric pressure:	119 °C
Vapour pressure at 20 °C:	2916 Pa
Vapour pressure at 50 °C:	12037 Pa (12 kPa)
Evaporation rate at 20 °C:	Non-applicable *

**Product description:**

\*Not relevant due to the nature of the product, not providing information property of its hazards.

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**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continue)**

Density at 20 °C:	990 - 1010 kg/m <sup>3</sup>
Relative density at 20 °C:	0,99 - 1,01
Dynamic viscosity at 20 °C:	43 - 23 cP
Kinematic viscosity at 20 °C:	33 cSt
Kinematic viscosity at 40 °C:	Non-applicable *
Concentration:	Non-applicable *
pH:	Non-applicable *
Vapour density at 20 °C:	Non-applicable *
Partition coefficient n-octanol/water 20 °C:	Non-applicable *
Solubility in water at 20 °C:	Non-applicable *
Solubility properties:	Immiscible
Decomposition temperature:	Non-applicable *
Melting point/freezing point:	Non-applicable *
<b>Flammability:</b>	
Flash Point:	17 °C
Autoignition temperature:	427 °C
Lower flammability limit:	Not available
Upper flammability limit:	Not available

**9.2 Other information:**

Surface tension at 20 °C:	Non-applicable *
Refraction index:	Non-applicable *

\*Not relevant due to the nature of the product, not providing information property of its hazards.

**SECTION 10: STABILITY AND REACTIVITY**

**10.1 Reactivity:**

No hazardous reactions are expected if the following technical instructions storage of chemicals. See section 7.

**10.2 Chemical stability:**

Chemically stable under the conditions of storage, handling and use.

**10.3 Possibility of hazardous reactions:**

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

**10.4 Conditions to avoid:**

Applicable for handling and storage at room temperature:

Shock and friction	Contact with air	Increase in temperature	Sunlight	Humidity
Not applicable	Not applicable	Not applicable	Avoid direct impact	Not applicable

**10.5 Incompatible materials:**

Acids	Water	Combustive materials	Combustible materials	Others
Not applicable	Not applicable	Avoid direct impact	Not applicable	Not applicable

**10.6 Hazardous decomposition products:**

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO<sub>2</sub>), carbon monoxide and other organic compounds.

**SECTION 11: TOXICOLOGICAL INFORMATION**

**11.1 Information on toxicological effects:**

The experimental information related to the toxicological properties of the product itself is not available

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**SECTION 11: TOXICOLOGICAL INFORMATION (continue)**

**Dangerous health implications:**

In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A.- Ingestion:

- Acute toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.

B- Inhalation:

- Acute toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

C- Contact with the skin and the eyes:

- Contact with the skin: Produces skin inflammation.
- Contact with the eyes: Produces eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensibilizing effects. For more information see section 3.
- Cutaneous: Prolonged contact with the skin can result in episodes of allergic contact dermatitis.

F- Specific target organ toxicity (STOT)-time exposure:

Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, however, it does contain substances which are classified as dangerous due to repetitive exposure. For more information see section 3.
- Skin: Repeated exposure may cause skin dryness or cracking

H- Aspiration hazard:

Based on available data, the classification criteria are not met, however it does contain substances classified as dangerous for this effect. For more information see section 3.

**Other information:**

Non-applicable

**Specific toxicology information on the substances:**

Identification		Acute toxicity	Genus
Ethyl Acetate CAS: 141-78-6 EC: 205-500-4	LD50 oral	4100 mg/kg	Rat
	LD50 dermal	20000 mg/kg	Rabbit
	LC50 inhalation	Non-applicable	
Toluene diisocyanate, oligomeric reaction products with 2,2'-oxydiethanol and propylenetriethanol CAS: 53317-61-6 EC: 500-120-8	LD50 oral	>2000 mg/kg	
	LD50 dermal	>2000 mg/kg	
	LC50 inhalation	Non-applicable	
Ethylbenzene CAS: 100-41-4 EC: 202-849-4	LD50 oral	3500 mg/kg	Rat
	LD50 dermal	15354 mg/kg	Rabbit
	LC50 inhalation	17,2 mg/L (4 h)	Rat
Xylene (mixture of isomers) CAS: 1330-20-7 EC: 215-535-7	LD50 oral	2100 mg/kg	Rat
	LD50 dermal	1100 mg/kg	Rat
	LC50 inhalation	11 mg/L (4 h)	Rat

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**SECTION 12: ECOLOGICAL INFORMATION**

The experimental information related to the eco-toxicological properties of the product itself is not available

**12.1 Toxicity:**

Identification		Acute toxicity		Specie	Genus
Xylene (mixture of isomers)	LC50	13,5 mg/L (96 h)		Oncorhynchus mykiss	Fish
CAS: 1330-20-7	EC50	0,6 mg/L (96 h)		Gammarus lacustris	Crustacean
EC: 215-535-7	EC50	10 mg/L (72 h)		Skeletonema costatum	Algae
Ethyl Acetate	LC50	230 mg/L (96 h)		Pimephales promelas	Fish
CAS: 141-78-6	EC50	717 mg/L (48 h)		Daphnia magna	Crustacean
EC: 205-500-4	EC50	3300 mg/L (48 h)		Scenedesmus subspicatus	Algae
Ethylbenzene	LC50	42,3 mg/L (96 h)		Pimephales promelas	Fish
CAS: 100-41-4	EC50	75 mg/L (48 h)		Daphnia magna	Crustacean
EC: 202-849-4	EC50	63 mg/L (3 h)		Chlorella vulgaris	Algae

**12.2 Persistence and degradability:**

Identification		Degradability		Biodegradability	
Ethyl Acetate	BOD5	1.36 g O2/g	Concentration		100 mg/L
CAS: 141-78-6	COD	1.69 g O2/g	Period		14 days
EC: 205-500-4	BOD5/COD	0.81	% Biodegradable		83 %
Ethylbenzene	BOD5	Non-applicable	Concentration		100 mg/L
CAS: 100-41-4	COD	Non-applicable	Period		14 days
EC: 202-849-4	BOD5/COD	Non-applicable	% Biodegradable		90 %

**12.3 Bioaccumulative potential:**

Identification		Bioaccumulation potential	
Xylene (mixture of isomers)	BCF		9
CAS: 1330-20-7	Pow Log		2,77
EC: 215-535-7	Potential		Low
Ethyl Acetate	BCF		30
CAS: 141-78-6	Pow Log		0,73
EC: 205-500-4	Potential		Moderate
Ethylbenzene	BCF		1
CAS: 100-41-4	Pow Log		3,15
EC: 202-849-4	Potential		Low

**12.4 Mobility in soil:**

Identification		Absorption/desorption		Volatility	
Xylene (mixture of isomers)	Koc	202	Henry		5,249E+2 Pa·m <sup>3</sup> /mol
CAS: 1330-20-7	Conclusion	Moderate	Dry soil		Yes
EC: 215-535-7	Surface tension	Non-applicable	Moist soil		Yes
Ethyl Acetate	Koc	59	Henry		1,358E+1 Pa·m <sup>3</sup> /mol
CAS: 141-78-6	Conclusion	Very High	Dry soil		Yes
EC: 205-500-4	Surface tension	23240 N/m (25 °C)	Moist soil		Yes
Ethylbenzene	Koc	520	Henry		7,984E+2 Pa·m <sup>3</sup> /mol
CAS: 100-41-4	Conclusion	Moderate	Dry soil		Yes
EC: 202-849-4	Surface tension	28590 N/m (25 °C)	Moist soil		Yes

**12.5 Results of PBT and vPvB assessment:**

Non-applicable

**12.6 Other adverse effects:**

Not described

**SECTION 13: DISPOSAL CONSIDERATIONS**

**13.1 Waste treatment methods:**

Code	Description	Waste class (Regulation (EU) No 1357/2014)

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**SECTION 13: DISPOSAL CONSIDERATIONS (continue)**

08 01 11\*

Waste paint and varnish containing organic solvents or other dangerous substances

Dangerous

**Type of waste (Regulation (EU) No 1357/2014):**

HP3 Flammable, HP4 Irritant — skin irritation and eye damage, HP6 Acute Toxicity, HP13 Sensitising

**Waste management (disposal and evaluation):**

Consult the authorized waste service manager on the assessment and disposal operations in accordance with Annex 1 and Annex 2 (Directive 2008/98/EC). As under 15 01 (2014/955/EC) of the code and in case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See paragraph 6.2.

**Regulations related to waste management:**

In accordance with Annex II of Regulation (EC) n°1907/2006 (REACH) the community or state provisions related to waste management are stated

Community legislation: Directive 2008/98/EC, 2014/955/EU, Regulation (EU) No 1357/2014

**SECTION 14: TRANSPORT INFORMATION**

**Transport of dangerous goods by land:**

With regard to ADR 2015 and RID 2015:



- 14.1 UN number:** UN1263
- 14.2 UN proper shipping name:** PAINT RELATED MATERIAL
- 14.3 Transport hazard class(es):** 3  
Labels: 3
- 14.4 Packing group:** III
- 14.5 Dangerous for the environment:** No
- 14.6 Special precautions for user**  
Special regulations: 163, 367, 650  
Tunnel restriction code: D/E  
Physico-Chemical properties: see section 9  
Limited quantities: 5 L
- 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:** Non-applicable

**Transport of dangerous goods by sea:**

With regard to IMDG 37-14:



- 14.1 UN number:** UN1263
- 14.2 UN proper shipping name:** PAINT RELATED MATERIAL
- 14.3 Transport hazard class(es):** 3  
Labels: 3
- 14.4 Packing group:** III
- 14.5 Dangerous for the environment:** No
- 14.6 Special precautions for user**  
Special regulations: 163, 223, 944, 955  
EmS Codes: F-E, S-E  
Physico-Chemical properties: see section 9  
Limited quantities: 5 L
- 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:** Non-applicable

**Transport of dangerous goods by air:**

With regard to IATA/ICAO 2015:

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**SECTION 14: TRANSPORT INFORMATION (continue)**



<b>14.1 UN number:</b>	UN1263
<b>14.2 UN proper shipping name:</b>	PAINT RELATED MATERIAL
<b>14.3 Transport hazard class(es):</b>	3
Labels:	3
<b>14.4 Packing group:</b>	III
<b>14.5 Dangerous for the environment:</b>	No
<b>14.6 Special precautions for user</b>	
Physico-Chemical properties:	see section 9
<b>14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:</b>	Non-applicable

**SECTION 15: REGULATORY INFORMATION**

**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:**

Candidate substances for authorisation under the Regulation (EC) 1907/2006 (REACH): Non-applicable

Substances included in Annex XIV of REACH ("Authorisation List") and sunset date: Non-applicable

Regulation (EC) 1005/2009, about substances that deplete the ozone layer: Non-applicable

Active substances for which a decision of non-inclusion onto Annex I (Regulation (EU) No 528/2012): Non-applicable

REGULATION (EU) No 649/2012, in relation to the import and export of hazardous chemical products: Non-applicable

**Limitations to commercialisation and the use of certain dangerous substances and mixtures (Annex XVII, REACH):**

Shall not be used, as substance or as mixtures in aerosol dispensers where these aerosol dispensers are intended for supply to the general public for entertainment and decorative purposes such as the following:

- metallic glitter intended mainly for decoration,
- artificial snow and frost,
- "whoopee" cushions,
- silly string aerosols,
- imitation excrement,
- horns for parties,
- decorative flakes and foams,
- artificial cobwebs,
- stink bombs.

**Specific provisions in terms of protecting people or the environment:**

It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

**Other legislation:**

The product could be affected by sectorial legislation

**15.2 Chemical safety assessment:**

The supplier has not carried out evaluation of chemical safety.

**SECTION 16: OTHER INFORMATION**

**Legislation related to safety data sheets:**

This safety data sheet has been designed in accordance with ANNEX II-Guide to the compilation of safety data sheets of Regulation (EC) N° 1907/2006 (Regulation (EC) N° 453/2010)

**Modifications related to the previous security card which concerns the ways of managing risks. :**

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**SECTION 16: OTHER INFORMATION (continue)**

**COMPOSITION/INFORMATION ON INGREDIENTS:**

- Added Content  
Toluene diisocyanate, oligomeric reaction products with 2,2'-oxydiethanol and propylidenetriethanol (53317-61-6)

- Removed Content  
Aromatic Polyisocyanate (9017-01-0)

Directive 67/548/EC and Directive 1999/45/EC:

- S Phrases

CLP Regulation (EC) n° 1272/2008:

- Hazard statements
- Precautionary statements

Content of the 3rd section presenting modifications:

- Ethylbenzene (100-41-4): R Phrases, Hazard statements

**Texts of the legislative phrases mentioned in section 2.:**

H319: Causes serious eye irritation

H317: May cause an allergic skin reaction

H315: Causes skin irritation

H225: Highly flammable liquid and vapour

**Texts of the legislative phrases mentioned in section 3.:**

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

**Directive 67/548/EC and Directive 1999/45/EC:**

- R10: Flammable
- R11: Highly flammable
- R20: Harmful by inhalation
- R20/21: Harmful by inhalation and in contact with skin
- R36: Irritating to eyes
- R38: Irritating to skin
- R43: May cause sensitisation by skin contact
- R48/20: Harmful: danger of serious damage to health by prolonged exposure through inhalation
- R65: Harmful: may cause lung damage if swallowed
- R66: Repeated exposure may cause skin dryness or cracking
- R67: Vapours may cause drowsiness and dizziness

**CLP Regulation (EC) n° 1272/2008:**

- Acute Tox. 4: H312+H332 - Harmful in contact with skin or if inhaled
- Acute Tox. 4: H332 - Harmful if inhaled
- Asp. Tox. 1: H304 - May be fatal if swallowed and enters airways
- Eye Irrit. 2: H319 - Causes serious eye irritation
- Flam. Liq. 2: H225 - Highly flammable liquid and vapour
- Flam. Liq. 3: H226 - Flammable liquid and vapour
- Skin Irrit. 2: H315 - Causes skin irritation
- Skin Sens. 1: H317 - May cause an allergic skin reaction
- STOT RE 2: H373 - May cause damage to organs through prolonged or repeated exposure
- STOT SE 3: H336 - May cause drowsiness or dizziness

**Classification procedure:**

- Eye Irrit. 2: Calculation method
- Skin Sens. 1: Calculation method
- Skin Irrit. 2: Calculation method
- Flam. Liq. 2: Calculation method (2.6.4.3)

**Advice related to training:**

Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

**Principal bibliographical sources:**

- <http://esis.jrc.ec.europa.eu>
- <http://echa.europa.eu>
- <http://eur-lex.europa.eu>

**Abbreviations and acronyms:**

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**SECTION 16: OTHER INFORMATION (continue)**

- ADR: European agreement concerning the international carriage of dangerous goods by road
- IMDG: International maritime dangerous goods code
- IATA: International Air Transport Association
- ICAO: International Civil Aviation Organisation
- COD: Chemical Oxygen Demand
- BOD5: 5-day biochemical oxygen demand
- BCF: Bioconcentration factor
- LD50: Lethal Dose 50
- CL50: Lethal Concentration 50
- EC50: Effective concentration 50
- Log-POW: Octanol–water partition coefficient
- Koc: Partition coefficient of organic carbon

The information contained in this security data sheet is based on sources, technical knowledge and current legislation at European and state level, without being able to guarantee its accuracy. This information cannot be considered a guarantee of the properties of the product, it is simply a description of the security requirements. The occupational methodology and conditions for users of this product are not within our awareness or control, and it is ultimately the responsibility of the user to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information on this security data sheet only refers to this product, which should not be used for needs other than those specified.

- END OF SAFETY DATA SHEET -