

# SAFETY DATA SHEET



387 RELEST® Hardener EP 613

## SECTION 1: Identification of the substance/mixture and of the company/ undertaking

### 1.1 Product identifier

**Product name** : 387 RELEST® Hardener EP 613  
**Product code** : B-I387-0613-1300

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Product is not intended for consumer use.

### 1.3 Details of the supplier of the safety data sheet

Akzo Nobel Hilden GmbH  
Düsseldorfer Str. 96 - 100  
40721 Hilden  
Germany  
Tel 0049 2103 77 1  
Fax +49(0)210377474  
Produced by BASF Coatings GmbH, Germany  
**e-mail address of person responsible for this SDS** : psra.wfa.emea@akzonobel.com

### 1.4 Emergency telephone number

#### National advisory body/Poison Centre

**Telephone number** : +49-2103-51046

#### Supplier

**Telephone number** : +49 2103 510 46

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

**Product definition** : Mixture

#### Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Flam. Liq. 3, H226  
Skin Irrit. 2, H315  
Eye Dam. 1, H318  
Skin Sens. 1, H317  
STOT SE 3, H335  
STOT RE 2, H373  
Aquatic Chronic 2, H411

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.  
See Section 11 for more detailed information on health effects and symptoms.

### 2.2 Label elements

## SECTION 2: Hazards identification

**Hazard pictograms** :



**Signal word** : Danger

**Hazard statements** :

- Flammable liquid and vapour.
- Causes serious eye damage.
- Causes skin irritation.
- May cause an allergic skin reaction.
- May cause respiratory irritation.
- May cause damage to organs through prolonged or repeated exposure.
- Toxic to aquatic life with long lasting effects.

### Precautionary statements

**Prevention** : Wear protective gloves. Wear eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating, lighting and all material-handling equipment. Avoid release to the environment. Do not breathe vapour.

**Response** : IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. IF IN EYES: Immediately call a POISON CENTER or physician.

**Storage** : Keep cool.

**Disposal** : Dispose of contents and container in accordance with all local, regional, national and international regulations.

**Hazardous ingredients** : xylene, Solvent naphtha (petroleum), light arom., Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol, Phenol, 4,4'-(1-methylethylidene)bis-, polymer with 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bis[oxirane], 2,4,6-tris(dimethylaminomethyl)phenol, ethylenediamine

**Supplemental label elements** : Not applicable.

**Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles** : Not applicable.

### 2.3 Other hazards

**Other hazards which do not result in classification** : No additional information.

## SECTION 3: Composition/information on ingredients

**3.2 Mixtures** : Mixture

### SECTION 3: Composition/information on ingredients

Product/ingredient name	Identifiers	%	<u>Classification</u> Regulation (EC) No. 1272/2008 [CLP]	Type
xylene	REACH #: 01-2119488216-32 EC: 215-535-7 CAS: 1330-20-7 Index: 601-022-00-9	≥10 - <25	Flam. Liq. 3, H226  Acute Tox. 4, H312 Acute Tox. 4, H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 STOT RE 2, H373 (central nervous system (CNS), kidneys and liver) Asp. Tox. 1, H304 Aquatic Chronic 3, H412	[1] [2]
Solvent naphtha (petroleum), light arom.	REACH #: 01-2119486773-24 EC: 265-199-0 CAS: 64742-95-6 Index: 649-356-00-4	≥10 - <15	Flam. Liq. 3, H226  STOT SE 3, H335 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 2, H411 Skin Irrit. 2, H315	[1]
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	EC: 500-006-8  CAS: 9003-36-5	≥7 - <10	Skin Sens. 1, H317 Aquatic Chronic 2, H411	[1]
1,2,4-trimethylbenzene	EC: 202-436-9 CAS: 95-63-6 Index: 601-043-00-3	≥6 - <10	Flam. Liq. 3, H226 Acute Tox. 4, H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 Aquatic Chronic 2, H411	[1] [2]
Phenol, 4,4'-(1-methylethylidene)bis-, polymer with 2,2'-(1-methylethylidene)bis(4,1-phenyleneoxymethylene)] bis[oxirane]	CAS: 25036-25-3	≥5 - <10	Skin Irrit. 2, H315	[1]
2,4,6-tris(dimethylaminomethyl)phenol	EC: 202-013-9  CAS: 90-72-2 Index: 603-069-00-0	≥3 - <5	Eye Irrit. 2, H319 Skin Sens. 1, H317 Acute Tox. 4, H302  Skin Corr. 1B, H314 Aquatic Chronic 3, H412	[1]
2-methylpropan-1-ol	REACH #: 01-2119484609-23 EC: 201-148-0 CAS: 78-83-1 Index: 603-108-00-1	≥3 - <4	Flam. Liq. 3, H226  Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335 STOT SE 3, H336	[1] [2]
ethylbenzene	REACH #: 01-2119489370-35 EC: 202-849-4 CAS: 100-41-4	≥1 - <3	Flam. Liq. 2, H225  Acute Tox. 4, H332 STOT RE 2, H373 (hearing organs)	[1] [2]

### SECTION 3: Composition/information on ingredients

mesitylene	Index: 601-023-00-4 EC: 203-604-4 CAS: 108-67-8 Index: 601-025-00-5	≥2 - <3	Asp. Tox. 1, H304 Aquatic Chronic 3, H412 Flam. Liq. 3, H226 Skin Irrit. 2, H315 STOT SE 3, H335 Asp. Tox. 1, H304 Aquatic Chronic 2, H411	[1] [2]
propylbenzene	EC: 203-132-9 CAS: 103-65-1 Index: 601-024-00-X	≥1.6 - <3	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 Asp. Tox. 1, H304 Aquatic Chronic 2, H411	[1]
cumene	EC: 202-704-5 CAS: 98-82-8 Index: 601-024-00-X	≥1 - <3	Flam. Liq. 3, H226 STOT SE 3, H335 Asp. Tox. 1, H304 Aquatic Chronic 2, H411	[1] [2]
ethylenediamine	REACH #: 01-2119480383-37 EC: 203-468-6 CAS: 107-15-3 Index: 612-006-00-6	≥0.3 - <1	Flam. Liq. 3, H226  Acute Tox. 4, H302 Acute Tox. 4, H312 Skin Corr. 1B, H314 Resp. Sens. 1, H334 Skin Sens. 1, H317  <b>See Section 16 for the full text of the H statements declared above.</b>	[1] [5]

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

#### Type

- [1] Substance classified with a health or environmental hazard  
 [2] Substance with a workplace exposure limit  
 [3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII  
 [4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII  
 [5] Substance of equivalent concern

Occupational exposure limits, if available, are listed in Section 8.

### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

- General** : In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and seek medical advice.
- Eye contact** : Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek immediate medical attention.
- Inhalation** : Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.
- Skin contact** : Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognised skin cleanser. Do NOT use solvents or thinners.
- Ingestion** : If swallowed, seek medical advice immediately and show the container or label. Keep person warm and at rest. Do NOT induce vomiting.

## SECTION 4: First aid measures

**Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

### 4.2 Most important symptoms and effects, both acute and delayed

There are no data available on the mixture itself. The mixture has been assessed following the conventional method of the CLP Regulation (EC) No 1272/2008 and is classified for toxicological properties accordingly. See Sections 2 and 3 for details.

Exposure to component solvent vapour concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness.

Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin.

If splashed in the eyes, the liquid may cause irritation and reversible damage.

Ingestion may cause nausea, diarrhea and vomiting.

This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Contains Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol, Phenol, 4,4'-(1-methylethylidene)bis-, polymer with 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bis[oxirane], ethylenediamine. May produce an allergic reaction.

### 4.3 Indication of any immediate medical attention and special treatment needed

**Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

**Specific treatments** : No specific treatment.

See toxicological information (Section 11)

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

**Suitable extinguishing media** : Recommended: alcohol-resistant foam, CO<sub>2</sub>, powders, water spray.

**Unsuitable extinguishing media** : Do not use water jet.

### 5.2 Special hazards arising from the substance or mixture

**Hazards from the substance or mixture** : Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard.

**Hazardous thermal decomposition products** : Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

### 5.3 Advice for firefighters

**Special protective actions for fire-fighters** : Cool closed containers exposed to fire with water. Do not release runoff from fire to drains or watercourses.

## SECTION 5: Firefighting measures

**Special protective equipment for fire-fighters** : Appropriate breathing apparatus may be required.

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

**For non-emergency personnel** : Exclude sources of ignition and ventilate the area. Avoid breathing vapour or mist. Refer to protective measures listed in sections 7 and 8.

**For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

**6.2 Environmental precautions** : Do not allow to enter drains or watercourses. If the product contaminates lakes, rivers, or sewers, inform the appropriate authorities in accordance with local regulations.

**6.3 Methods and material for containment and cleaning up** : Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Preferably clean with a detergent. Avoid using solvents.

**6.4 Reference to other sections** : See Section 1 for emergency contact information.  
See Section 8 for information on appropriate personal protective equipment.  
See Section 13 for additional waste treatment information.

## SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

**7.1 Precautions for safe handling** : Prevent the creation of flammable or explosive concentrations of vapours in air and avoid vapour concentrations higher than the occupational exposure limits. In addition, the product should only be used in areas from which all naked lights and other sources of ignition have been excluded. Electrical equipment should be protected to the appropriate standard. Mixture may charge electrostatically: always use earthing leads when transferring from one container to another. Operators should wear antistatic footwear and clothing and floors should be of the conducting type. Keep away from heat, sparks and flame. No sparking tools should be used. Avoid contact with skin and eyes. Avoid the inhalation of dust, particulates, spray or mist arising from the application of this mixture. Avoid inhalation of dust from sanding. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Put on appropriate personal protective equipment (see Section 8). Never use pressure to empty. Container is not a pressure vessel. Always keep in containers made from the same material as the original one. Comply with the health and safety at work laws. Do not allow to enter drains or watercourses.

**Information on fire and explosion protection**  
Vapours are heavier than air and may spread along floors. Vapours may form explosive mixtures with air.

When operators, whether spraying or not, have to work inside the spray booth, ventilation is unlikely to be sufficient to control particulates and solvent vapour in all cases. In such circumstances they should wear a compressed air-fed respirator

## SECTION 7: Handling and storage

during the spraying process and until such time as the particulates and solvent vapour concentration has fallen below the exposure limits.

### 7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations.

#### Notes on joint storage

Keep away from: oxidising agents, strong alkalis, strong acids.

#### Additional information on storage conditions

Observe label precautions. Store in a dry, cool and well-ventilated area. Keep away from heat and direct sunlight. Keep away from sources of ignition. No smoking. Prevent unauthorised access. Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

### 7.3 Specific end use(s)

**Recommendations** : No additional information.

**Industrial sector specific solutions** : No additional information.

## SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

### 8.1 Control parameters

#### Occupational exposure limits

Product/ingredient name	Exposure limit values
xylene	<b>TRGS900 AGW (Germany, 11/2015). Absorbed through skin.</b> TWA: 440 mg/m <sup>3</sup> 8 hours. PEAK: 880 mg/m <sup>3</sup> 15 minutes. TWA: 100 ppm 8 hours. PEAK: 200 ppm 15 minutes.
1,2,4-trimethylbenzene	<b>TRGS900 AGW (Germany, 11/2015).</b> TWA: 100 mg/m <sup>3</sup> 8 hours. PEAK: 200 mg/m <sup>3</sup> 15 minutes. TWA: 20 ppm 8 hours. PEAK: 40 ppm 15 minutes.
2-methylpropan-1-ol	<b>TRGS900 AGW (Germany, 11/2015).</b> TWA: 310 mg/m <sup>3</sup> 8 hours. PEAK: 310 mg/m <sup>3</sup> 15 minutes. TWA: 100 ppm 8 hours. PEAK: 100 ppm 15 minutes.
ethylbenzene	<b>TRGS900 AGW (Germany, 11/2015). Absorbed through skin.</b> TWA: 88 mg/m <sup>3</sup> 8 hours. PEAK: 176 mg/m <sup>3</sup> 15 minutes. TWA: 20 ppm 8 hours. PEAK: 40 ppm 15 minutes.
mesitylene	<b>TRGS900 AGW (Germany, 11/2015).</b> TWA: 100 mg/m <sup>3</sup> 8 hours. PEAK: 200 mg/m <sup>3</sup> 15 minutes. TWA: 20 ppm 8 hours. PEAK: 40 ppm 15 minutes.
cumene	<b>TRGS900 AGW (Germany, 11/2015). Absorbed through skin.</b> TWA: 50 mg/m <sup>3</sup> 8 hours. PEAK: 200 mg/m <sup>3</sup> 15 minutes. TWA: 10 ppm 8 hours.

## SECTION 8: Exposure controls/personal protection

PEAK: 40 ppm 15 minutes.

**Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

### DNELs/DMELs

No DNELs/DMELs available.

### PNECs

No PNECs available

## 8.2 Exposure controls

**Appropriate engineering controls** : Provide adequate ventilation. Where reasonably practicable, this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and solvent vapours below the OEL, suitable respiratory protection must be worn.

### Individual protection measures

**Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/face protection** : Use safety eyewear designed to protect against splash of liquids.

### Skin protection

#### Hand protection

There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals.

The breakthrough time must be greater than the end use time of the product.

The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed.

Gloves should be replaced regularly and if there is any sign of damage to the glove material.

Always ensure that gloves are free from defects and that they are stored and used correctly.

The performance or effectiveness of the glove may be reduced by physical/chemical damage and poor maintenance.

Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred.

**Gloves** : For prolonged or repeated handling, use the following type of gloves:

Recommended (> 8 hours (breakthrough time)): nitrile rubber

The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of use, as included in the user's risk assessment.



## SECTION 8: Exposure controls/personal protection

- Body protection** : Personnel should wear antistatic clothing made of natural fibres or of high-temperature-resistant synthetic fibres.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Wear a respirator conforming to EN140 with Type A/P2 filter or better.
- Environmental exposure controls** : Do not allow to enter drains or watercourses.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### Appearance

- Physical state** : Liquid.
- Colour** : Opaque.
- Odour** : Not available.
- Odour threshold** : Not applicable.
- pH** : Not applicable.
- Melting point/freezing point** : Not tested
- Initial boiling point and boiling range** : 93 - 200 °C
- Flash point** : Closed cup: 25°C
- Evaporation rate** : Not tested
- Flammability (solid, gas)** : Not applicable.
- Upper/lower flammability or explosive limits** : Greatest known range: Lower: 1.7% Upper: 10.9% (2-methylpropan-1-ol)
- Vapour pressure** : 6.7 mm Hg (0.8911 kPa) (Highest known value: xylene)
- Vapour density** : > 1 (Air = 1) (Calculation method)
- Density** : 0.95 g/cm<sup>3</sup>
- Solubility(ies)** : Not tested
- Partition coefficient: n-octanol/ water** : Not tested
- Auto-ignition temperature** : 280 - 470 °C (Lowest known value: Solvent naphtha (petroleum), light arom.)
- Decomposition temperature** : Not tested
- Viscosity** : Not available.
- Explosive properties** : Not tested
- Oxidising properties** : Not tested

### 9.2 Other information

No additional information.

## SECTION 10: Stability and reactivity

- 10.1 Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- 10.2 Chemical stability** : Stable under recommended storage and handling conditions (see Section 7).
- 10.3 Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- 10.4 Conditions to avoid** : When exposed to high temperatures may produce hazardous decomposition products.
- 10.5 Incompatible materials** : Keep away from the following materials to prevent strong exothermic reactions: oxidising agents, strong alkalis, strong acids.
- 10.6 Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

There are no data available on the mixture itself. The mixture has been assessed following the conventional method of the CLP Regulation (EC) No 1272/2008 and is classified for toxicological properties accordingly. See Sections 2 and 3 for details.

Exposure to component solvent vapour concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness.

Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin.

If splashed in the eyes, the liquid may cause irritation and reversible damage.

Ingestion may cause nausea, diarrhea and vomiting.

This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Contains Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol, Phenol, 4,4'-(1-methylethylidene)bis-, polymer with 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bis[oxirane], ethylenediamine. May produce an allergic reaction.

### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
1,2,4-trimethylbenzene	LC50 Inhalation Vapour	Rat	18000 mg/m <sup>3</sup>	4 hours
	LD50 Oral	Rat	5 g/kg	-
2,4,6-tris (dimethylaminomethyl) phenol	LD50 Dermal	Rat	1280 mg/kg	-
	LD50 Oral	Rat	1200 mg/kg	-
ethylbenzene	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	3500 mg/kg	-
mesitylene	LC50 Inhalation Vapour	Rat	24000 mg/m <sup>3</sup>	4 hours
	LD50 Oral	Rat	5000 mg/kg	-
cumene	LC50 Inhalation Vapour	Rat	39000 mg/m <sup>3</sup>	4 hours
	LD50 Oral	Rat	1400 mg/kg	-

**Conclusion/Summary** : Not available.

## SECTION 11: Toxicological information

### Acute toxicity estimates

Route	ATE value
Oral	28915,7 mg/kg
Dermal	8123,6 mg/kg
Inhalation (vapours)	54,33 mg/l

### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
2,4,6-tris (dimethylaminomethyl) phenol	Eyes - Severe irritant	Rabbit	-	24 hours 50 Micrograms	-
	Skin - Mild irritant	Rat	-	0.025 Milliliters	-
	Skin - Severe irritant	Rat	-	0.25 Milliliters	-
	Skin - Severe irritant	Rabbit	-	24 hours 2 milligrams	-
cumene	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Eyes - Mild irritant	Rabbit	-	86 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 10 milligrams	-
ethylenediamine	Skin - Moderate irritant	Rabbit	-	24 hours 100 milligrams	-
	Eyes - Severe irritant	Rabbit	-	24 hours 750 Micrograms	-
	Skin - Severe irritant	Rabbit	-	24 hours 10 milligrams	-

**Conclusion/Summary** : Not available.

### Sensitisation

**Conclusion/Summary** : Not available.

### Mutagenicity

**Conclusion/Summary** : Not available.

### Carcinogenicity

**Conclusion/Summary** : Not available.

### Reproductive toxicity

**Conclusion/Summary** : Not available.

### Teratogenicity

**Conclusion/Summary** : Not available.

### Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
xylene	Category 3	Not applicable.	Respiratory tract irritation
Solvent naphtha (petroleum), light arom.	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects
1,2,4-trimethylbenzene	Category 3	Not applicable.	Respiratory tract irritation
2-methylpropan-1-ol	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects

## SECTION 11: Toxicological information

mesitylene	Category 3	Not applicable.	Respiratory tract irritation
propylbenzene	Category 3	Not applicable.	Respiratory tract irritation
cumene	Category 3	Not applicable.	Respiratory tract irritation

### Specific target organ toxicity (repeated exposure)

Product/ingredient name	Category	Route of exposure	Target organs
xylene	Category 2	Not determined	central nervous system (CNS), kidneys and liver
ethylbenzene	Category 2	Not determined	hearing organs

### Aspiration hazard

Product/ingredient name	Result
xylene	ASPIRATION HAZARD - Category 1
Solvent naphtha (petroleum), light arom.	ASPIRATION HAZARD - Category 1
ethylbenzene	ASPIRATION HAZARD - Category 1
mesitylene	ASPIRATION HAZARD - Category 1
propylbenzene	ASPIRATION HAZARD - Category 1
cumene	ASPIRATION HAZARD - Category 1

**Other information** : No additional information.

## SECTION 12: Ecological information

### 12.1 Toxicity

There are no data available on the mixture itself.  
Do not allow to enter drains or watercourses.

Product/ingredient name	Result	Species	Exposure
1,2,4-trimethylbenzene	Acute LC50 4910 µg/l Marine water	Crustaceans - Elasmopus pectinicus - Adult	48 hours
	Acute LC50 7720 to 8280 µg/l Fresh water	Fish - Pimephales promelas	96 hours
mesitylene	Acute LC50 13000 µg/l Marine water	Crustaceans - Cancer magister - Zoea	48 hours
	Acute LC50 12520 to 15050 µg/l Fresh water	Fish - Carassius auratus	96 hours
propylbenzene	Chronic NOEC 400 µg/l Fresh water	Daphnia - Daphnia magna	21 days
	Acute EC50 1.8 mg/l Fresh water	Algae - Pseudokirchneriella subcapitata	72 hours
cumene	Acute LC50 1.55 mg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours
	Acute EC50 2600 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	72 hours
	Acute EC50 7400 to 11290 µg/l Fresh water	Crustaceans - Artemia sp. - Nauplii	48 hours
	Acute EC50 10600 µg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 2700 µg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours

**Conclusion/Summary** : Not available.

### 12.2 Persistence and degradability

## SECTION 12: Ecological information

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
mesitylene	-	-	Readily

### 12.3 Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
xylene	3,12	8.1 to 25.9	low
Solvent naphtha (petroleum), light arom.	-	10 to 2500	high
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	2,7	-	low
1,2,4-trimethylbenzene	3,63	243	low
2,4,6-tris (dimethylaminomethyl) phenol	0,219	-	low
2-methylpropan-1-ol	1	-	low
ethylbenzene	3,6	-	low
mesitylene	3,42	161	low
propylbenzene	3,69	-	low
cumene	3,55	35,48	low
ethylenediamine	-7,02	-	low

### 12.4 Mobility in soil

**Soil/water partition coefficient (K<sub>oc</sub>)** : Not available.

**Mobility** : Not available.

### 12.5 Results of PBT and vPvB assessment

**PBT** : Not applicable.

**vPvB** : Not applicable.

**12.6 Other adverse effects** : No known significant effects or critical hazards.

## SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

### 13.1 Waste treatment methods

#### Product

**Methods of disposal** : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

**Hazardous waste** : Yes.

## SECTION 13: Disposal considerations

- Disposal considerations** : Do not allow to enter drains or watercourses.  
 Dispose of waste according to applicable legislation.  
 If this product is mixed with other wastes, the original waste product code may no longer apply and the appropriate code should be assigned.  
 For further information, contact your local waste authority.

Waste code	Waste designation
08 01 11*	waste paint and varnish containing organic solvents or other dangerous substances

### Packaging





- Methods of disposal** : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

- Disposal considerations** : Using information provided in this safety data sheet, advice should be obtained from the relevant waste authority on the classification of empty containers.  
 Empty containers must be scrapped or reconditioned.  
 Dispose of containers contaminated by the product in accordance with local or national legal provisions.

Type of packaging	European waste catalogue (EWC)
CEPE Paint Guidelines	15 01 10* packaging containing residues of or contaminated by dangerous substances

- Special precautions** : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapour from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

## SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
<b>14.1 UN number</b>	UN1866	UN1866	UN1866	UN1866
<b>14.2 UN proper shipping name</b>	Resin solution, flammable	Resin solution, flammable	Resin solution, flammable	Resin solution, flammable
<b>14.3 Transport hazard class(es)</b>	3 	3 	3 	3 
<b>14.4 Packing group</b>	III	III	III	III
<b>14.5 Environmental hazards</b>	Yes.	Yes.	Yes.	No.

## SECTION 14: Transport information

<p><b>Additional information</b></p>	<p>The environmentally hazardous substance mark is not required when transported in sizes of ≤5 L or ≤5 kg.</p> <p><b>Special provisions</b> 640 (E)</p> <p><b>Viscous substance exemption</b> This class 3 material can be considered non hazardous in packagings up to 450 L. Exempted according to 2.2.3.1.5 (Viscous substance exemption)</p> <p><b>Tunnel code</b> (D/E)</p>	<p>The environmentally hazardous substance mark is not required when transported in sizes of ≤5 L or ≤5 kg.</p>	<p>The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.</p> <p><b>Viscous substance exemption</b> This class 3 material can be considered non hazardous in packagings up to 30 L. Exempted according to 2.3.2.5 (Viscous substance exemption)</p>	<p>The environmentally hazardous substance mark may appear if required by other transportation regulations.</p>
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**14.6 Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** : Not applicable.

## SECTION 15: Regulatory information

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

**EU Regulation (EC) No. 1907/2006 (REACH)**

**Annex XIV - List of substances subject to authorisation**

**Annex XIV**

None of the components are listed.

**Substances of very high concern**

Ingredient name	Intrinsic property	Status	Reference number	Date of revision
ethylenediamine	Substance of equivalent concern for human health	Candidate	ED 61/2018	2018-06-27

**Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles** : Not applicable.

**Other EU regulations**

## SECTION 15: Regulatory information

**VOC for Ready-for-Use Mixture** : Not available.

**Europe inventory** : Not determined.

### Seveso Directive

This product is controlled under the Seveso Directive.

### Danger criteria

#### Category

P5c: Flammable liquids 2 and 3 not falling under P5a or P5b  
 E2: Hazardous to the aquatic environment - Chronic 2  
 C6: Flammable (R10)

### National regulations

**Industrial use** : The information contained in this safety data sheet does not constitute the user's own assessment of workplace risks, as required by other health and safety legislation. The provisions of the national health and safety at work regulations apply to the use of this product at work.

**Storage class (TRGS 510)** : 3

**Hazardous incident ordinance** : Applicable. Category: 6 Flammable.

**Hazard class for water** : 2 Appendix No. 4

**Technical instruction on air quality control** : TA-Luft Number 5.2.5: 52,5%  
 TA-Luft Class I - Number 5.2.5: 3,2%

**15.2 Chemical Safety Assessment** : No Chemical Safety Assessment has been carried out.

## SECTION 16: Other information

**Abbreviations and acronyms** : ATE = Acute Toxicity Estimate  
 CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]  
 DMEL = Derived Minimal Effect Level  
 DNEL = Derived No Effect Level  
 EUH statement = CLP-specific Hazard statement  
 PBT = Persistent, Bioaccumulative and Toxic  
 PNEC = Predicted No Effect Concentration  
 RRN = REACH Registration Number  
 vPvB = Very Persistent and Very Bioaccumulative

<b>Full text of abbreviated H statements</b>	: H225 Highly flammable liquid and vapour. H226 Flammable liquid and vapour. H302 Harmful if swallowed. H302 (oral) Harmful if swallowed. H304 May be fatal if swallowed and enters airways. H312 (dermal) Harmful in contact with skin. H314 Causes severe skin burns and eye damage. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H318 Causes serious eye damage. H319 Causes serious eye irritation. H332 (inhalation) Harmful if inhaled. H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled. H335 May cause respiratory irritation. H336 May cause drowsiness or dizziness.
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## SECTION 16: Other information

	H373 H373 (central nervous system (CNS), kidneys and liver) H373 (hearing organs) H411 H412	May cause damage to organs through prolonged or repeated exposure. May cause damage to organs through prolonged or repeated exposure. (central nervous system (CNS), kidneys and liver) May cause damage to organs through prolonged or repeated exposure. (hearing organs) Toxic to aquatic life with long lasting effects. Harmful to aquatic life with long lasting effects.
<b>Full text of classifications [CLP/GHS]</b>	Acute Tox. 4, H302 Acute Tox. 4, H312 Acute Tox. 4, H332 Aquatic Chronic 2, H411 Aquatic Chronic 3, H412 Asp. Tox. 1, H304 Eye Dam. 1, H318  Eye Irrit. 2, H319  Flam. Liq. 2, H225 Flam. Liq. 3, H226 Resp. Sens. 1, H334 Skin Corr. 1B, H314 Skin Irrit. 2, H315 Skin Sens. 1, H317 STOT RE 2, H373  STOT RE 2, H373 (central nervous system (CNS), kidneys and liver) STOT RE 2, H373 (hearing organs) STOT SE 3, H335  STOT SE 3, H336	ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (dermal) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 LONG-TERM AQUATIC HAZARD - Category 2 LONG-TERM AQUATIC HAZARD - Category 3 ASPIRATION HAZARD - Category 1 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2 FLAMMABLE LIQUIDS - Category 2 FLAMMABLE LIQUIDS - Category 3 RESPIRATORY SENSITIZATION - Category 1 SKIN CORROSION/IRRITATION - Category 1B SKIN CORROSION/IRRITATION - Category 2 SKIN SENSITIZATION - Category 1 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (central nervous system (CNS), kidneys and liver) - Category 2 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (hearing organs) - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3

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### Notice to reader

The information in this Safety Data Sheet is based on the present state of knowledge and current legislation. It provides guidance on health, safety and environmental aspects of the product and should not be construed as any guarantee of technical performance or suitability for particular applications. The product should not be used for purposes other than those shown in Section 1 without first referring to the supplier and obtaining written handling instructions. As the specific conditions of use of the product are outside the supplier's control, the user is responsible for ensuring that the requirements of relevant legislation are complied with. The information contained in this safety data sheet does not constitute the user's own assessment of workplace risks, as required by other health and safety legislation.