



SAFETY DATA SHEET

9103 (Activator 9170/9180 High Build Epoxy Primers)

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

1.1 Product identifier

Product name : 9103 (Activator 9170/9180 High Build Epoxy Primers)
Product description : Hardener.
Product type : Liquid.
UFI : 5800-N0M7-A00V-T9U1

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

Identified uses	
Industrial use Professional use	
Uses advised against	Reason
Consumer use	Product is not intended for consumer use.

1.3 Details of the supplier of the safety data sheet

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Fax no.: +32 (0) 13 460 201

Tor Coatings Limited
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Fax no.: +44 (0) 191 4920125
enquiries@tor-coatings.com

e-mail address of person responsible for this SDS : rpmeurohas@rustoleum.eu

1.4 Emergency telephone number

National advisory body/Poison Centre

Supplier

Telephone number United Kingdom: : +44 870 8200418 / +44 2038073798
Great Britain

Hours of operation : 24 / 7

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

STOT SE 3, H335

STOT RE 2, H373

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard pictograms :



Signal word : Danger

Hazard statements : H226 - Flammable liquid and vapour.
H315 - Causes skin irritation.
H318 - Causes serious eye damage.
H335 - May cause respiratory irritation.
H373 - May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

General : Not applicable.

Prevention : P280 - Wear protective gloves. Wear eye or face protection.
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P271 - Use only outdoors or in a well-ventilated area.
P260 - Do not breathe vapour.

Response : P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
P305 + P351 + P338, P310 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.

Storage : P403 + P235 - Store in a well-ventilated place. Keep cool.

Disposal : P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazardous ingredients : xylene (mixture of isomers)
polyaminoamide adduct
Reaction mass of ethylbenzene and xylene
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine
butan-1-ol

Supplemental label elements : Not applicable.

Supplemental label elements : Detergents - Regulation (EC) No 907/2006 : Not applicable.

SECTION 2: Hazards identification

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

Special packaging requirements

Containers to be fitted with child-resistant fastenings : Not applicable.

Tactile warning of danger : Not applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

Other hazards which do not result in classification : None known.

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

United Kingdom: Great Britain

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Type
xylene (mixture of isomeres)	REACH #: 01-2119488216-32 EC: 215-535-7 CAS: 1330-20-7	≥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 Asp. Tox. 1, H304 Aquatic Chronic 3, H412	ATE [Dermal] = 1100 mg/kg ATE [Inhalation (vapours)] = 11 mg/l	[1] [2]
polyaminoamide adduct	CAS: -	≤10	Eye Dam. 1, H318	-	[1]
Reaction mass of ethylbenzene and xylene	REACH #: 01-2119488216-32	≤10	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 Asp. Tox. 1, H304	ATE [Dermal] = 1100 mg/kg ATE [Inhalation (vapours)] = 11 mg/l	[1] [2]
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine	EC: 500-191-5 CAS: 68082-29-1	≤10	Eye Dam. 1, H318	-	[1]
butan-1-ol	REACH #: 01-2119484630-38 EC: 200-751-6 CAS: 71-36-3 Index: 603-004-00-6	≤5	Flam. Liq. 3, H226 Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335	ATE [Oral] = 790 mg/kg	[1] [2]

SECTION 3: Composition/information on ingredients

1-methoxy-2-propanol	REACH #: 01-2119457435-35 EC: 203-539-1 CAS: 107-98-2 Index: 603-064-00-3	≤5	STOT SE 3, H336 Flam. Liq. 3, H226 STOT SE 3, H336 See Section 16 for the full text of the H statements declared above.	-	[1] [2]
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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.

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

Type

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

List numbers have no legal significance.

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

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact

: Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.

Inhalation

: Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. 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.

Skin contact

: Get medical attention immediately. Call a poison center or physician. Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion

: Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

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

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain
watering
redness
- Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing
- Skin contact** : Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur
- Ingestion** : Adverse symptoms may include the following:
stomach pains

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.

SECTION 5: Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media** : Use dry chemical, CO₂, water spray (fog) or foam.
- Unsuitable extinguishing media** : Do not use water jet.

5.2 Special hazards arising from the substance or mixture

- Hazards from the substance or mixture** : Flammable liquid and vapour. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapour/gas is heavier than air and will spread along the ground. Vapours may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back.
- Hazardous combustion products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides
sulfur oxides
metal oxide/oxides

5.3 Advice for firefighters

- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

SECTION 5: Firefighting measures

- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
- Additional information** : No unusual hazard if involved in a fire.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- 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** : Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and material for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. 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. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product.

- 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.

7.1 Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not breathe vapour or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by earthing and bonding containers and equipment before transferring material. Empty containers retain

SECTION 7: Handling and storage

product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene

: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Do not store above the following temperature: 35°C (95°F). Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidising materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Seveso Directive - Reporting thresholds

Danger criteria

Category	Notification and MAPP threshold	Safety report threshold
P5c	5000 tonne	50000 tonne

7.3 Specific end use(s)

Recommendations : Not available.

Industrial sector specific solutions : Not available.

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 / Biological exposure indices

United Kingdom: Great Britain

Product/ingredient name	Exposure limit values
xylene (mixture of isomeres)	EH40/2005 WELs (United Kingdom (UK), 12/2011). Absorbed through skin. STEL: 441 mg/m ³ 15 minutes. STEL: 100 ppm 15 minutes. TWA: 220 mg/m ³ 8 hours. TWA: 50 ppm 8 hours.
Reaction mass of ethylbenzene and xylene	EH40/2005 WELs (United Kingdom (UK), 1/2020). [xylene, o-,m-, p- or mixed isomers] Absorbed through skin. STEL: 441 mg/m ³ 15 minutes. STEL: 100 ppm 15 minutes. TWA: 220 mg/m ³ 8 hours. TWA: 50 ppm 8 hours.
butan-1-ol	EH40/2005 WELs (United Kingdom (UK), 1/2020). Absorbed through skin. STEL: 154 mg/m ³ 15 minutes. STEL: 50 ppm 15 minutes.
1-methoxy-2-propanol	EH40/2005 WELs (United Kingdom (UK), 1/2020). Absorbed through skin. STEL: 560 mg/m ³ 15 minutes. STEL: 150 ppm 15 minutes. TWA: 375 mg/m ³ 8 hours.

SECTION 8: Exposure controls/personal protection

TWA: 100 ppm 8 hours.

Recommended monitoring procedures : 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

Product/ingredient name	Type	Exposure	Value	Population	Effects
xylene (mixture of isomeres)	DNEL	Short term Inhalation	289 mg/m ³	Workers	Local
	DNEL	Short term Inhalation	289 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	77 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	180 mg/m ³	Workers	Systemic
	DNEL	Short term Inhalation	174 mg/m ³	General population [Consumers]	Local
	DNEL	Short term Inhalation	174 mg/m ³	General population [Consumers]	Systemic
	DNEL	Long term Inhalation	14,8 mg/m ³	General population [Consumers]	Systemic
Reaction mass of ethylbenzene and xylene	DNEL	Long term Dermal	108 mg/m ³	General population [Consumers]	Systemic
	DNEL	Short term Inhalation	442 mg/m ³	Workers	Local
	DNEL	Short term Inhalation	442 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	221 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	221 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	212 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Inhalation	260 mg/m ³	General population	Local
	DNEL	Short term Inhalation	260 mg/m ³	General population	Systemic
	DNEL	Long term Inhalation	65,3 mg/m ³	General population	Local
	DNEL	Long term Inhalation	65,3 mg/m ³	General population	Systemic
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine	DNEL	Long term Dermal	125 mg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	12,5 mg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	0,56 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	0,56 mg/	General	Systemic

SECTION 8: Exposure controls/personal protection

butan-1-ol	DNEL	Long term Inhalation	kg bw/day 0,97 mg/m ³	population General population	Systemic
	DNEL	Long term Dermal	1,1 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	3,9 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	310 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	55 mg/m ³	General population [Consumers]	Local
	DNEL	Long term Oral	3,125 mg/ kg bw/day	General population [Consumers]	Systemic
1-methoxy-2-propanol	DNEL	Long term Oral	3,125 mg/ kg bw/day	General population [Consumers]	Systemic
	DNEL	Short term Inhalation	553,5 mg/ m ³	Workers	Local
	DNEL	Long term Inhalation	369 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	50,6 mg/ kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	43,9 mg/m ³	General population [Consumers]	Systemic
	DNEL	Long term Dermal	18,1 mg/ kg bw/day	General population [Consumers]	Systemic
	DNEL	Long term Oral	3,3 mg/kg bw/day	General population [Consumers]	Systemic
	DNEL	Long term Oral	3,3 mg/kg bw/day	General population [Consumers]	Systemic

PNECs

Product/ingredient name	Compartment Detail	Value	Method Detail
xylene (mixture of isomeres)	Fresh water	0,327 mg/l	-
	Marine water	0,327 mg/l	-
	Fresh water sediment	12,46 mg/kg	-
	Marine water sediment	12,46 mg/kg	-
	Soil	2,31 mg/kg	-
	Sewage Treatment Plant	6,58 mg/l	-
	Reaction mass of ethylbenzene and xylene	Fresh water	0,327 mg/l
Marine water		0,327 mg/l	-
Fresh water sediment		12,46 mg/kg	-
Marine water sediment		12,46 mg/kg	-
Soil		2,31 mg/kg	-
Sewage Treatment Plant		6,58 mg/l	-
butan-1-ol		Fresh water	0,082 mg/l
	Marine	0,0082 mg/l	-
	Fresh water sediment	0,178 mg/kg	-
	Marine water sediment	0,0178 mg/kg	-
	Soil	0,015 mg/kg	-
	Sewage Treatment Plant	2476 mg/l	-
	1-methoxy-2-propanol	Fresh water	10 mg/l
Fresh water sediment		41,6 mg/l	-
Marine water sediment		4,17 mg/l	-
Soil		2,47 mg/l	-
Sewage Treatment Plant		100 mg/l	-

SECTION 8: Exposure controls/personal protection

Plant

8.2 Exposure controls

- Appropriate engineering controls** : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

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. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. Use eye protection according to EN 166. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

Skin 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.

- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. > 8 hours (breakthrough time): polyvinyl alcohol (PVA) or polyethylene (PE)

The recommendation for the type or types of glove to use when handling this product is based on information from the following source: EN374. 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.

- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves. Refer to European Standard EN 1149 for further information on material and design requirements and test methods. Recommended: 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.

SECTION 8: Exposure controls/personal protection

- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use. Recommended: organic vapour filter (Type A) (EN 140) .
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties

- Physical state** : Liquid.
- Colour** : Grey.
- Odour** : Solvent-like
- Odour threshold** : Not available.
- Melting point/freezing point** : <-40°C
- Initial boiling point and boiling range** : 119°C (246,2°F) [Literature]
- Flammability (solid, gas)** : Flammable in the presence of the following materials or conditions: open flames, sparks and static discharge and heat.
Slightly flammable in the presence of the following materials or conditions: shocks and mechanical impacts.
Vapour may travel a considerable distance to source of ignition and flash back.
- Lower and upper explosion limit** : Lower: 2%
Upper: 12%
- Flash point** : Closed cup: 25°C (77°F) [Literature]
- Auto-ignition temperature** : >450°C (>842°F) [Literature]
- Decomposition temperature** : Not available.
- pH** : Not applicable.
- pH : Justification** : Product is non-soluble (in water).
- Viscosity** : Dynamic (room temperature): >3000 mPa·s [ISO EN BS DIN 3219]
Kinematic (room temperature): >1863 mm²/s [calculated.]
Kinematic (40°C): >20,5 mm²/s [calculated.]
- Solubility(ies)** :

Media	Result
acetone	Partially soluble

- Solubility in water** : Not available.
- Partition coefficient: n-octanol/ water** : Not applicable.
- Vapour pressure** : 0,6 kPa (4,5 mm Hg) [calculated.]
- Evaporation rate** : 0,7 (Butyl acetate. = 1)
- Relative density** : Not available.
- Density** : 1,57 to 1,63 g/cm³ [20°C (68°F)] [DIN 53217]
- Vapour density** : >1 [Air = 1]
- Explosive properties** : Slightly explosive in the presence of the following materials or conditions: open flames, sparks and static discharge and heat.
No unusual hazard if involved in a fire.
- Oxidising properties** : Not available.

SECTION 9: Physical and chemical properties

Particle characteristics

Median particle size : Not applicable.

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 : The product is stable.

10.3 Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid : Avoid all possible sources of ignition (spark or flame). Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapour to accumulate in low or confined areas.

10.5 Incompatible materials : Reactive or incompatible with the following materials:
oxidising materials

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 hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
xylene (mixture of isomeres)	LD50 Dermal	Rabbit	4,2 g/kg	-
	LD50 Dermal	Rabbit	1100 mg/kg	-
	LD50 Dermal	Rabbit	1700 mg/kg	-
	LD50 Oral	Rat	4300 mg/kg	-
	TDL ₀ Dermal	Rabbit	4300 mg/kg	-
	LC50 Inhalation Vapour	Rat	27124 mg/m ³	4 hours
Reaction mass of ethylbenzene and xylene butan-1-ol	LC50 Inhalation Vapour	Rat	25 mg/l	4 hours
	LC50 Inhalation Vapour	Rat	24000 mg/m ³	4 hours
	LC50 Inhalation Vapour	Rat	8000 ppm	4 hours
	LD50 Dermal	Rabbit	3400 mg/kg	-
1-methoxy-2-propanol	LD50 Oral	Rat	0,79 g/kg	-
	LC50 Inhalation Vapour	Rat	30,02 mg/l	4 hours
	LD50 Dermal	Rabbit	13 g/kg	-
	LD50 Oral	Mouse	11700 mg/kg	-
	LD50 Oral	Rat - Male, Female	4016 mg/kg	-

Conclusion/Summary : Based on available data, the classification criteria are not met.

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
xylene (mixture of isomeres)	4300	1100	N/A	11	N/A
Reaction mass of ethylbenzene and xylene butan-1-ol	N/A	1100	N/A	11	N/A
	790	3400	N/A	24	N/A

Irritation/Corrosion

SECTION 11: Toxicological information

Product/ingredient name	Result	Species	Score	Exposure	Observation
xylene (mixture of isomeres)	Eyes - Mild irritant	Rabbit	-	87 milligrams	-
	Eyes - Moderate irritant	Rabbit	-	-	-
	Eyes - Severe irritant	Rabbit	-	24 hours 5 milligrams	-
	Skin - Mild irritant	Rat	-	8 hours 60 microliters	-
	Skin - Moderate irritant	Rabbit	-	100 Percent	-
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine	Skin - Moderate irritant	Rabbit	-	24 hours 500 milligrams	-
	Eyes - Severe irritant	Rabbit	-	-	-
butan-1-ol	Skin - Mild irritant	Human	-	-	-
	Eyes - Severe irritant	Rabbit	-	0.005 Milliliters	-
	Eyes - Severe irritant	Rabbit	-	24 hours 2 milligrams	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 milligrams	-

Conclusion/Summary

- Skin** : Causes skin irritation.
- Eyes** : Causes serious eye damage.
- Respiratory** : May cause respiratory irritation.
May cause damage to organs through prolonged or repeated exposure.

Sensitisation

Product/ingredient name	Route of exposure	Species	Result
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine	skin	Mouse	Sensitising

Conclusion/Summary

- Skin** : Based on available data, the classification criteria are not met.
- Respiratory** : Based on available data, the classification criteria are not met.

Mutagenicity

Product/ingredient name	Test	Experiment	Result
butan-1-ol	OECD 471 Bacterial Reverse Mutation Test	Subject: Bacteria	Negative

- Conclusion/Summary** : Based on available data, the classification criteria are not met.

Carcinogenicity

- Conclusion/Summary** : Based on available data, the classification criteria are not met.

Reproductive toxicity

- Conclusion/Summary** : Based on available data, the classification criteria are not met.

Teratogenicity

- Conclusion/Summary** : Based on available data, the classification criteria are not met.

Specific target organ toxicity (single exposure)

SECTION 11: Toxicological information

Product/ingredient name	Category	Route of exposure	Target organs
xylene (mixture of isomeres)	Category 3	-	Respiratory tract irritation
Reaction mass of ethylbenzene and xylene	Category 3	-	Respiratory tract irritation
butan-1-ol	Category 3	-	Respiratory tract irritation
1-methoxy-2-propanol	Category 3 Category 3	-	Narcotic effects Narcotic effects

Specific target organ toxicity (repeated exposure)

Product/ingredient name	Category	Route of exposure	Target organs
xylene (mixture of isomeres)	Category 2	-	-
Reaction mass of ethylbenzene and xylene	Category 2	-	-

Aspiration hazard

Product/ingredient name	Result
xylene (mixture of isomeres)	ASPIRATION HAZARD - Category 1
Reaction mass of ethylbenzene and xylene	ASPIRATION HAZARD - Category 1

Information on likely routes of exposure : Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.

Potential acute health effects

- Eye contact** : Causes serious eye damage.
- Inhalation** : May cause respiratory irritation.
- Skin contact** : Causes skin irritation.
- Ingestion** : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : Adverse symptoms may include the following:
pain
watering
redness
- Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing
- Skin contact** : Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur
- Ingestion** : Adverse symptoms may include the following:
stomach pains

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Short term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

Long term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

SECTION 11: Toxicological information**Potential chronic health effects**

Not available.

- Conclusion/Summary** : Based on available data, the classification criteria are not met.
- General** : May cause damage to organs through prolonged or repeated exposure.
- Carcinogenicity** : No known significant effects or critical hazards.
- Mutagenicity** : No known significant effects or critical hazards.
- Reproductive toxicity** : No known significant effects or critical hazards.

11.2 Information on other hazards**11.2.1 Endocrine disrupting properties**

Not available.

11.2.2 Other information

Not available.

SECTION 12: Ecological information**12.1 Toxicity**

Product/ingredient name	Result	Species	Exposure
Reaction mass of ethylbenzene and xylene	NOEC 0,44 mg/l	Algae	72 hours
butan-1-ol	NOEC 0,96 mg/l	Daphnia spec.	7 days
	NOEC 1,3 mg/l	Fish	56 days
1-methoxy-2-propanol	Acute EC50 2072 to 1983000 µg/l Fresh water	Daphnia spec. - <i>Daphnia magna</i>	48 hours
	Acute LC50 1940000 µg/l Fresh water	Fish - <i>Pimephales promelas</i> - Juvenile (Fledgling, Hatchling, Weanling)	96 hours
1-methoxy-2-propanol	Acute EC50 >1000 mg/l	Algae - <i>Selenastrum capricornutum</i>	7 days
	Acute EC50 23300 mg/l	Daphnia spec.	96 hours
	Acute LC50 6812 mg/l Fresh water	Fish	96 hours

Conclusion/Summary : Based on available data, the classification criteria are not met.

12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
xylene (mixture of isomeres)	-	90 % - Readily - 5 days	-	-
	-	92 % - Readily - 20 days	-	-
butan-1-ol	OECD 301B	>70 % - Readily - 19 days	-	-
	OECD 301E	96 % - Readily - 28 days	-	-
	OECD 301C	88 to 92 % - Readily - 28 days	-	-
	-	>90 % - Readily - 5 days	1,95 gO ₂ /g ThOD	-

Conclusion/Summary : This product has not been tested for biodegradation.
Based on available data, the classification criteria are not met.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
xylene (mixture of isomeres)	-	-	Readily
butan-1-ol	-	-	Readily
1-methoxy-2-propanol	Fresh water <28 days, 5 to 25°C	-	Readily

12.3 Bioaccumulative potential

SECTION 12: Ecological information

Product/ingredient name	LogP _{ow}	BCF	Potential
xylene (mixture of isomeres)	3,12	8.1 to 25.9	Low
butan-1-ol	1	-	Low
1-methoxy-2-propanol	<1	<100	Low

12.4 Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Mobility : This product is not likely to volatilise rapidly into the air because of its low vapour pressure.

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Endocrine disrupting properties

Not available.

12.7 Other adverse effects

No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance.

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.

European waste catalogue (EWC)

Waste code	Waste designation
08 01 11*	waste paint and varnish containing organic solvents or other hazardous 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
14.1 UN number or ID number	UN1263	UN1263	UN1263	UN1263
14.2 UN proper shipping name	Paint	Paint	Paint	Paint
14.3 Transport hazard class(es)	3 	3 	3 	3 
14.4 Packing group	III	III	III	III
14.5 Environmental hazards	No.	No.	No.	No.
Additional information	Limited quantity 5L Special provisions 163, 367, 650 Viscous liquid exception This class 3 viscous liquid is not subject to regulation in packagings up to 450 L according to 2.2.3.1.5.1. Tunnel code (D/E)	Special provisions 163, 367, 650 Viscous liquid exception This class 3 viscous liquid is not subject to regulation in packagings up to 450 L according to 2.2.3.1.5.1. Remarks : ≤ 5L: Limited Quantity	Emergency schedules F-E +S-E Special provisions 163, 223, 367, 955 Viscous liquid exception This class 3 viscous liquid is not subject to regulation in packagings up to 450 L according to 2.3.2.5. Remarks : ≤ 5L: Limited Quantity - IMDG 3.4	Quantity limitation Passenger and Cargo Aircraft: 60 L. Packaging instructions: 355. Cargo Aircraft Only: 220 L. Packaging instructions: 366. Limited Quantities - Passenger Aircraft: 10 L. Packaging instructions: Y344. Special provisions A3, A72, A192

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 IMO instruments : Not available.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

No listed substance

Labelling

Other EU regulations

VOC :

VOC for Ready-for-Use Mixture : 2004/42/EC - IIA/j: 500g/l (2010). ≤ 493g/l VOC.

SECTION 15: Regulatory information

**Industrial emissions
(integrated pollution
prevention and control) -
Air** : Not listed

**Industrial emissions
(integrated pollution
prevention and control) -
Water** : Not listed

Explosive precursors : Not applicable.

United Kingdom: Great Britain

UK (GB)/REACH

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Ozone depleting substances

Not listed.

Prior Informed Consent (PIC)

Not listed.

Persistent Organic Pollutants

Not listed.

Aerosol dispensers :

Seveso Directive

This product is controlled under the Seveso Directive.

Danger criteria

Category
P5c

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

International regulations

Stockholm Convention on Persistent Organic Pollutants

List name	Ingredient name	Status
Not listed.		

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

List name	Ingredient name	Status
Not listed.		

CN code : 3208 90 91 00

Inventory list

SECTION 15: Regulatory information

Australia	: At least one component is not listed.
Canada	: At least one component is not listed.
China	: Not determined.
Eurasian Economic Union	: Russian Federation inventory: Not determined.
Japan	: Japan inventory (CSCL): Not determined. Japan inventory (ISHL): Not determined.
New Zealand	: At least one component is not listed.
Philippines	: At least one component is not listed.
Republic of Korea	: At least one component is not listed.
Taiwan	: At least one component is not listed.
Thailand	: Not determined.
Turkey	: Not determined.
United States	: Not determined.
Viet Nam	: Not determined.

15.2 Chemical safety assessment : This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information

✔ Indicates information that has changed from previously issued version.

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
- N/A = Not available
- PBT = Persistent, Bioaccumulative and Toxic
- PNEC = Predicted No Effect Concentration
- RRN = REACH Registration Number
- SGG = Segregation Group
- vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Flam. Liq. 3, H226	Expert judgment
Skin Irrit. 2, H315	Expert judgment
Eye Dam. 1, H318	Expert judgment
STOT SE 3, H335	Expert judgment
STOT RE 2, H373	Expert judgment

Full text of abbreviated H statements

United Kingdom: Great Britain

Full text of abbreviated H statements :	H226	Flammable liquid and vapour.
	H302	Harmful if swallowed.
	H304	May be fatal if swallowed and enters airways.
	H312	Harmful in contact with skin.
	H315	Causes skin irritation.
	H318	Causes serious eye damage.
	H319	Causes serious eye irritation.
	H332	Harmful if inhaled.
	H335	May cause respiratory irritation.
	H336	May cause drowsiness or dizziness.
	H373	May cause damage to organs through prolonged or repeated exposure.
	H412	Harmful to aquatic life with long lasting effects.

SECTION 16: Other information

<p>Full text of classifications [CLP/GHS]</p>	<table> <tr> <td>Acute Tox. 4</td> <td>ACUTE TOXICITY - Category 4</td> </tr> <tr> <td>Aquatic Chronic 3</td> <td>LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3</td> </tr> <tr> <td>Asp. Tox. 1</td> <td>ASPIRATION HAZARD - Category 1</td> </tr> <tr> <td>Eye Dam. 1</td> <td>SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1</td> </tr> <tr> <td>Eye Irrit. 2</td> <td>SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2</td> </tr> <tr> <td>Flam. Liq. 3</td> <td>FLAMMABLE LIQUIDS - Category 3</td> </tr> <tr> <td>Skin Irrit. 2</td> <td>SKIN CORROSION/IRRITATION - Category 2</td> </tr> <tr> <td>STOT RE 2</td> <td>SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2</td> </tr> <tr> <td>STOT SE 3</td> <td>SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3</td> </tr> </table>	Acute Tox. 4	ACUTE TOXICITY - Category 4	Aquatic Chronic 3	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3	Asp. Tox. 1	ASPIRATION HAZARD - Category 1	Eye Dam. 1	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1	Eye Irrit. 2	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2	Flam. Liq. 3	FLAMMABLE LIQUIDS - Category 3	Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2	STOT RE 2	SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2	STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3
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Notice to reader

IMPORTANT NOTE: 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 information contained in this data sheet (as may be amended from time to time) is not intended to be exhaustive and is presented in good faith and believed to be correct as of the date on which it is prepared. It is the user's responsibility to verify that this data sheet is current prior to using the product to which it relates. Persons using the information must make their own determinations as to the suitability of the relevant product for their purposes prior to use. Where those purposes are other than as specifically recommended in this safety data sheet, then the user uses the product at their own risk.

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