Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Commission Regulation (EU) 2020/878

SAFETY DATA SHEET

ROCKGRIP LC ETCH PRIMER RED OXIDE

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

1.1 Product identifier

GHS product identifier : ROCKGRIP LC ETCH PRIMER RED OXIDE

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

Product use : Use in accordance with directions on the can.

1.3. Details of the supplier of the safety data sheet

Akzonobel South Africa (PTY) LTD
NO. 1 PAINTS PLACE
DICKENS ROAD
UMBOGINTWINI
4126SOUTH AFRICA

e-mail address of person responsible for this SDS : ZA.Helpline@akzonobel.com

1.4 Emergency telephone number

Supplier

Telephone number : Customer Care 0860 330 111 (Available week days from 08:00 to 16:30).
Emergency details: after hours: refer to website for MSDS.

Version : **10.01**

Date of previous issue : 15-12-2022

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. 2, H225
Skin Irrit. 2, H315
Eye Dam. 1, H318
STOT SE 3, H335
STOT SE 3, H336

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

SECTION 2: Hazards identification

Hazard pictograms :

Signal word : Danger

Hazard statements : H225 - Highly flammable liquid and vapor.
H315 - Causes skin irritation.
H318 - Causes serious eye damage.
H335 - May cause respiratory irritation.
H336 - May cause drowsiness or dizziness.

Precautionary statements

General : P102 - Keep out of reach of children.
P101 - If medical advice is needed, have product container or label at hand.

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.
P261 - Avoid breathing vapor.
P264 - Wash hands thoroughly after handling.

Response : P304 + P312 - IF INHALED: Call a POISON CENTER or doctor if you feel unwell.
P362 + P364 - Take off contaminated clothing and wash it before reuse.
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 : P405 - Store locked up.
P403 + P233 - Store in a well-ventilated place. Keep container tightly closed.
P403 + P235 - Keep cool.

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

Hazardous ingredients : butan-1-ol
propan-1-ol
2-methylpropan-1-ol

Supplemental label elements : Contains Fatty acids, tall-oil, compds. with oleylamine and formaldehyde. May produce an allergic reaction.

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 : Yes, 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

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Type
butan-1-ol	REACH #: 01-2119484630-38 EC: 200-751-6 CAS: 71-36-3 Index: 603-004-00-6	≥15 - ≤24	Flam. Liq. 3, H226 Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335 STOT SE 3, H336	ATE [Oral] = 500 mg/kg	[1]
propan-1-ol	EC: 200-746-9 CAS: 71-23-8 Index: 603-003-00-0	≥10 - ≤15	Flam. Liq. 2, H225 Eye Dam. 1, H318 STOT SE 3, H336	-	[1]
pentan-2-ol	EC: 227-907-6 CAS: 6032-29-7 Index: 603-006-00-7	≤10	Flam. Liq. 3, H226 Acute Tox. 4, H332 STOT SE 3, H335 EUH066	ATE [Inhalation (vapours)] = 11 mg/l	[1]
butan-2-ol	EC: 201-158-5 CAS: 78-92-2 Index: 603-127-00-5	≤10	Flam. Liq. 3, H226 Eye Irrit. 2, H319 STOT SE 3, H335 STOT SE 3, H336	-	[1]
2-methylpropan-1-ol	REACH #: 01-2119484609-23 EC: 201-148-0 CAS: 78-83-1 Index: 603-108-00-1	≤5	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335 STOT SE 3, H336	-	[1]
1-methoxy-2-propanol	REACH #: 01-2119457435-35 EC: 203-539-1 CAS: 107-98-2 Index: 603-064-00-3	≤5	Flam. Liq. 3, H226 STOT SE 3, H336	-	[1] [2]
3-Methylbutan-2-ol	EC: 209-950-2 CAS: 598-75-4 Index: 603-006-00-7	≤3	Flam. Liq. 3, H226 Acute Tox. 4, H332 STOT SE 3, H335 EUH066	ATE [Inhalation (vapours)] = 11 mg/l	[1]
Phosphoric acid	REACH #: 01-2119485924-24 EC: 231-633-2 CAS: 7664-38-2 Index: 015-011-00-6	<1	Skin Corr. 1B, H314 Eye Dam. 1, H318	Skin Corr. 1B, H314: C ≥ 25% Skin Irrit. 2, H315: 10% ≤ C < 25% Eye Dam. 1, H318: C ≥ 25% Eye Irrit. 2, H319: 10% ≤ C < 25%	[1] [2]
ethyl acetate	EC: 205-500-4 CAS: 141-78-6	≤0.3	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336 EUH066	-	[1] [2]
Reaction Mass of Ethylbenzene and M-Xylene and P-Xylene	REACH #: 01-2119488216-32 EC: 215-535-7 CAS: 1330-20-7	≤0.3	Flam. Liq. 3, H226 Acute Tox. 4, H312 Acute Tox. 4, H332 Skin Irrit. 2, H315	ATE [Dermal] = 1100 mg/kg ATE [Inhalation (gases)] = 6670	[1] [2]

SECTION 3: Composition/information on ingredients

			Eye Irrit. 2, H319 STOT SE 3, H335 STOT RE 2, H373 Asp. Tox. 1, H304 Aquatic Chronic 3, H412	ppm	
phenol	REACH #: 01-2119471329-32 EC: 203-632-7 CAS: 108-95-2 Index: 604-001-00-2	≤0.19	Acute Tox. 3, H301 Acute Tox. 3, H311 Acute Tox. 4, H332 Skin Corr. 1B, H314 Eye Dam. 1, H318 Muta. 2, H341 STOT RE 2, H373 (kidneys, liver, nervous system, skin)	ATE [Oral] = 100 mg/kg ATE [Dermal] = 630 mg/kg ATE [Inhalation (dusts and mists)] = 1.5 mg/l Skin Corr. 1B, H314: C ≥ 3% Skin Irrit. 2, H315: 1% ≤ C < 3% Eye Dam. 1, H318: C ≥ 3% Eye Irrit. 2, H319: 1% ≤ C < 3% STOT RE 2, H373: C ≥ 10%	[1] [2]
Fatty acids, tall-oil, compds. with oleylamine	REACH #: 01-2119474148-28 EC: 288-315-1 CAS: 85711-55-3	<0.1	Eye Dam. 1, H318 Skin Sens. 1A, H317 STOT RE 2, H373 (oral)	-	[1]
Formaldehyde	REACH #: 01-2119488953-20 EC: 200-001-8 CAS: 50-00-0 Index: 605-001-00-5	<0.1	Acute Tox. 3, H301 Acute Tox. 3, H311 Acute Tox. 3, H331 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1, H317 Muta. 2, H341 Carc. 1B, H350 STOT SE 3, H335 **See Section 16 for the full text of the H statements declared above.**	ATE [Oral] = 100 mg/kg ATE [Dermal] = 300 mg/kg ATE [Inhalation (vapours)] = 3 mg/l Skin Corr. 1B, H314: C ≥ 25% Skin Irrit. 2, H315: 5% ≤ C < 25% Eye Dam. 1, H318: C ≥ 25% Eye Irrit. 2, H319: 5% ≤ C < 25% Skin Sens. 1, H317: C ≥ 0.2% STOT SE 3, H335: C ≥ 5%	[1] [2]

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

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 doctor. 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 doctor. 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.

Skin contact : Get medical attention immediately. Call a poison center or doctor. 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 doctor. 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.

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 vapor 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 Fatty acids, tall-oil, compds. with oleylamine, formaldehyde. May produce an allergic reaction.

Over-exposure signs/symptoms

SECTION 4: First aid measures

Eye contact : Adverse symptoms may include the following:
pain
watering
redness

Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness

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 : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments : No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Use dry chemical, CO_2, 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 : Highly flammable liquid and vapor. 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.

Hazardous combustion products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
halogenated compounds
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.

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.

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 spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialized 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 spilled 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 materials 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 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 spilled 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 vapor 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. Empty containers retain 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 8.2 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

SECTION 7: Handling and storage

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 oxidizing 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 unlabeled 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

Product/ingredient name	Exposure limit values
1-methoxy-2-propanol	**EU OEL (Europe, 1/2022). Absorbed through skin. Notes: list of indicative occupational exposure limit values** TWA: 100 ppm 8 hours. TWA: 375 mg/m³ 8 hours. STEL: 150 ppm 15 minutes. STEL: 568 mg/m³ 15 minutes.
Phosphoric acid	**EU OEL (Europe, 1/2022). Notes: list of indicative occupational exposure limit values** TWA: 1 mg/m³ 8 hours. STEL: 2 mg/m³ 15 minutes.
ethyl acetate	**EU OEL (Europe, 1/2022). Notes: list of indicative occupational exposure limit values** STEL: 400 ppm 15 minutes. STEL: 1468 mg/m³ 15 minutes. TWA: 200 ppm 8 hours. TWA: 734 mg/m³ 8 hours.
Reaction Mass of Ethylbenzene and M-Xylene and P-Xylene	**EU OEL (Europe, 10/2019). Absorbed through skin. Notes: list of indicative occupational exposure limit values** TWA: 50 ppm 8 hours. TWA: 221 mg/m³ 8 hours. STEL: 100 ppm 15 minutes. STEL: 442 mg/m³ 15 minutes.
phenol	**EU OEL (Europe, 1/2022). Absorbed through skin. Notes: list of indicative occupational exposure limit values** TWA: 2 ppm 8 hours. TWA: 8 mg/m³ 8 hours. STEL: 16 mg/m³ 15 minutes. STEL: 4 ppm 15 minutes.
Formaldehyde	**EU OEL (Europe, 1/2022). Skin sensitizer.**

SECTION 8: Exposure controls/personal protection

	STEL: 0.6 ppm 15 minutes. STEL: 0.74 mg/m³ 15 minutes. TWA: 0.62 ppm 8 hours. TWA: 0.5 mg/m³ 8 hours.

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

Product/ingredient name	Type	Exposure	Value	Population	Effects
butan-1-ol	DNEL	Long term Oral	1.5625 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	3.125 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	55.357 mg/m³	General population	Systemic
	DNEL	Long term Inhalation	155 mg/m³	General population	Local
	DNEL	Long term Inhalation	310 mg/m³	Workers	Local
propan-1-ol	DNEL	Long term Oral	61 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	80 mg/m³	General population	Systemic
	DNEL	Long term Dermal	81 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	136 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	268 mg/m³	Workers	Systemic
	DNEL	Short term Inhalation	1036 mg/m³	General population	Systemic
	DNEL	Short term Inhalation	1723 mg/m³	Workers	Systemic
butan-2-ol	DNEL	Long term Oral	15 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	203 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	213 mg/m³	General population	Systemic
	DNEL	Long term Dermal	405 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	600 mg/m³	Workers	Systemic
2-methylpropan-1-ol	DNEL	Long term Inhalation	55 mg/m³	General population	Local
	DNEL	Long term Inhalation	310 mg/m³	Workers	Local
1-methoxy-2-propanol	DNEL	Long term Oral	33 mg/kg	General	Systemic

SECTION 8: Exposure controls/personal protection

			bw/day	population	
	DNEL	Long term Inhalation	43.9 mg/m³	General population	Systemic
	DNEL	Long term Dermal	78 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	183 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	369 mg/m³	Workers	Systemic
	DNEL	Short term Inhalation	553.5 mg/m³	Workers	Local
	DNEL	Short term Inhalation	553.5 mg/m³	Workers	Systemic
Phosphoric acid	DNEL	Long term Oral	0.1 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	0.36 mg/m³	General population	Local
	DNEL	Long term Inhalation	1 mg/m³	Workers	Local
	DNEL	Short term Inhalation	2 mg/m³	Workers	Local
	DNEL	Long term Inhalation	4.57 mg/m³	General population	Systemic
	DNEL	Long term Inhalation	10.7 mg/m³	Workers	Systemic
ethyl acetate	DNEL	Long term Oral	4.5 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	37 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	63 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	367 mg/m³	General population	Local
	DNEL	Long term Inhalation	367 mg/m³	General population	Systemic
	DNEL	Short term Inhalation	734 mg/m³	General population	Local
	DNEL	Short term Inhalation	734 mg/m³	General population	Systemic
	DNEL	Long term Inhalation	734 mg/m³	Workers	Local
	DNEL	Long term Inhalation	734 mg/m³	Workers	Systemic
	DNEL	Short term Inhalation	1468 mg/m³	Workers	Local
	DNEL	Short term Inhalation	1468 mg/m³	Workers	Systemic
Reaction Mass of Ethylbenzene and M-Xylene and P-Xylene	DNEL	Long term Oral	1.6 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	14.8 mg/m³	General population	Systemic
	DNEL	Long term Inhalation	77 mg/m³	Workers	Systemic
	DNEL	Long term Dermal	108 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	180 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Inhalation	289 mg/m³	Workers	Local
	DNEL	Short term	289 mg/m³	Workers	Systemic

SECTION 8: Exposure controls/personal protection

		Inhalation			
phenol	DNEL	Long term Inhalation	0.452 mg/m³	General population	Systemic
	DNEL	Long term Oral	0.5 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	0.5 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	1.23 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	8 mg/m³	Workers	Systemic
	DNEL	Short term Inhalation	16 mg/m³	Workers	Local
Fatty acids, tall-oil, compds. with oleylamine	DNEL	Long term Oral	0.012 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	0.012 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	0.024 mg/kg bw/day	Workers	Systemic
Formaldehyde	DNEL	Long term Dermal	0.012 mg/cm²	General population	Local
	DNEL	Long term Dermal	0.037 mg/cm²	Workers	Local
	DNEL	Long term Inhalation	0.1 mg/m³	General population	Local
	DNEL	Long term Inhalation	0.375 mg/m³	Workers	Local
	DNEL	Short term Inhalation	0.75 mg/m³	Workers	Local
	DNEL	Long term Inhalation	3.2 mg/m³	General population	Systemic
	DNEL	Long term Oral	4.1 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	9 mg/m³	Workers	Systemic
	DNEL	Long term Dermal	102 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	240 mg/kg bw/day	Workers	Systemic

PNECs

No PNECs available.

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, vapor 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.

SECTION 8: Exposure controls/personal protection

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. 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

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.

When prolonged or frequently repeated contact may occur, a glove with a protection class of 6 (breakthrough time >480 minutes according to EN374) is recommended. Recommended gloves: Viton ® or Nitrile, thickness ≥ 0.38 mm. When only brief contact is expected, a glove with protection class of 2 or higher (breakthrough time >30 minutes according to EN374) is recommended. Recommended gloves: Nitrile, thickness ≥ 0.12 mm.
Gloves should be replaced regularly and if there is any sign of damage to the glove material.

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

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.

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 : 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.

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

Appearance

Physical state : Liquid.

Color : Various: See label.

Odor : Not available.

SECTION 9: Physical and chemical properties

Odor threshold : Not available.

Melting point/freezing point : Not available.

Boiling point, initial boiling point, and boiling range : 78°C (172.4°F)

Flammability : Not available.

Lower and upper explosion limit : Not available.

Flash point : Closed cup: 12°C (53.6°F) [Pensky-Martens]

Auto-ignition temperature :

Ingredient name	°C	°F	Method
1-methoxy-2-propanol	270	518	
Solvent naphtha (petroleum), light arom.	280 to 470	536 to 878	
Fatty acids, tall-oil, compds. with oleylamine	342	647.6	EU A.15
pentan-2-ol	342.85	649.1	
butan-1-ol	355	671	EU A.15
3-pentanol	360	680	
butan-2-ol	377	710.6	
propan-1-ol	400	752	DIN 51794
2-methylpropan-1-ol	415	779	
ethyl acetate	426.67	800	
Formaldehyde	430	806	
Reaction Mass of Ethylbenzene and M-Xylene and P-Xylene	432	809.6	
ETHYL ALCOHOL	455	851	DIN 51794
Propan-2-ol	456	852.8	
phenol	715	1319	

Decomposition temperature : Not available.

pH : Not available. [DIN EN 1262]

Viscosity : Kinematic: 332 mm^2/s [DIN EN ISO 3219]

Solubility(ies) :

Media	Result
cold water	Not soluble [OESO (TG 105)]

Partition coefficient: n-octanol/ water : Not applicable.

Vapor pressure :

	Vapor Pressure at 20˚C			Vapor pressure at 50˚C		
Ingredient name	mm Hg	kPa	Method	mm Hg	kPa	Method
ethyl acetate	81.59	10.9				
ETHYL ALCOHOL	42.95	5.7				
Propan-2-ol	33	4.4				
Water	23.8	3.2				
propan-1-ol	21.15	2.8				
butan-2-ol	12.75	1.7				

SECTION 9: Physical and chemical properties

2-methylpropan-1-ol	<12	<1.6	DIN EN 13016-2			
1-methoxy-2-propanol	8.5	1.1				
butan-1-ol	<7.5	<1	DIN EN 13016-2			
Reaction Mass of Ethylbenzene and M-Xylene and P-Xylene	6.7	0.89				
3-Methylbutan-2-ol	1	0.13				
Formaldehyde	1	0.13				
phenol	0.15	0.02				
Phosphoric acid	0.03	0.004				

Relative density : 0.966

Density : 0.966 g/cm³ [DIN EN ISO 2811-1]

Vapor density : Not available.

Particle characteristics

Median particle size : Not applicable.

Percentage of particles with aerodynamic diameter ≤ 10 µm : 0

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 pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

10.5 Incompatible materials : Reactive or incompatible with the following materials: oxidizing 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
butan-1-ol	LD50 Dermal	Rabbit	3400 mg/kg	-
	LD50 Intraperitoneal	Mouse	254 mg/kg	-
	LD50 Intraperitoneal	Rat	200 mg/kg	-
	LD50 Intravenous	Mouse	377 mg/kg	-
	LD50 Intravenous	Rat	310 mg/kg	-
	LD50 Oral	Bird - wild bird species	2500 mg/kg	-
	LD50 Oral	Dog	1782 mg/kg	-

SECTION 11: Toxicological information

	LD50 Oral	Hamster	1.2 g/kg	-
	LD50 Oral	Mouse	100 mg/kg	-
	LD50 Oral	Rabbit	3484 mg/kg	-
	LD50 Oral	Rabbit	3400 mg/kg	-
	LD50 Oral	Rat	0.79 g/kg	-
	LD50 Oral	Rat	4.36 g/kg	-
	LD50 Oral	Rat	790 mg/kg	-
	LD50 Subcutaneous	Mouse	3200 mg/kg	-
	LDLo Dermal	Rabbit	5 mL/kg	-
	LDLo Intravenous	Cat	243 mg/kg	-
	LDLo Oral	Dog	1760 mg/kg	-
	LDLo Oral	Human	428 mg/kg	-
	LDLo Route of exposure unreported	Rabbit	3500 mg/kg	-
	LDLo Subcutaneous	Dog	2 g/kg	-
	TDLo Eyes	Human	72.5 mg/m³	-
	TDLo Intraperitoneal	Rat	400 mg/kg	-
	TDLo Oral	Rabbit	0.8 g/kg	-
propan-1-ol	LD50 Dermal	Rabbit	5040 mg/kg	-
	LD50 Intraperitoneal	Guinea pig	1208 mg/kg	-
	LD50 Intraperitoneal	Hamster	2338 mg/kg	-
	LD50 Intraperitoneal	Mouse	3125 mg/kg	-
	LD50 Intraperitoneal	Rabbit	515 mg/kg	-
	LD50 Intraperitoneal	Rat	2164 mg/kg	-
	LD50 Intravenous	Mouse	697 mg/kg	-
	LD50 Intravenous	Rabbit	483 mg/kg	-
	LD50 Intravenous	Rat	590 mg/kg	-
	LD50 Oral	Mouse	6800 mg/kg	-
	LD50 Oral	Rabbit	2825 mg/kg	-
	LD50 Oral	Rat	1870 mg/kg	-
	LD50 Oral	Rat	2200 mg/kg	-
	LD50 Subcutaneous	Mouse	4700 mg/kg	-
	LDLo Intravenous	Cat	4008 mg/kg	-
	LDLo Oral	Dog	3 g/kg	-
	LDLo Oral	Mouse	140 mg/kg	-
	LDLo Oral	Rabbit	3500 mg/kg	-
	LDLo Oral	Woman - Female	5700 mg/kg	-
	LDLo Route of exposure unreported	Rabbit	4500 mg/kg	-
	LDLo Subcutaneous	Dog	4 g/kg	-
	LDLo Subcutaneous	Mammal - species unspecified	5 g/kg	-
	LDLo Subcutaneous	Rabbit	3 g/kg	-
butan-2-ol	LC50 Inhalation Gas.	Rat	8000 ppm	4 hours
	LC50 Inhalation Vapor	Rat	48500 mg/m³	4 hours
	LD50 Intraperitoneal	Guinea pig	1067 mg/kg	-
	LD50 Intraperitoneal	Hamster	1218 mg/kg	-
	LD50 Intraperitoneal	Mouse	771 mg/kg	-
	LD50 Intraperitoneal	Rabbit	277 mg/kg	-
	LD50 Intraperitoneal	Rat	1193 mg/kg	-
	LD50 Intravenous	Mouse	764 mg/kg	-
	LD50 Intravenous	Rat	138 mg/kg	-
	LD50 Oral	Rabbit	4893 mg/kg	-
	LD50 Oral	Rabbit	4890 mg/kg	-
	LD50 Oral	Rat	2193 mg/kg	-
	LD50 Oral	Rat	2054 mg/kg	-
	LDLo Oral	Dog	2400 mg/kg	-
	LDLo Oral	Rabbit	3000 mg/kg	-

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	LDLo Parenteral	Frog	15 g/kg	-
2-methylpropan-1-ol	LD50 Dermal	Rabbit	3400 mg/kg	-
	LD50 Intraperitoneal	Guinea pig	1201 mg/kg	-
	LD50 Intraperitoneal	Hamster	1401 mg/kg	-
	LD50 Intraperitoneal	Mouse	544 mg/kg	-
	LD50 Intraperitoneal	Mouse	544 mg/kg	-
	LD50 Intraperitoneal	Rabbit	323 mg/kg	-
	LD50 Intraperitoneal	Rat	720 mg/kg	-
	LD50 Intravenous	Mouse	417 mg/kg	-
	LD50 Intravenous	Rat	340 mg/kg	-
	LD50 Oral	Mouse	3500 mg/kg	-
	LD50 Oral	Rabbit	74.1 mg/kg	-
	LD50 Oral	Rat	2460 mg/kg	-
	LDLo Intravenous	Cat	180 mg/kg	-
	LDLo Oral	Human	428 mg/kg	-
	LDLo Oral	Rabbit	3750 mg/kg	-
	LDLo Oral	Rabbit	3750 mg/kg	-
	TDLo Eyes	Human	72.5 mg/m³	-
ethyl acetate	LD50 Intraperitoneal	Mouse	709 mg/kg	-
	LD50 Oral	Guinea pig	5.5 g/kg	-
	LD50 Oral	Guinea pig	5500 mg/kg	-
	LD50 Oral	Mouse	4.1 g/kg	-
	LD50 Oral	Mouse	4100 mg/kg	-
	LD50 Oral	Rabbit	4935 mg/kg	-
	LD50 Oral	Rat	5620 mg/kg	-
	LD50 Subcutaneous	Cat	3 g/kg	-
	LD50 Subcutaneous	Guinea pig	3 g/kg	-
	LDLo Subcutaneous	Rat	5 g/kg	-
Reaction Mass of Ethylbenzene and M-Xylene and P-Xylene	LC50 Inhalation Gas.	Rat	6670 ppm	4 hours
	LD50 Oral	Rat	4300 mg/kg	-
	LD50 Oral	Rat	4300 mg/kg	-
phenol	LC50 Inhalation Vapor	Mouse	177 mg/m³	4 hours
	LC50 Inhalation Vapor	Rat	316 mg/m³	4 hours
	LD50 Dermal	Rabbit	630 mg/kg	-
	LD50 Dermal	Rat	669 mg/kg	-
	LD50 Dermal	Rat	1500 mg/kg	-
	LD50 Intraperitoneal	Rat	127 mg/kg	-
	LD50 Oral	Rat	317 mg/kg	-
	LD50 Oral	Rat	512 mg/kg	-
	LD50 Subcutaneous	Rat	300 mg/kg	-

Conclusion/Summary : Not available.

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
ø9307	2196.7	346500.3	N/A	146.7	N/A
butan-1-ol	500	N/A	N/A	N/A	N/A
pentan-2-ol	N/A	N/A	N/A	11	N/A
butan-2-ol	N/A	N/A	N/A	48.5	N/A
3-Methylbutan-2-ol	N/A	N/A	N/A	11	N/A
Reaction Mass of Ethylbenzene and M-Xylene and P-Xylene	4300	1100	6670	N/A	N/A
phenol	100	630	N/A	N/A	1.5
Formaldehyde	100	300	N/A	3	N/A

Irritation/Corrosion

SECTION 11: Toxicological information

Product/ingredient name	Result	Species	Score	Exposure	Observation
butan-1-ol	Eyes - Severe irritant	Rabbit	-	0.005 Ml	-
	Eyes - Severe irritant	Rabbit	-	1.62 mg	-
	Eyes - Severe irritant	Rabbit	-	24 hours 2 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 mg	-
propan-1-ol	Eyes - Moderate irritant	Rabbit	-	24 hours 20 mg	-
	Skin - Mild irritant	Human	-	47 hours 100 %	-
	Skin - Mild irritant	Human	-	24 hours 100 %	-
	Skin - Mild irritant	Rabbit	-	500 mg	-
pentan-2-ol	Eyes - Moderate irritant	Rabbit	-	24 hours 20 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 mg	-
butan-2-ol	Eyes - Severe irritant	Rabbit	-	0.1 Ml	-
1-methoxy-2-propanol	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	500 mg	-
Reaction Mass of Ethylbenzene and M-Xylene and P-Xylene	Eyes - Mild irritant	Rabbit	-	87 mg	-
	Eyes - Severe irritant	Rabbit	-	24 hours 5 mg	-
	Skin - Mild irritant	Rat	-	8 hours 60 Ul	-
	Skin - Moderate irritant	Rabbit	-	100 %	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 mg	-
phenol	Eyes - Mild irritant	Rabbit	-	0.5 minutes 5 mg	-
	Eyes - Severe irritant	Rabbit	-	5 mg	-
	Skin - Mild irritant	Rabbit	-	100 mg	-
	Skin - Severe irritant	Pig	-	0.5 minutes 400 uL	-
	Skin - Severe irritant	Rabbit	-	535 mg	-
Formaldehyde	Eyes - Mild irritant	Human	-	6 minutes 1 ppm	-
	Eyes - Severe irritant	Rabbit	-	24 hours 750 ug	-
	Eyes - Severe irritant	Rabbit	-	750 ug	-
	Skin - Mild irritant	Human	-	72 hours 150 ug I	-
	Skin - Mild irritant	Rabbit	-	540 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 50 mg	-
	Skin - Severe irritant	Human	-	0.01 %	-
	Skin - Severe irritant	Rabbit	-	0.8 %	-
	Skin - Severe irritant	Rabbit	-	24 hours 2 mg	-

Conclusion/Summary : Not available.

Sensitization

Conclusion/Summary : Not available.

Mutagenicity

Conclusion/Summary : Not available.

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Carcinogenicity

Product/ingredient name	Result	Species	Dose	Exposure
Reaction Mass of Ethylbenzene and M-Xylene and P-Xylene	Positive - Inhalation - TC	Mouse	<75 ppm	103 weeks; 5 days per week

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
butan-1-ol	Category 3	-	Respiratory tract irritation
	Category 3		Narcotic effects
propan-1-ol	Category 3	-	Narcotic effects
pentan-2-ol	Category 3	-	Respiratory tract irritation
butan-2-ol	Category 3	-	Respiratory tract irritation
	Category 3		Narcotic effects
2-methylpropan-1-ol	Category 3	-	Respiratory tract irritation
	Category 3		Narcotic effects
1-methoxy-2-propanol	Category 3	-	Narcotic effects
3-Methylbutan-2-ol	Category 3	-	Respiratory tract irritation
ethyl acetate	Category 3	-	Narcotic effects
Reaction Mass of Ethylbenzene and M-Xylene and P-Xylene	Category 3	-	Respiratory tract irritation
Formaldehyde	Category 3	-	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Product/ingredient name	Category	Route of exposure	Target organs
Reaction Mass of Ethylbenzene and M-Xylene and P-Xylene	Category 2	-	-
phenol	Category 2	-	kidneys, liver, nervous system, skin
Fatty acids, tall-oil, compds. with oleylamine	Category 2	oral	-

Aspiration hazard

Product/ingredient name	Result
Reaction Mass of Ethylbenzene and M-Xylene and P-Xylene	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : Causes serious eye damage.

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Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.

Skin contact : Causes skin irritation.

Ingestion : Can cause central nervous system (CNS) depression.

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
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness

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 and also 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.

Potential chronic health effects

Not available.

Conclusion/Summary : Not available.

General : No known significant effects or critical hazards.

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

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

The mixture has been assessed following the summation method of the CLP Regulation (EC) No 1272/2008 and is not classified as hazardous to the environment, but contains substance(s) hazardous to the environment. See section 3 for details.

Product/ingredient name	Result	Species	Exposure
butan-1-ol	Acute EC50 1983 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 2300000 µg/l Marine water	Fish - Alburnus alburnus	96 hours
	Acute LC50 1910000 µg/l Fresh water	Fish - Pimephales promelas - Juvenile (Fledgling, Hatchling, Weanling)	96 hours
	Acute LC50 1940000 µg/l Fresh water	Fish - Pimephales promelas - Juvenile (Fledgling, Hatchling, Weanling)	96 hours
	Acute LC50 1730000 µg/l Fresh water	Fish - Pimephales promelas	96 hours
propan-1-ol	Acute EC50 4480000 µg/l Fresh water	Algae - Selenastrum sp.	96 hours
	Acute EC50 3644 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute EC50 4620000 µg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 2500000 µg/l Fresh water	Crustaceans - Asellus aquaticus	48 hours
	Acute LC50 1000000 µg/l Fresh water	Crustaceans - Gammarus pulex	48 hours
	Acute LC50 5820000 µg/l Fresh water	Daphnia - Daphnia cucullata	48 hours
	Acute LC50 3100000 µg/l Fresh water	Daphnia - Daphnia pulex	48 hours
	Acute LC50 2950000 µg/l Fresh water	Daphnia - Daphnia pulex	48 hours
	Acute LC50 3800000 µg/l Marine water	Fish - Alburnus alburnus	96 hours
	Acute LC50 4630000 µg/l Fresh water	Fish - Pimephales promelas	96 hours
	Acute LC50 4480000 µg/l Fresh water	Fish - Pimephales promelas	96 hours
butan-2-ol	Acute EC50 4227 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 3670000 µg/l Fresh water	Fish - Pimephales promelas	96 hours
2-methylpropan-1-ol	Acute EC50 1200000 µg/l Fresh water	Crustaceans - Ceriodaphnia reticulata - Larvae	48 hours
	Acute EC50 1439 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute EC50 1300000 µg/l Fresh water	Daphnia - Daphnia magna - Larvae	48 hours
	Acute EC50 1100000 µg/l Fresh water	Daphnia - Daphnia pulex - Larvae	48 hours
	Acute EC50 1460 mg/l Fresh water	Fish - Pimephales promelas	96 hours
	Acute LC50 600 mg/l Marine water	Crustaceans - Artemia salina	48 hours
	Acute LC50 1190000 µg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 1030000 µg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 1460000 µg/l Fresh water	Fish - Ictalurus punctatus	96 hours
	Acute LC50 1330000 µg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours
	Acute LC50 1510000 µg/l Fresh water	Fish - Pimephales promelas	96 hours
	Acute LC50 1430000 µg/l Fresh water	Fish - Pimephales promelas	96 hours
	Chronic NOEC 4 mg/l Fresh water	Daphnia - Daphnia magna	21 days
	Chronic NOEC 20 mg/l Fresh water	Daphnia - Daphnia magna	21 days
Phosphoric acid	Acute EC50 105 ppm Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 60 ppm Fresh water	Fish - Lepomis macrochirus	96 hours
ethyl acetate	Acute EC50 2500000 µg/l Fresh water	Algae - Selenastrum sp.	96 hours
	Acute LC50 1600000 µg/l Fresh water	Crustaceans - Asellus aquaticus	48 hours
	Acute LC50 750000 µg/l Fresh water	Crustaceans - Gammarus pulex	48 hours
	Acute LC50 175000 µg/l Fresh water	Daphnia - Daphnia cucullata	48 hours
	Acute LC50 154000 µg/l Fresh water	Daphnia - Daphnia cucullata	48 hours
	Acute LC50 560000 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 230000 µg/l Fresh water	Daphnia - Daphnia pulex	48 hours

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	Acute LC50 295000 µg/l Fresh water	Daphnia - Daphnia pulex	48 hours
	Acute LC50 212500 µg/l Fresh water	Fish - Heteropneustes fossilis	96 hours
	Acute LC50 484000 µg/l Fresh water	Fish - Oncorhynchus mykiss - Juvenile (Fledgling, Hatchling, Weanling)	96 hours
	Acute LC50 425300 µg/l Fresh water	Fish - Oncorhynchus mykiss - Juvenile (Fledgling, Hatchling, Weanling)	96 hours
	Acute LC50 230000 µg/l Fresh water	Fish - Pimephales promelas	96 hours
	Chronic NOEC 2.4 mg/l Fresh water	Daphnia - Daphnia magna	21 days
	Chronic NOEC 2.4 mg/l Fresh water	Daphnia - Daphnia magna	21 days
	Chronic NOEC 12 mg/l Fresh water	Daphnia - Daphnia magna	21 days
	Chronic NOEC 75.6 mg/l Fresh water	Fish - Pimephales promelas - Embryo	32 days
Reaction Mass of Ethylbenzene and M-Xylene and P-Xylene	Acute LC50 8.5 ppm Marine water	Crustaceans - Palaemonetes pugio - Adult	48 hours
	Acute LC50 8500 µg/l Marine water	Crustaceans - Palaemonetes pugio	48 hours
	Acute LC50 15700 µg/l Fresh water	Fish - Lepomis macrochirus - Juvenile (Fledgling, Hatchling, Weanling)	96 hours
	Acute LC50 13400 µg/l Fresh water	Fish - Pimephales promelas	96 hours
phenol	Acute EC50 36 mg/l Marine water	Algae - Hormosira banksii - Gamete	72 hours
	Acute EC50 10 ppm Marine water	Algae - Macrocystis pyrifera - Young	4 days
	Acute EC50 94 mg/l Fresh water	Aquatic plants - Lemna aequinoctialis	96 hours
	Acute EC50 4200 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute EC50 6600 µg/l Fresh water	Daphnia - Daphnia magna - Newly or recently hatched	48 hours
	Acute LC50 800 µg/l Marine water	Crustaceans - Archaeomysis kokuboi - Juvenile (Fledgling, Hatchling, Weanling)	48 hours
	Acute LC50 1555 µg/l Fresh water	Fish - Cirrhinus mrigala - Larvae	96 hours
	Acute LC50 1.75 µg/l Fresh water	Fish - Cyprinus carpio - Larvae	96 hours
	Acute LC50 2480 µg/l Fresh water	Fish - Notopterus notopterus	96 hours
	Acute LC50 5020 µg/l Fresh water	Fish - Oncorhynchus mykiss - Juvenile (Fledgling, Hatchling, Weanling)	96 hours
	Chronic NOEC 16 µg/l Marine water	Algae - Hormosira banksii - Gamete	72 hours
	Chronic NOEC 1.5 mg/l Fresh water	Daphnia - Daphnia magna	21 days
	Chronic NOEC 118 µg/l Fresh water	Fish - Oncorhynchus mykiss	90 days
Formaldehyde	Acute EC50 3.48 mg/l Fresh water	Algae - Desmodesmus subspicatus	72 hours
	Acute EC50 0.442 mg/l Marine water	Algae - Ulva pertusa	96 hours
	Acute EC50 3.26 mg/l Fresh water	Daphnia - Daphnia magna - Embryo	48 hours
	Acute LC50 11.41 mg/l Fresh water	Crustaceans - Ceriodaphnia dubia	48 hours
	Acute LC50 1.41 ppm Fresh water	Fish - Oncorhynchus mykiss	96 hours
	Chronic NOEC 0.005 mg/l Marine water	Algae - Isochrysis galbana - Exponential growth phase	96 hours
	Chronic NOEC 3000 ppm Fresh water	Crustaceans - Astacus astacus - Egg	21 days
	Chronic NOEC 1.56 mg/l Fresh water	Fish - Oreochromis niloticus - Fingerling	12 weeks

Conclusion/Summary : Not available.

SECTION 12: Ecological information

12.2 Persistence and degradability

Conclusion/Summary : Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Reaction Mass of Ethylbenzene and M-Xylene and P-Xylene	-	-	Readily

12.3 Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
butan-1-ol	1	-	low
propan-1-ol	0.2	-	low
pentan-2-ol	1.19	-	low
butan-2-ol	0.61	-	low
2-methylpropan-1-ol	1	-	low
1-methoxy-2-propanol	<1	-	low
3-Methylbutan-2-ol	1.28	-	low
ethyl acetate	0.68	30	low
Reaction Mass of Ethylbenzene and M-Xylene and P-Xylene	3.12	8.1 to 25.9	low
phenol	1.47	647	high

12.4 Mobility in soil

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

Mobility : Not available.

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. 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 minimized 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 : The classification of the product may meet the criteria for a hazardous waste.

SECTION 13: Disposal considerations

Disposal considerations : Do not allow to enter drains or watercourses.
Dispose of according to all federal, state and local applicable regulations.
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.

European waste catalogue (EWC)

The European Waste Catalogue classification of this product, when disposed of as waste, is:

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

Packaging

Methods of disposal : The generation of waste should be avoided or minimized 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.

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. Vapor 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 spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	IMDG
14.1 UN number	UN1263	UN1263
14.2 UN proper shipping name	PAINT	PAINT
14.3 Transport hazard class(es)	3	3
14.4 Packing group	III	II
14.5 Environmental hazards	No.	No.

Additional information

ADR/RID : **Viscous liquid exception** This class 3 material can be shipped as Packing Group III in packagings up to 450 L.
Tunnel code (E)

IMDG : **Emergency schedules** F-E, S-E
Viscous liquid exception This class 3 material can be shipped as Packing Group III in packagings up to 450 L.

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.

SECTION 14: Transport information

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

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

Annex XIV - List of substances subject to authorization

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

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

Other EU regulations

VOC : The provisions of Directive 2004/42/EC on VOC apply to this product. Refer to the product label and/or technical data sheet for further information.

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

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

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

Ozone depleting substances (1005/2009/EU)

Not listed.

Prior Informed Consent (PIC) (649/2012/EU)

Not listed.

Persistent Organic Pollutants

Not listed.

Seveso Directive

This product is controlled under the Seveso Directive.

Danger criteria

Category
P5c

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

SECTION 15: Regulatory information

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

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

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. 2, H225	On basis of test data
Skin Irrit. 2, H315	Calculation method
Eye Dam. 1, H318	Calculation method
STOT SE 3, H335	Calculation method
STOT SE 3, H336	Calculation method

Full text of abbreviated H statements

H225	Highly flammable liquid and vapor.
H226	Flammable liquid and vapor.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H311	Toxic in contact with skin.
H312	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.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H341	Suspected of causing genetic defects.
H350	May cause cancer.

SECTION 16: Other information

H373	May cause damage to organs through prolonged or repeated exposure.
H412	Harmful to aquatic life with long lasting effects.
EUH066	Repeated exposure may cause skin dryness or cracking.

Full text of classifications [CLP/GHS]

Acute Tox. 3	ACUTE TOXICITY - Category 3
Acute Tox. 4	ACUTE TOXICITY - Category 4
Aquatic Chronic 3	AQUATIC HAZARD (LONG-TERM) - Category 3
Asp. Tox. 1	ASPIRATION HAZARD - Category 1
Carc. 1B	CARCINOGENICITY - Category 1B
Eye Dam. 1	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
Eye Irrit. 2	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2
Flam. Liq. 2	FLAMMABLE LIQUIDS - Category 2
Flam. Liq. 3	FLAMMABLE LIQUIDS - Category 3
Muta. 2	GERM CELL MUTAGENICITY - Category 2
Skin Corr. 1B	SKIN CORROSION/IRRITATION - Category 1B
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
Skin Sens. 1	SKIN SENSITIZATION - Category 1
Skin Sens. 1A	SKIN SENSITIZATION - Category 1A
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 data sheet is not intended to be exhaustive and is based on the present state of our knowledge and on current laws: any person using the product for any purpose other than that specifically recommended in the technical data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at his own risk. It is always the responsibility of the user to take all necessary steps to fulfill the demands set out in the local rules and legislation. Always read the Material Safety Data Sheet and the Technical Data Sheet for this product if available. All advice we give or any statement made about the product by us (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing otherwise, we do not accept any liability whatsoever for the performance of the product or for any loss or damage arising out of the use of the product. All products supplied and technical advice given are subject to our standard terms and conditions of sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is subject to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to verify that this data sheet is current prior to using the product.

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