

Barrier 80 Comp B

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

1.1 Product identifier

| | |
|--------------------------------------|-----------------------|
| Product name | : Barrier 80 Comp B |
| UFI | : TKNN-K0AU-600D-6UVV |
| Product code | : 7461 |
| Product description | : Hardener. |
| Product type | : Liquid. |
| Other means of identification | : Not available. |

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

Use in coatings - Industrial use
Use in coatings - Professional use

1.3 Details of the supplier of the safety data sheet

Jotun A/S
P.O.Box 2021
3202 Sandefjord
Norway

Tel: + 47 33 45 70 00
Fax: +47 33 45 72 42
E-mail: SDSJotun@jotun.no

National contact

Jotun Paints Europe (Ltd).
Unit K7, Marina Commercial Park
Centre Park Road
Cork
Ireland

Tel: +353 214 965955
Fax: +353 214 965992

SDSJotun@jotun.com

1.4 Emergency telephone number

Poisons Information Centre of Ireland: +353 1 809 3000 (8am-10pm, 7 days a week)

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 Irrit. 2, H319
Skin Sens. 1, H317
STOT SE 3, H335
STOT SE 3, H336
Aquatic Chronic 3, H412

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SECTION 2: Hazards identification

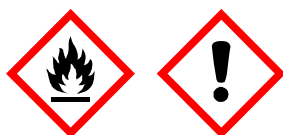
The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

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

: Warning.

Hazard statements

: H226 - Flammable liquid and vapour.
 H315 - Causes skin irritation.
 H317 - May cause an allergic skin reaction.
 H319 - Causes serious eye irritation.
 H335 - May cause respiratory irritation.
 H336 - May cause drowsiness or dizziness.
 H412 - Harmful to aquatic life with long lasting effects.

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.
 P273 - Avoid release to the environment.
 P261 - Avoid breathing vapour.

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.
 P302 + P352 - IF ON SKIN: Wash with plenty of water.
 P333 + P313 - If skin irritation or rash occurs: Get medical advice or attention.
 P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P337 + P313 - If eye irritation persists: Get medical advice or attention.

Storage

: P403 + P233 - Store in a well-ventilated place. Keep container tightly closed.

Disposal

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

Hazardous ingredients

: xylene
 1-methoxy-2-propanol
 hydrocarbons, C9, aromatics
 fatty acids, C18-unsatd., trimers, compds. with oleylamine
 Fatty acids, tall-oil, compds. with oleylamine
 amines, polyethylenepoly-, triethylenetetramine fraction
 2,2'-iminodiethylamine

Supplemental label elements

: Not applicable.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

: Not applicable.

Special packaging requirements

Containers to be fitted with child-resistant fastenings

: Not applicable.

Tactile warning of danger

: Not applicable.

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SECTION 2: Hazards identification**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 |
|--|--|-----------|--|---|---------|
| xylene | REACH #: 01-2119488216-32 EC: 215-535-7 CAS: 1330-20-7 Index: 601-022-00-9 | ≥25 - ≤40 | Flam. Liq. 3, H226 Acute Tox. 4, H312 Acute Tox. 4, H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 Asp. Tox. 1, H304 Aquatic Chronic 3, H412 | ATE [Dermal] = 1100 mg/kg ATE [Inhalation (vapours)] = 20 mg/l | [1] [2] |
| 1-methoxy-2-propanol | REACH #: 01-2119457435-35 EC: 203-539-1 CAS: 107-98-2 Index: 603-064-00-3 | ≥10 - ≤25 | Flam. Liq. 3, H226 STOT SE 3, H336 | - | [1] [2] |
| ethylbenzene | REACH #: 01-2119489370-35 EC: 202-849-4 CAS: 100-41-4 Index: 601-023-00-4 | <10 | Flam. Liq. 2, H225 Acute Tox. 4, H332 STOT RE 2, H373 (hearing organs) Asp. Tox. 1, H304 Aquatic Chronic 3, H412 | ATE [Inhalation (vapours)] = 17.8 mg/l | [1] [2] |
| hydrocarbons, C9, aromatics | REACH #: 01-2119455851-35 EC: 265-199-0 CAS: 128601-23-0 | ≤3 | Flam. Liq. 3, H226 STOT SE 3, H335 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 2, H411 | - | [1] |
| fatty acids, C18-unsatd., trimers, compds. with oleylamine | REACH #: 01-2119971821-33 CAS: 147900-93-4 | ≤3 | Acute Tox. 4, H302 Skin Sens. 1, H317 STOT RE 2, H373 Aquatic Chronic 2, H411 | ATE [Oral] = 500 mg/kg | [1] |
| Fatty acids, tall-oil, compds. with oleylamine | REACH #: 01-2119974148-28 EC: 288-315-1 CAS: 85711-55-3 | <3 | Eye Dam. 1, H318 Skin Sens. 1, H317 STOT RE 2, H373 | - | [1] |
| amines, polyethylenepoly-, triethylenetetramine fraction | REACH #: 01-2119487919-13 EC: 292-588-2 CAS: 90640-67-8 | <1 | Acute Tox. 4, H302 Acute Tox. 4, H312 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Chronic 3, | ATE [Oral] = 1716.2 mg/kg ATE [Dermal] = 1465.4 mg/kg | [1] |

Barrier 80 Comp B**SECTION 3: Composition/information on ingredients**

| | | | | | |
|------------------------|--|----|---|---|---------|
| 2,2'-iminodiethylamine | REACH #: 01-2119473793-27 EC: 203-865-4 CAS: 111-40-0 | <1 | H412 Acute Tox. 4, H302 Acute Tox. 4, H312 Acute Tox. 2, H330 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1, H317 STOT SE 3, H335 See Section 16 for the full text of the H statements declared above. | ATE [Oral] = 1080 mg/kg ATE [Dermal] = 1090 mg/kg ATE [Inhalation (vapours)] = 0.5 mg/l | [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**

- General** : In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and seek medical advice.
- Eye contact** : Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 10 minutes and seek immediate medical advice.
- Inhalation** : Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.
- Skin contact** : Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognised skin cleanser. Do NOT use solvents or thinners.
- Ingestion** : If swallowed, seek medical advice immediately and show the container or label. Keep person warm and at rest. Do NOT induce vomiting.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

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

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

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

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

Ingestion may cause nausea, diarrhea and vomiting.

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

Barrier 80 Comp B**SECTION 4: First aid measures**

Contains fatty acids, C18-unsatd., trimers, compds. with oleylamine, Fatty acids, tall-oil, compds. with oleylamine, amines, polyethylenepoly-, triethylenetetramine fraction, 2,2'-iminodiethylamine. May produce an allergic reaction.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
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:
irritation
redness
- Ingestion** : No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.

See toxicological information (Section 11)

SECTION 5: Firefighting measures**5.1 Extinguishing media**

- Suitable extinguishing media** : Recommended: alcohol-resistant foam, CO₂, powders, water spray.
- Unsuitable extinguishing media** : Do not use water jet.

5.2 Special hazards arising from the substance or mixture

- Hazards from the substance or mixture** : Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard.
- Hazardous combustion products** : Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

5.3 Advice for firefighters

- Special protective actions for fire-fighters** : Cool closed containers exposed to fire with water. Do not release runoff from fire to drains or watercourses.
- Special protective equipment for fire-fighters** : Appropriate breathing apparatus may be required.

*Barrier 80 Comp B***SECTION 6: Accidental release measures****6.1 Personal precautions, protective equipment and emergency procedures**

- For non-emergency personnel** : Exclude sources of ignition and ventilate the area. Avoid breathing vapour or mist. Refer to protective measures listed in sections 7 and 8.
- For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

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

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

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

SECTION 7: Handling and storage

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

7.1 Precautions for safe handling

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

Information on fire and explosion protection

Vapours are heavier than air and may spread along floors. Vapours may form explosive mixtures with air.

When operators, whether spraying or not, have to work inside the spray booth, ventilation is unlikely to be sufficient to control particulates and solvent vapour in all cases. In such circumstances they should wear a compressed air-fed respirator during the spraying process and until such time as the particulates and solvent vapour concentration has fallen below the exposure limits.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations.

Notes on joint storage

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

Additional information on storage conditions

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

Seveso Directive - Reporting thresholds

*Barrier 80 Comp B***SECTION 7: Handling and storage****Danger criteria**

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

See Technical Data Sheet / packaging for further information.

7.3 Specific end use(s)**Recommendations** : Not available.**Industrial sector specific solutions** : Not available.**SECTION 8: Exposure controls/personal protection**

The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

8.1 Control parameters**Occupational exposure limits**

| Product/ingredient name | Exposure limit values |
|-------------------------|---|
| xylene | EH40/2005 WELs (United Kingdom (UK), 1/2020). 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. |
| 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. TWA: 100 ppm 8 hours. |
| ethylbenzene | EH40/2005 WELs (United Kingdom (UK), 1/2020). Absorbed through skin. STEL: 552 mg/m ³ 15 minutes. STEL: 125 ppm 15 minutes. TWA: 100 ppm 8 hours. TWA: 441 mg/m ³ 8 hours. |
| 2,2'-iminodiethylamine | EH40/2005 WELs (United Kingdom (UK), 1/2020). Absorbed through skin. TWA: 4.3 mg/m ³ 8 hours. TWA: 1 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

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SECTION 8: Exposure controls/personal protection

| Product/ingredient name | Type | Exposure | Value | Population | Effects | |
|-------------------------|-----------------------------|-----------------------|-------------------------|--------------------------------|--------------------|----------|
| xylene | DNEL | Long term Inhalation | 65.3 mg/m ³ | General population | Local | |
| | 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 | 221 mg/m ³ | Workers | Local | |
| | DNEL | Long term Oral | 12.5 mg/kg bw/day | General population | Systemic | |
| | DNEL | Long term Inhalation | 65.3 mg/m ³ | General population | Systemic | |
| | DNEL | Long term Dermal | 125 mg/kg bw/day | General population | Systemic | |
| | DNEL | Long term Dermal | 212 mg/kg bw/day | Workers | Systemic | |
| | DNEL | Long term Inhalation | 221 mg/m ³ | Workers | Systemic | |
| | DNEL | Short term Inhalation | 442 mg/m ³ | Workers | Local | |
| | DNEL | Short term Inhalation | 442 mg/m ³ | Workers | Systemic | |
| | 1-methoxy-2-propanol | DNEL | Long term Oral | 33 mg/kg bw/day | General population | Systemic |
| | | DNEL | Long term Inhalation | 43.9 mg/m ³ | 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/m ³ | Workers | Systemic | |
| DNEL | | Short term Inhalation | 553.5 mg/m ³ | Workers | Local | |
| DNEL | | Short term Inhalation | 553.5 mg/m ³ | Workers | Systemic | |
| ethylbenzene | | DNEL | Long term Oral | 1.6 mg/kg bw/day | General population | Systemic |
| | DNEL | Long term Inhalation | 15 mg/m ³ | General population | Systemic | |
| | DNEL | Long term Inhalation | 77 mg/m ³ | Workers | Systemic | |
| | DNEL | Long term Dermal | 180 mg/kg bw/day | Workers | Systemic | |
| | DNEL | Short term Inhalation | 293 mg/m ³ | Workers | Local | |
| | DMEL | Long term Inhalation | 442 mg/m ³ | Workers | Local | |
| | DMEL | Short term Inhalation | 884 mg/m ³ | Workers | Systemic | |
| | hydrocarbons, C9, aromatics | DNEL | Long term Dermal | 12.5 mg/kg bw/day | Workers | Systemic |
| | | DNEL | Long term Inhalation | 151 mg/m ³ | Workers | Systemic |
| DNEL | | Long term Dermal | 7.5 mg/kg bw/day | General population [Consumers] | Systemic | |
| DNEL | | Long term Inhalation | 32 mg/m ³ | General population [Consumers] | Systemic | |
| DNEL | | Long term Oral | 7.5 mg/kg | General | Systemic | |

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SECTION 8: Exposure controls/personal protection

| | | | | | |
|--|-----------------------|------------------------|-------------------------|----------------------------|----------|
| fatty acids, C18-unsatd., trimers, compds. with oleylamine | DNEL | Long term Oral | 0.012 mg/kg bw/day | population [Consumers] | Systemic |
| | DNEL | Long term Dermal | 0.012 mg/kg bw/day | General population | Systemic |
| | DNEL | Long term Dermal | 0.024 mg/kg bw/day | General population Workers | Systemic |
| 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 | General population Workers | Systemic |
| amines, polyethylenepoly-, triethylenetetramine fraction | DNEL | Long term Inhalation | 0.096 mg/m ³ | General population | Systemic |
| | DNEL | Long term Oral | 0.14 mg/kg bw/day | General population | Systemic |
| 2,2'-iminodiethylamine | DNEL | Long term Inhalation | 0.54 mg/m ³ | Workers | Systemic |
| | DNEL | Long term Inhalation | 0.87 mg/m ³ | Workers | Local |
| | DNEL | Long term Dermal | 1.1 mg/cm ² | Workers | Local |
| | DNEL | Short term Inhalation | 2.6 mg/m ³ | Workers | Local |
| | DNEL | Long term Inhalation | 4.6 mg/m ³ | General population | Systemic |
| | DNEL | Short term Dermal | 4.88 mg/kg bw/day | General population | Systemic |
| | DNEL | Long term Dermal | 4.88 mg/kg bw/day | General population | Systemic |
| | DNEL | Long term Dermal | 11.4 mg/kg bw/day | General population Workers | Systemic |
| | DNEL | Long term Inhalation | 15.4 mg/m ³ | Workers | Systemic |
| | DNEL | Short term Inhalation | 27.5 mg/m ³ | General population | Systemic |
| DNEL | Short term Inhalation | 92.1 mg/m ³ | Workers | Systemic | |

PNECs

| Product/ingredient name | Compartment Detail | Value | Method Detail |
|-------------------------|------------------------|-----------------|---------------|
| xylene | Fresh water | 0.327 mg/l | - |
| | Marine | 0.327 mg/l | - |
| | Sewage Treatment Plant | 6.58 mg/l | - |
| | Fresh water sediment | 12.46 mg/kg dwt | - |
| | Marine water sediment | 12.46 mg/kg dwt | - |
| | Soil | 2.31 mg/kg dwt | - |
| 1-methoxy-2-propanol | Fresh water | 10 mg/l | - |
| | Marine | 1 mg/l | - |
| | Sewage Treatment Plant | 100 mg/l | - |
| | Fresh water sediment | 52.3 mg/kg dwt | - |
| | Marine water sediment | 5.2 mg/kg dwt | - |
| | Soil | 5.49 mg/kg dwt | - |
| ethylbenzene | Fresh water | 0.1 mg/l | - |
| | Marine | 0.01 mg/l | - |
| | Sewage Treatment Plant | 9.6 mg/l | - |
| | Fresh water sediment | 13.7 mg/kg dwt | - |
| | Soil | 2.68 mg/kg dwt | - |

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SECTION 8: Exposure controls/personal protection

| | | | |
|--|------------------------|-----------------|--------------------------|
| amines, polyethylenepoly-, triethylenetetramine fraction | Secondary Poisoning | 20 mg/kg | - |
| | Fresh water | 190 µg/l | Assessment Factors |
| | Fresh water sediment | 95.9 mg/kg | Equilibrium Partitioning |
| | Marine water | 38 µg/l | Assessment Factors |
| | Marine water sediment | 19.2 mg/kg | Equilibrium Partitioning |
| 2,2'-iminodiethylamine | Soil | 19.1 mg/kg | Equilibrium Partitioning |
| | Sewage Treatment Plant | 4.25 mg/l | Assessment Factors |
| | Secondary Poisoning | 0.18 mg/kg | Assessment Factors |
| | Fresh water | 0.56 mg/l | - |
| | Marine | 0.056 mg/l | - |
| | Sewage Treatment Plant | 6 mg/l | - |
| | Fresh water sediment | 1072 mg/kg dwt | - |
| | Marine water sediment | 107.2 mg/kg dwt | - |
| | Soil | 214 mg/kg dwt | - |

8.2 Exposure controls

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

Individual protection measures

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

Eye/face protection : Safety eyewear complying to ISO 16321-1:2022 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.

Skin protection

Hand protection

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

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

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

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

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

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

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

Gloves

Wear suitable gloves tested to ISO 374-1:2016.

Not recommended, gloves(breakthrough time) < 1 hour: neoprene (> 0.35 mm), butyl rubber (> 0.4 mm), PVC (> 0.5 mm)

Recommended, gloves(breakthrough time) > 8 hours: 4H/Silver Shield® (> 0.07 mm), Teflon (> 0.35 mm), polyvinyl alcohol (PVA) (> 0.3 mm), nitrile rubber (> 0.4 mm)

For right choice of glove materials, with focus on chemical resistance and time of penetration, seek advice by the supplier of chemical resistant gloves.

Barrier 80 Comp B**SECTION 8: Exposure controls/personal protection**

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** : Personnel should wear antistatic clothing made of natural fibres or of high-temperature-resistant synthetic fibres.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : If workers are exposed to concentrations above the exposure limit, they must use a respirator according to EN 140. Use respiratory mask with charcoal and dust filter when spraying this product, according to EN 14387 (as filter combination A2-P2). In confined spaces, use compressed-air or fresh-air respiratory equipment. When use of roller or brush, consider use of charcoalfilter.
- Environmental exposure controls** : Do not allow to enter drains or watercourses.

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.
- Colour** : Colourless.
- Odour** : Characteristic.
- Odour threshold** : Not applicable.
- Melting point/freezing point** : Not applicable.
- Initial boiling point and boiling range** : Lowest known value: 120.17°C (248.3°F) (1-methoxy-2-propanol). Weighted average: 132.8°C (271°F)
- Flammability** : Not applicable.
- Lower and upper explosion limit** : 0.8 - 13.74%
- Flash point** : Closed cup: 25°C
- Auto-ignition temperature** : Lowest known value: 270°C (518°F) (1-methoxy-2-propanol).
- Decomposition temperature** : Not available.
- pH** : Not applicable.
- Viscosity** : Kinematic (40°C): >20.5 mm²/s
- Solubility in water** : cold water Not soluble
hot water Not soluble
- Partition coefficient: n-octanol/ water** : Not available.
- Vapour pressure** : Highest known value: 1.2 kPa (9.3 mm Hg) (at 20°C) (ethylbenzene). Weighted average: 0.94 kPa (7.05 mm Hg) (at 20°C)
- Evaporation rate** : Highest known value: 0.84 (ethylbenzene) Weighted average: 0.8 compared with butyl acetate
- Density** : 0.919 g/cm³
- Vapour density** : Highest known value: 3.7 (Air = 1) (xylene). Weighted average: 3.51 (Air = 1)
- Explosive properties** : Not available.
- Oxidising properties** : Not available.
- Particle characteristics**
- Median particle size** : Not applicable.

9.2 Other information

No additional information.

*Barrier 80 Comp B***SECTION 9: Physical and chemical properties****SECTION 10: Stability and reactivity**

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

SECTION 11: Toxicological information**11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**

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

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

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

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

Ingestion may cause nausea, diarrhea and vomiting.

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

Contains fatty acids, C18-unsatd., trimers, compds. with oleylamine, Fatty acids, tall-oil, compds. with oleylamine, amines, polyethylenepoly-, triethylenetetramine fraction, 2,2'-iminodiethylamine. May produce an allergic reaction.

Acute toxicity

| Product/ingredient name | Result | Species | Dose | Exposure |
|--|-------------------------|-----------------------|--------------|----------|
| xylene | LC50 Inhalation Vapour | Rat | 20 mg/l | 4 hours |
| | LD50 Oral | Rat | 4300 mg/kg | - |
| | TDL ₀ Dermal | Rabbit | 4300 mg/kg | - |
| 1-methoxy-2-propanol | LD50 Dermal | Rabbit | 13 g/kg | - |
| | LD50 Oral | Rat | 6600 mg/kg | - |
| ethylbenzene | LC50 Inhalation Vapour | Rat - Male | 17.8 mg/l | 4 hours |
| | LD50 Dermal | Rabbit | >5000 mg/kg | - |
| | LD50 Oral | Rat | 3500 mg/kg | - |
| amines, polyethylenepoly-, triethylenetetramine fraction | LD50 Dermal | Rabbit - Male, Female | 1465.4 mg/kg | - |
| | LD50 Oral | Rat - Male, Female | 1716.2 mg/kg | - |
| 2,2'-iminodiethylamine | LC50 Inhalation Vapour | Rat | 0.5 mg/l | 4 hours |
| | LD50 Dermal | Rabbit | 1090 mg/kg | - |
| | LD50 Oral | Rat | 1080 mg/kg | - |

Acute toxicity estimates

Barrier 80 Comp B**SECTION 11: Toxicological information**

| Product/ingredient name | Oral (mg/kg) | Dermal (mg/kg) | Inhalation (gases) (ppm) | Inhalation (vapours) (mg/l) | Inhalation (dusts and mists) (mg/l) |
|--|--------------|----------------|--------------------------|-----------------------------|-------------------------------------|
| Barrier 80 Comp B | 27901.8 | 3784.9 | N/A | 27.9 | N/A |
| xylene | 4300 | 1100 | N/A | 20 | N/A |
| 1-methoxy-2-propanol | 6600 | 13000 | N/A | N/A | N/A |
| ethylbenzene | 3500 | N/A | N/A | 17.8 | N/A |
| fatty acids, C18-unsatd., trimers, compds. with oleylamine | 500 | N/A | N/A | N/A | N/A |
| amines, polyethylenepoly-, triethylenetetramine fraction | 1716.2 | 1465.4 | N/A | N/A | N/A |
| 2,2'-iminodiethylamine | 1080 | 1090 | N/A | 0.5 | N/A |

Irritation/Corrosion

| Product/ingredient name | Result | Species | Score | Exposure | Observation |
|--|--------------------------|------------------------------|-------|------------------------|-------------|
| xylene | Eyes - Mild irritant | Rabbit | - | 87 milligrams | - |
| | Skin - Mild irritant | Rat | - | 8 hours 60 microliters | - |
| 1-methoxy-2-propanol | Eyes - Mild irritant | Rabbit | - | 24 hours 500 mg | - |
| | Skin - Mild irritant | Rabbit | - | 500 mg | - |
| Fatty acids, tall-oil, compds. with oleylamine | Eyes - Irritant | Mammal - species unspecified | - | - | - |
| | Skin - Moderate irritant | Rabbit | - | 500 milligrams | - |

Sensitisation

| Product/ingredient name | Route of exposure | Species | Result |
|--|-------------------|------------------------------|-------------|
| fatty acids, C18-unsatd., trimers, compds. with oleylamine | skin | Mammal - species unspecified | Sensitising |
| Fatty acids, tall-oil, compds. with oleylamine | skin | Mammal - species unspecified | Sensitising |
| amines, polyethylenepoly-, triethylenetetramine fraction | skin | Mammal - species unspecified | Sensitising |
| 2,2'-iminodiethylamine | skin | Mammal - species unspecified | Sensitising |

Mutagenicity

No known significant effects or critical hazards.

Carcinogenicity

No known significant effects or critical hazards.

Reproductive toxicity

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Teratogenicity

No known significant effects or critical hazards.

Specific target organ toxicity (single exposure)

Barrier 80 Comp B**SECTION 11: Toxicological information**

| Product/ingredient name | Category | Route of exposure | Target organs |
|-----------------------------|------------|-------------------|------------------------------|
| xylene | Category 3 | - | Respiratory tract irritation |
| 1-methoxy-2-propanol | Category 3 | - | Narcotic effects |
| hydrocarbons, C9, aromatics | Category 3 | - | Respiratory tract irritation |
| 2,2'-iminodiethylamine | Category 3 | - | Narcotic effects |
| | Category 3 | - | Respiratory tract irritation |

Specific target organ toxicity (repeated exposure)

| Product/ingredient name | Category | Route of exposure | Target organs |
|--|------------|-------------------|----------------|
| ethylbenzene | Category 2 | - | hearing organs |
| fatty acids, C18-unsatd., trimers, compds. with oleylamine | Category 2 | - | - |
| Fatty acids, tall-oil, compds. with oleylamine | Category 2 | - | - |

Aspiration hazard

| Product/ingredient name | Result |
|-----------------------------|--------------------------------|
| xylene | ASPIRATION HAZARD - Category 1 |
| ethylbenzene | ASPIRATION HAZARD - Category 1 |
| hydrocarbons, C9, aromatics | ASPIRATION HAZARD - Category 1 |

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 classified for eco-toxicological properties accordingly. See Sections 2 and 3 for details.

| Product/ingredient name | Result | Species | Exposure |
|--|------------------------------------|---|----------|
| xylene | Acute LC50 8500 µg/l Marine water | Crustaceans - Palaemonetes pugio | 48 hours |
| ethylbenzene | Acute LC50 13400 µg/l Fresh water | Fish - Pimephales promelas | 96 hours |
| | Acute EC50 7700 µg/l Marine water | Algae - Skeletonema costatum | 96 hours |
| hydrocarbons, C9, aromatics | Acute EC50 2.93 mg/l | Daphnia | 48 hours |
| | Acute LC50 4.2 mg/l | Fish | 96 hours |
| | Acute EC50 <10 mg/l | Daphnia | 48 hours |
| | Acute IC50 <10 mg/l | Algae | 72 hours |
| amines, polyethylenepoly-, triethylenetetramine fraction | Acute LC50 <10 mg/l | Fish | 96 hours |
| | Acute EC50 20 mg/l | Algae | 72 hours |
| 2,2'-iminodiethylamine | Acute EC50 31.1 mg/l | Daphnia | 48 hours |
| | Acute LC50 330 mg/l | Fish | 96 hours |
| | Acute EC50 345600 µg/l Fresh water | Algae - Pseudokirchneriella subcapitata | 96 hours |

Conclusion/Summary : This material is harmful to aquatic life with long lasting effects.

12.2 Persistence and degradability

Barrier 80 Comp B**SECTION 12: Ecological information****Conclusion/Summary** : Not available.

| Product/ingredient name | Aquatic half-life | Photolysis | Biodegradability |
|--|-------------------|------------|------------------|
| xylene | - | - | Readily |
| ethylbenzene | - | - | Readily |
| hydrocarbons, C9, aromatics | - | - | Not readily |
| amines, polyethylenepoly-, triethylenetetramine fraction | - | - | Not readily |

12.3 Bioaccumulative potential

| Product/ingredient name | LogP _{ow} | BCF | Potential |
|--|--------------------|-------------|-----------|
| xylene | 3.12 | 8.1 to 25.9 | low |
| 1-methoxy-2-propanol | <1 | - | low |
| ethylbenzene | 3.6 | - | low |
| hydrocarbons, C9, aromatics | - | 10 to 2500 | high |
| amines, polyethylenepoly-, triethylenetetramine fraction | -2.65 | - | low |
| 2,2'-iminodiethylamine | -5.58 | 2.8 to 6.3 | low |

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 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.

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:

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SECTION 13: Disposal considerations

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

Packaging





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

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

| Type of packaging | European waste catalogue (EWC) |
|-------------------|--|
| CEPE Guidelines | 15 01 10* packaging containing residues of or contaminated by 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. | Yes. | No. | No. |

Additional information

ADR/RID : **Hazard identification number** 30
Tunnel code (D/E)

ADN : The product is only regulated as an environmentally hazardous substance when transported in tank vessels.

IMDG : **Emergency schedules** F-E, S-E

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 Maritime transport in bulk according to IMO instruments : Not available.

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SECTION 15: Regulatory information

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

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

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

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 may add to the calculation for determining whether a site is within the scope of the Seveso Directive on major accident hazards.

National regulations

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

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

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SECTION 15: Regulatory information

Not listed.

[UNECE Aarhus Protocol on POPs and Heavy Metals](#)

Not listed.

15.2 Chemical safety assessment : Not applicable.

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 | On basis of test data |
| Skin Irrit. 2, H315 | Calculation method |
| Eye Irrit. 2, H319 | Calculation method |
| Skin Sens. 1, H317 | Calculation method |
| STOT SE 3, H335 | Calculation method |
| STOT SE 3, H336 | Calculation method |
| Aquatic Chronic 3, H412 | Calculation method |

[Full text of abbreviated H statements](#)

| | |
|------|--|
| H225 | Highly flammable liquid and vapour. |
| H226 | Flammable liquid and vapour. |
| H302 | Harmful if swallowed. |
| H304 | May be fatal if swallowed and enters airways. |
| 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. |
| H330 | Fatal if inhaled. |
| 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. |
| H411 | Toxic to aquatic life with long lasting effects. |
| H412 | Harmful to aquatic life with long lasting effects. |

[Full text of classifications \[CLP/GHS\]](#)

Barrier 80 Comp B**SECTION 16: Other information**

| | |
|-------------------|---|
| Acute Tox. 2 | ACUTE TOXICITY - Category 2 |
| Acute Tox. 4 | ACUTE TOXICITY - Category 4 |
| Aquatic Chronic 2 | LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2 |
| 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. 2 | FLAMMABLE LIQUIDS - Category 2 |
| Flam. Liq. 3 | FLAMMABLE LIQUIDS - Category 3 |
| Skin Corr. 1B | SKIN CORROSION/IRRITATION - Category 1B |
| Skin Irrit. 2 | SKIN CORROSION/IRRITATION - Category 2 |
| Skin Sens. 1 | SKIN SENSITISATION - Category 1 |
| 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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