

Safety Data Sheet

Efadur Catalyst 0455

Replaces date: 16/05/2023

Revision date: 27/02/2025

Version: 18.0.0

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

1.1. Product identifier

Trade name: Efadur Catalyst 0455
UFI: X281-Q09Q-F00C-T39H
Article no

| Article no | Description |
|------------|-------------|
| 0455 | |

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

Recommended uses: Catalyst for alkyd enamels.
Inadvisable uses: The product is recommended for only the above described uses.

1.3. Details of the supplier of the safety data sheet

Supplier

Company: EFAPaint A/S
Address: Energivej 13
Zip code: DK-6700
City: Esbjerg
Country: DENMARK
Email: info@efapaint.dk
Phone: 0045 75 12 86 00
Fax: 0045 75 45 33 68
Homepage: www.efapaint.dk

1.4. Emergency Telephone Number

(0044) 111 (NHS 111)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

CLP-classification: Flam. Liq. 3;H226
 Skin Irrit. 2;H315
 Skin Sens. 1B;H317
 Acute Tox. 4;H332
 STOT SE 3;H335
 STOT RE 2;H373

Most serious harmful effects: Flammable liquid and vapour. Causes skin irritation. May cause an allergic skin reaction. Harmful if inhaled. May cause respiratory irritation. May cause damage to organs through prolonged or repeated exposure.

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2.2. Label elements

Pictograms



Signal word:

Warning

Contains

Substance:

xylene; Isophorondiisocyanate homopolymer; ethylbenzene;

Hazard Statements

| | |
|------|--|
| H226 | Flammable liquid and vapour. |
| H315 | Causes skin irritation. |
| H317 | May cause an allergic skin reaction. |
| H332 | Harmful if inhaled. |
| H335 | May cause respiratory irritation. |
| H373 | May cause damage to organs through prolonged or repeated exposure. |

Precautionary statements

| | |
|----------|--|
| P210 | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. |
| P280 | Wear protective gloves/protective clothing. |
| P261 | Avoid breathing vapours. |
| P264 | Wash skin thoroughly after handling. |
| P362+364 | Take off contaminated clothing and wash it before reuse. |
| P333+313 | If skin irritation or rash occurs: Get medical advice/attention. |

Supplemental information

As from 24 August 2023 adequate training is required before industrial or professional use.

2.3. Other hazards

The product does not contain any PBT or vPvB substances.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

| Substance | CAS No./ EC No./ REACH Reg. No. | Concentration | Notes | CLP-classification |
|-----------------------------------|---|---------------|-------|---|
| xylene | 1330-20-7 215-535-7 01-2119488216-32 | 50 - 60 % | | Flam. Liq. 3;H226 Acute Tox. 4;H312 Skin Irrit. 2;H315 Acute Tox. 4;H332 |
| Isophorondiisocyanate homopolymer | 53880-05-0 500-125-5 01-2119488734-24 | 25 - 30 % | | Skin Sens. 1B;H317 STOT SE 3;H335 LD50 (Acute toxicity - oral): > 14000 mg/kg bw LC50 (dust/mist) (Acute toxicity - inhalation): > 5 mg/l |
| ethylbenzene | 100-41-4 202-849-4 01-2119489370-35 | 10 - 25 % | | Flam. Liq. 2;H225 Asp. Tox. 1;H304 Acute Tox. 4;H332 STOT RE 2;H373 (Hearing organs.) LD50 (Acute toxicity - oral): 3500 mg/kg bw LC50 (vapour) (Acute toxicity - inhalation): 17.2 mg/l |

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| | | | |
|---------------------------------|---|------------|--|
| 2-methoxy-1-methylethyl acetate | 108-65-6 203-603-9 01-2119475791-29 | 2.5 - 10 % | Flam. Liq. 3;H226 LD50 (Acute toxicity - oral): 6190 mg/kg bw LD50 (Acute toxicity - dermal): > 5000 mg/kg bw LC50 (dust/mist) (Acute toxicity - inhalation): 1883 mg/l |
| toluene | 108-88-3 203-625-9 01-2119471310-51 | < 0.4 % | Flam. Liq. 2;H225 Asp. Tox. 1;H304 Skin Irrit. 2;H315 STOT SE 3;H336 Repr. 2;H361d STOT RE 2;H373 LD50 (Acute toxicity - oral): > 5000 mg/kg bw LD50 (Acute toxicity - dermal): > 5000 mg/kg bw LC50 (vapour) (Acute toxicity - inhalation): 28.1 mg/l |

Please see section 16 for the full text of H- / EUH-phrases.

SECTION 4: First aid measures

4.1. Description of first aid measures

| | |
|----------------------|--|
| Inhalation: | If patient feels unwell move to fresh air and keep under surveillance. If the victim is unconscious, ascertain whether the victim is breathing. If breathing has stopped, apply artificial respiration. If the victim is unconscious but breathing, place in the recovery position and keep warm with blankets. Call for medical attention or ambulance. |
| Ingestion: | Do not induce vomiting. If vomiting occurs, the head should be kept low so that stomach vomit doesn't enter the lungs. Get medical attention immediately! |
| Skin contact: | Promptly wash contaminated skin with soap or mild detergent and water. Promptly remove clothing if soaked through and wash as above. Do not use solvents. |
| Eye contact: | Flush immediately with lukewarm water (preferably using eye wash equipment) for at least 15 minutes. Open eye wide. Remove any contact lenses. Seek medical advice. |
| Burns: | Flush with plenty of water until pain ceases. Whilst flushing with water, remove all loose clothing from area of burns. If medical treatment is necessary, continue rinsing until a doctor takes over the treatment. |
| General: | If in doubt, seek medical advice. Also see para. 1 |

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

Pain in the eyes, redness, tears, swollen eyelids, itching Headache, dizziness, drowsiness and nausea. Sensitization of the skin and respiratory tract.

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

Depending on the extent of exposure, a prolonged medical observation may be necessary.

SECTION 5: Firefighting measures

5.1. Extinguishing media

| | |
|--|--|
| Suitable extinguishing media: | Fire can be extinguished with carbon dioxide, powder, foam or water spray. |
| Unsuitable extinguishing media: | Do not use a direct water jet that could spread the fire. |

5.2. Special hazards arising from the substance or mixture

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Fire will produce carbon monoxide, carbon dioxide, nitrogen oxides, isocyanate vapors and traces of hydrogen cyanide.

5.3. Advice for firefighters

Cool closed containers with water. Fire will produce a thick black smoke. Products of combustion are harmful and respiratory protection is required.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: Avoid inhalation of vapours. Avoid all skin contact. See protection measures in item 7 and 8. Remove all ignition sources and ensure sufficient ventilation.

For emergency responders: Use nitrile protection gloves and self-contained breathing apparatus.

6.2. Environmental precautions

Notify proper authorities in case of contamination of soil or aquatic environment or discharge to drains.

6.3. Methods and material for containment and cleaning up

Prevent major quantities of spillage from being discharged into the sewage system or water by banking the spillage with sand or the like and collecting it. Clean the contaminated area with a suitable cleaning agent, but do not use solvent.

6.4. Reference to other sections

Also see item 8 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

The product may be charged electrostatically. Always use underground wire when transferring from one container to another. Personnel should wear antistatic shoes and clothing. Floors should be conductive. Do not use tools which may produce sparks. Avoid contact with eyes and skin. Avoid inhaling vapors and spray mists. Vapors may form explosive mixtures with air. Prevent the formation of flammable or explosive mixtures. Do not use this material near naked flames or any other ignition source. Electrical installations must be protected according to regulations.

7.2. Conditions for safe storage, including any incompatibilities

The product must be kept away from children. Store in a tightly closed container and in accordance with the current regulations in a dry and well-ventilated place away from food. Keep away from ignition sources, oxidizing agents and strong acidic and basic substances. No smoking and use of open fire. No admittance to unauthorized persons. Opened containers must be carefully closed and stored upright to prevent any leakage.

7.3. Specific end use(s)

Applications is mentioned in item 1.2.

Other Information: Smoking and the consumption of food and drink are not permitted in work rooms. Personal protective equipment: Refer to section 8.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limit

| Substance name | Time period | ppm | mg/m ³ | fiber/cm3 | Remarks | Notation |
|----------------|-------------|-----|-------------------|-----------|---------|----------|
| xylene | 8h | 50 | 221 | | | Skin |
| xylene | 15m | 100 | 442 | | | Skin |
| ethylbenzene | 8h | 100 | 442 | | | Skin |

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| | | | | | |
|---------------------------------|-----|-----|-----|--|------|
| ethylbenzene | 15m | 200 | 884 | | Skin |
| 2-methoxy-1-methylethyl acetate | 15m | 100 | 550 | | Skin |
| 2-methoxy-1-methylethyl acetate | 8h | 50 | 275 | | Skin |
| toluene | 15m | 100 | 384 | | Skin |
| toluene | 8h | 50 | 192 | | Skin |

Skin = A skin notation assigned to the occupational exposure limit value indicates the possibility of significant uptake through the skin.

Legal basis:

EH40/2005 Workplace exposure limits incl. supplement from October 2007.

PNEC

| xylene, cas-no 1330-20-7 | | | | |
|--|---------------|-------------------|----------------------|------|
| Exposure | Value | Assessment Factor | Extrapolation Method | Note |
| Soil | 2,31 mg/kg | | | |
| Freshwater | 0,327 mg/l | | | |
| Marine water | 0,327 mg/l | | | |
| Freshwater - sediment | 12,64 mg/kg | | | |
| Marine water - sediment | 12,64 mg/kg | | | |
| Isophorondiisocyanate homopolymer, cas-no 53880-05-0 | | | | |
| Exposure | Value | Assessment Factor | Extrapolation Method | Note |
| Freshwater | 0,0015 mg/l | | | |
| Marine water | 0,00015 mg/l | | | |
| ethylbenzene, cas-no 100-41-4 | | | | |
| Exposure | Value | Assessment Factor | Extrapolation Method | Note |
| Freshwater | 0,1 mg/l | | | |
| Marine water | 0,01 mg/l | | | |
| Freshwater - sediment | 13,7 mg/kg | | | |
| Soil | 2,68 mg/kg | | | |
| 2-methoxy-1-methylethyl acetate, cas-no 108-65-6 | | | | |
| Exposure | Value | Assessment Factor | Extrapolation Method | Note |
| Freshwater | 0,635 mg/l | | | |
| Marine water | 0,0635 mg/l | | | |
| Freshwater - sediment | 3,29 mg/kg | | | |
| Soil | 0,29 mg/kg | | | |
| Marine water - sediment | 0,329 mg/kg | | | |
| toluene, cas-no 108-88-3 | | | | |
| Exposure | Value | Assessment Factor | Extrapolation Method | Note |
| Soil | 2,89 mg/kg dw | | | |
| Freshwater | 0,68 mg/l | | | |
| Marine water | 0,68 mg/l | | | |

DNEL - workers

| xylene, cas-no 1330-20-7 | | | | | |
|--------------------------|-----------|-----------------------------|-----------------|-----------------------|------|
| Exposure | Value | Assessment Factor | Dose Descriptor | Main Impact Parameter | Note |
| Inhalation | 221 mg/m3 | Long-term exposure | | Local effects | |
| Inhalation | 442 mg/m3 | Acute / short-term exposure | | Systemic effects | |

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| Inhalation | 289 mg/m3 | Acute / short-term exposure | | Local effects | |
|--|-----------------------|-----------------------------|-----------------|-----------------------|------|
| Dermal | 180 mg/kg bw/day | Long-term exposure | | Systemic effects | |
| Isophorondiisocyanate homopolymer, cas-no 53880-05-0 | | | | | |
| Exposure | Value | Assessment Factor | Dose Descriptor | Main Impact Parameter | Note |
| Inhalation | 0,29 mg/m3 | Long-term exposure | | Local effects | |
| Inhalation | 0,58 mg/m3 | Acute / short-term exposure | | Local effects | |
| ethylbenzene, cas-no 100-41-4 | | | | | |
| Exposure | Value | Assessment Factor | Dose Descriptor | Main Impact Parameter | Note |
| Dermal | 180 mg/kg bw/day | Long-term exposure | | Systemic effects | |
| Inhalation | 77 mg/m3 | Long-term exposure | | Systemic effects | |
| Inhalation | 293 mg/m3 | Acute / short-term exposure | | Local effects | |
| 2-methoxy-1-methylethyl acetate, cas-no 108-65-6 | | | | | |
| Exposure | Value | Assessment Factor | Dose Descriptor | Main Impact Parameter | Note |
| Inhalation | 275 mg/m3 | Long-term exposure | | Systemic effects | |
| Inhalation | 550 mg/m3 | Acute / short-term exposure | | Local effects | |
| Dermal | 153,5 mg/kg bw/day | Long-term exposure | | Systemic effects | |
| toluene, cas-no 108-88-3 | | | | | |
| Exposure | Value | Assessment Factor | Dose Descriptor | Main Impact Parameter | Note |
| Inhalation | 192 mg/m ³ | Long-term exposure | | Local effects | |
| Inhalation | 192 mg/m ³ | Long-term exposure | | Systemic effects | |
| Dermal | 384 mg/kg bw/day | Long-term exposure | | Systemic effects | |
| Inhalation | 384 mg/m3 | Acute / short-term exposure | | Local effects | |
| Inhalation | 384 mg/m3 | Acute / short-term exposure | | Systemic effects | |

Biological threshold values: See above.

Other Information: See above.

8.2. Exposure controls

Appropriate engineering controls: All work must be planned with a view to limit the breathing of fumes and the exposure to the skin. Work under effective process ventilation (e.g. local exhaust ventilation). If this is not possible, use respiratory protection.

Personal protective equipment, eye/face protection: Use suitable protective goggles or full face mask for protection against splashes.

Personal protective equipment, skin protection: If possible, wear special work clothes. When spraying wear coveralls.

Personal protective equipment, hand protection: Follow the glove manufacturer's recommendations on use and replacement. Use nitrile protection gloves. A 15-mil thickness glove provides a one-hour breakthrough-time.

Personal protective equipment, respiratory protection: Use compressed-air full face mask.

Environmental exposure controls: It must be ensured that local regulations for discharge are met.

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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| Parameter | Value/unit |
|------------|-------------------------------|
| State | Liquid |
| Colour | Yellowish |
| Odour | Odour of organic solvent. |
| Solubility | Soluble in: Organic solvents. |

| Parameter | Value/unit | Remarks |
|---|---------------------------------|------------|
| Odour threshold | No data | |
| Melting point | No data | |
| Freezing point | No data | |
| Initial boiling point and boiling range | No data | |
| Flammability (solid, gas) | No data | |
| Flammability limits | No data | |
| Explosion limits | 1 - 10 | |
| Flash Point | 25 °C | |
| Auto-ignition temperature | No data | |
| Decomposition temperature: | No data | |
| pH (solution for use) | | Irrelevant |
| pH (concentrate) | | Irrelevant |
| Kinematic viscosity | No data | |
| Viscosity | > 20.5 mm ² /s /40°C | |
| Partition coefficient n-octanol/water | No data | |
| Vapour pressure | No data | |
| Density | 0.93 g/ml | |
| Relative density | No data | |
| Relative vapour density | No data | |
| Relative density (sat. air) | No data | |
| Particle characteristics | No data | |

9.2. Other information

| Parameter | Value/unit | Remarks |
|---------------------------|------------|---------|
| Fire class | II-1 | |
| Weight % organic solvents | 71 | |
| VOC (g/liter) | 664 | |

Other Information: Solubility in water: Insoluble in water. Fat solubility: Irrelevant.

SECTION 10: Stability and reactivity

10.1. Reactivity

See below.

10.2. Chemical stability

Stable under recommended storage and handling conditions.

10.3. Possibility of hazardous reactions

Ignitable at temperatures above the flash point. The fumes can ignite by e.g. a spark, a warm surface or a glow. The fumes can mix to explosive mixtures with air. At room temperature the fumes are more heavily than air and can spread along the floor.

10.4. Conditions to avoid

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Stable at normal temperature. When exposed to high temperatures, toxic decomposition products may be formed.

10.5. Incompatible materials

Isocyanates react violently with water producing heat. To prevent heat-generating reactions, keep the product away from oxidizing agents and strong acidic and basic substances.

10.6. Hazardous decomposition products

carbon monoxide. Nitric oxide.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity - oral

xylene, cas-no 1330-20-7

| Organism | Test Type | Exposure time | Value | Conclusion | Test method | Source |
|----------|-----------|---------------|-----------------|------------|-------------|--------|
| Rat | LD50 | | > 3500 mg/kg bw | | | |

Isophorondiisocyanate homopolymer, cas-no 53880-05-0

| Organism | Test Type | Exposure time | Value | Conclusion | Test method | Source |
|----------|-----------|---------------|------------------|------------|-------------|--------|
| Rat | LD50 | | > 14000 mg/kg bw | | | |

ethylbenzene, cas-no 100-41-4

| Organism | Test Type | Exposure time | Value | Conclusion | Test method | Source |
|----------|-----------|---------------|---------------|------------|-------------|--------|
| Rat | LD50 | | 3500 mg/kg bw | | | |

2-methoxy-1-methylethyl acetate, cas-no 108-65-6

| Organism | Test Type | Exposure time | Value | Conclusion | Test method | Source |
|----------|-----------|---------------|---------------|------------|-------------|--------|
| | LD50 | | 6190 mg/kg bw | | | |

toluene, cas-no 108-88-3

| Organism | Test Type | Exposure time | Value | Conclusion | Test method | Source |
|----------|-----------|---------------|-----------------|------------|-------------|--------|
| Rat | LD50 | | > 5000 mg/kg bw | | | |

Ingestion of large quantities may cause gastrointestinal disorders.

Acute toxicity - dermal

xylene, cas-no 1330-20-7

| Organism | Test Type | Exposure time | Value | Conclusion | Test method | Source |
|----------|-----------|---------------|-----------------|------------|-------------|--------|
| Rabbit | LD50 | | > 1700 mg/kg bw | | | |

ethylbenzene, cas-no 100-41-4

| Organism | Test Type | Exposure time | Value | Conclusion | Test method | Source |
|----------|-----------|---------------|---------------|------------|-------------|--------|
| Rabbit | LD50 | | 15.4 mg/kg bw | | | |

2-methoxy-1-methylethyl acetate, cas-no 108-65-6

| Organism | Test Type | Exposure time | Value | Conclusion | Test method | Source |
|----------|-----------|---------------|-----------------|------------|-------------|--------|
| Rat | LD50 | | > 5000 mg/kg bw | | | |

toluene, cas-no 108-88-3

| Organism | Test Type | Exposure time | Value | Conclusion | Test method | Source |
|----------|-----------|---------------|-----------------|------------|-------------|--------|
| Rabbit | LD50 | | > 5000 mg/kg bw | | | |

Organic solvents may be absorbed through skin. Isocyanates may cause allergic (contact) eczema. Remove contamination immediately by skin contact. Organic solvents have a degreasing effect on the skin.

Acute toxicity - inhalation

xylene, cas-no 1330-20-7

| Organism | Test Type | Exposure time | Value | Conclusion | Test method | Source |
|----------|-----------|---------------|-------|------------|-------------|--------|
|----------|-----------|---------------|-------|------------|-------------|--------|

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| | | | | | | |
|-----|---------------|-----|---------|--|--|--|
| Rat | LC50 (vapour) | 4 h | 11 mg/l | | | |
|-----|---------------|-----|---------|--|--|--|

Isophorondiisocyanate homopolymer, cas-no 53880-05-0

| Organism | Test Type | Exposure time | Value | Conclusion | Test method | Source |
|----------|------------------|---------------|----------|------------|-------------|--------|
| Rat | LC50 (dust/mist) | 4 h | > 5 mg/l | | OECD 403 | |

ethylbenzene, cas-no 100-41-4

| Organism | Test Type | Exposure time | Value | Conclusion | Test method | Source |
|----------|---------------|---------------|-----------|------------|-------------|--------|
| Rat | LC50 (vapour) | 4 h | 17.2 mg/l | | | |

2-methoxy-1-methylethyl acetate, cas-no 108-65-6

| Organism | Test Type | Exposure time | Value | Conclusion | Test method | Source |
|----------|------------------|---------------|-----------|------------|-------------|--------|
| Rat | LC50 (dust/mist) | 4 h | 1883 mg/l | | | |

toluene, cas-no 108-88-3

| Organism | Test Type | Exposure time | Value | Conclusion | Test method | Source |
|----------|---------------|---------------|-----------|------------|-------------|--------|
| Rat | LC50 (vapour) | 4 h | 28.1 mg/l | | | |

Harmful by inhalation. Products containing isocyanates can cause acute irritation, coughing and breathing difficulties. In the longer term inhalation cause asthma, for sensitizing people even when exposed to low concentrations. Repeated inhalation may cause permanent damage to the respiratory passages. Inhalation of vapors may cause symptoms of poisoning such as memory and concentration difficulties, abnormal tiredness, irritability and, in extreme cases, unconsciousness. Prolonged and repeated inhalation of high concentrations may cause damage to liver, kidneys, brain and nervous system.

Skin corrosion/irritation: Causes skin irritation.

Serious eye damage/eye irritation: Splashing into eyes may cause smarting/irritation.

Respiratory sensitisation or skin sensitisation: May cause an allergic skin reaction.

Germ cell mutagenicity: Would not be expected germ cell mutagen

Carcinogenic properties: No data.

Reproductive toxicity: Would not be expected to be a reproductive toxicant.

Single STOT exposure: May cause respiratory irritation.

Repeated STOT exposure: May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard: Are not classified with H304 for aspiration hazard due to the viscosity.

11.2. Information on other hazards

Endocrine disrupting properties: No known information.

SECTION 12: Ecological information

12.1. Toxicity

xylene, cas-no 1330-20-7

| Organism | Species | Exposure time | Test Type | Value | Conclusion | Test method | Source |
|---------------|---------------------------------|---------------|-----------|----------|------------|-------------|--------|
| Acute algae | Pseudokirchneriella subcapitata | 72 h | EC50 | 2.2 mg/l | | OECD 201 | |
| Acute Daphnia | Daphnia magna | 24 h | IC50 | 1 mg/l | | OECD 202 | |
| Acute fish | Oncorhynchus mykiss | 96 h | LC50 | 2.6 mg/l | | OECD 203 | |

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Isophorondiisocyanate homopolymer, cas-no 53880-05-0

| Organism | Species | Exposure time | Test Type | Value | Conclusion | Test method | Source |
|---------------|-------------------------|---------------|-----------|-------------|------------|-------------|--------|
| Acute fish | Cyprinus carpio | 96 h | LC50 | > 1.51 mg/l | | | |
| Acute Daphnia | Daphnia magna | 48 h | EC50 | > 3.36 mg/l | | OECD 202 | |
| Acute algae | Scenedesmus subspicatus | 72 h | ErC50 | > 3.1 mg/l | | OECD 201 | |

ethylbenzene, cas-no 100-41-4

| Organism | Species | Exposure time | Test Type | Value | Conclusion | Test method | Source |
|---------------|---------------------------------|---------------|-----------|----------------|------------|-------------|--------|
| Acute fish | Oncorhynchus mykiss | 96 h | LC50 | 4.2 mg/l | | | |
| Acute daphnia | Daphnia magna | 48 h | EC50 | 1.8 - 2.4 mg/l | | | |
| Acute algae | Pseudokirchneriella subcapitata | 72 h | EC50 | 5.4 mg/l | | | |

2-methoxy-1-methylethyl acetate, cas-no 108-65-6

| Organism | Species | Exposure time | Test Type | Value | Conclusion | Test method | Source |
|---------------|---------------------------|---------------|-----------|-------------|------------|-------------|--------|
| | Invertebrates | | NOEC | > 100 mg/l | | | |
| Acute algae | Selenastrum capricornutum | 72 h | EC50 | - 1000 mg/l | | OECD 201 | |
| Acute fish | Oncorhynchus mykiss | 96 h | LC50 | 134 mg/l | | OECD 203 | |
| Acute Daphnia | Daphnia magna | 48 h | EC50 | > 500 mg/l | | | |

toluene, cas-no 108-88-3

| Organism | Species | Exposure time | Test Type | Value | Conclusion | Test method | Source |
|---------------|----------------------|---------------|-----------|-----------|------------|-------------|--------|
| Acute fish | Onchorhynchus mykiss | 96 h | LC50 | 5.5 mg/l | | | |
| Acute algae | | 72 h | EC50 | 10 mg/l | | | |
| Acute daphnia | Daphnia magna | 48 h | EC50 | 3.78 mg/l | | | |

12.2. Persistence and degradability

No information available

12.3. Bioaccumulative potential

2-methoxy-1-methylethyl acetate, cas-no 108-65-6

| Organism | Species | Exposure time | Test Type | Value | Conclusion | Test method | Source |
|----------|---------|---------------|-----------|-------|------------|-------------|--------|
| | | | Log Pow | ~ 43 | | | |

No information available

12.4. Mobility in soil

The product is insoluble in water and will spread out on the surface.

12.5. Results of PBT and vPvB assessment

The product does not contain any PBT or vPvB substances.

12.6. Endocrine disrupting properties

No known information.

12.7. Other adverse effects

No information available

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Other Information

Do not dispose of this product in drains, watercourses, or on the ground.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Avoid discharge to drain or surface water.

Product residues are classified as chemical waste.

Category of waste: Waste-code: 08 01 11

SECTION 14: Transport information

Land transport (ADR/RID)

| | | | |
|-----------------------------------|------------------------|------------------------------|--|
| 14.1. UN number or ID number: | 1263 | 14.4. Packing group: | III |
| 14.2. UN proper shipping name: | PAINT RELATED MATERIAL | 14.5. Environmental hazards: | The product should not be labelled as an environmental hazard (symbol: fish and tree). |
| 14.3. Transport hazard class(es): | 3 | | |
| Hazard label(s): | 3 | | |
| Hazard identification number: | 30 | Tunnel restriction code: | D/E |

Inland water ways transport (ADN)

| | | | |
|-----------------------------------|------------------------|------------------------------|--|
| 14.1. UN number or ID number: | 1263 | 14.4. Packing group: | III |
| 14.2. UN proper shipping name: | PAINT RELATED MATERIAL | 14.5. Environmental hazards: | The product should not be labelled as an environmental hazard (symbol: fish and tree). |
| 14.3. Transport hazard class(es): | 3 | | |
| Hazard label(s): | 3 | | |
| Transport in tank vessels: | | | |

Sea transport (IMDG)

| | | | |
|-----------------------------------|------------------------|--|---|
| 14.1. UN number or ID number: | 1263 | 14.4. Packing group: | III |
| 14.2. UN proper shipping name: | PAINT RELATED MATERIAL | 14.5. Environmental hazards: | The product is not a Marine Pollutant (MP). |
| 14.3. Transport hazard class(es): | 3 | Environmental Hazardous Substance Name(s): | |
| Hazard label(s): | 3 | | |
| EmS: | F-E, S-E | IMDG Code segregation group: | - None - |

Air transport (ICAO-TI / IATA-DGR)

| | | | |
|-----------------------------------|------------------------|------------------------------|--|
| 14.1. UN number or ID number: | 1263 | 14.4. Packing group: | III |
| 14.2. UN proper shipping name: | PAINT RELATED MATERIAL | 14.5. Environmental hazards: | The product should not be labelled as an environmental hazard (symbol: fish and tree). |
| 14.3. Transport hazard class(es): | 3 | | |
| Hazard label(s): | 3 | | |

14.6. Special precautions for user

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Irrelevant.

14.7. Maritime transport in bulk according to IMO instruments

Irrelevant.

SECTION 15: Regulatory information

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

Special Provisions:

REACH Annex XVII: The employer or self-employed ensures that industrial or professional user(s) have successfully completed training on the safe use of diisocyanates prior to the use of the substance(s) or mixture(s).

15.2. Chemical Safety Assessment

Other Information: Chemical safety assessment has not been performed.

SECTION 16: Other information

Version history and indication of changes

| Version | Revision date | Responsible | Changes |
|---------|---------------|-------------|-----------------|
| 18.0.0 | 27/02/2025 | GK | 2, 3, 9, 11, 16 |
| 17.0.0 | 16/05/2023 | GK | 15 |
| 16.0.0 | 15/12/2021 | GK | 2, 3, 9, 11, 12 |

Abbreviations:

DNEL: Derived No Effect Level. PNEC: Predicted No Effect Concentration. ATE: Estimate for acute toxicity EC50: Half maximal effective concentration LC50: Lethal concentration for 50% of a test population LD50: Lethal Dose for 50% of a test population. PBT: Persistent, Bioaccumulative and Toxic STOT: Specific Target Organ Toxicity

References to literature and data sources:

REACH: REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals. CLP: REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on classification, labelling and packaging of substances and mixtures.

Other Information:

The information in this Material Safety Data Sheet is based upon our knowledge and on European Union legislation. The user's working conditions are outside our control. It is the responsibility of the users to fulfil the requirements set by National Legislation. The information is no guarantee of the properties of the product. The Material Safety Data Sheet may only be reproduced with the permission of the manufacturer.

Training advice:

The instructions in this Material Safety Data Sheet are given on the assumption that the product is used as stated in item 1. Restrictions of use and special training requirements must also be complied with. The information in this Material Safety Data Sheet should be regarded as a description of the safety issues concerning the product.

Hazard statements

| | |
|------|---|
| H225 | Highly flammable liquid and vapour. |
| H226 | Flammable liquid and vapour. |
| H304 | May be fatal if swallowed and enters airways. |
| H312 | Harmful in contact with skin. |

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| | |
|-------|--|
| H315 | Causes skin irritation. |
| H317 | May cause an allergic skin reaction. |
| H332 | Harmful if inhaled. |
| H335 | May cause respiratory irritation. |
| H336 | May cause drowsiness or dizziness. |
| H361d | Suspected of damaging the unborn child. |
| H373 | May cause damage to organs through prolonged or repeated exposure. |
| H373 | May cause damage to organs through prolonged or repeated exposure. (Hearing organs.) |

Country: EU