

SAFETY DATA SHEET

ACCORDING TO REGULATION (EC) 1907/2006



Product name: **9082 Hardener**

Creation date: **01.10.2021**, Revision: **08.04.2024**, Version: **4.2**

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

1.1 Product identifier

Product name

9082 Hardener

UFI:

GR4T-C042-000J-GR42



<https://my.chemius.net/p/kG8US3/en/pd/en>

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

Relevant identified uses

Hardener.

Uses advised against

No information.

1.3 Details of the supplier of the safety data sheet

Manufacturer

SILCO d.o.o.
Sentrupert 5a
3303 Gomilsko, Slovenia
+386 3 703 3180
msds@silco.si

1.4 Emergency Telephone Number

Emergency

112

Manufacturer

112

Section 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP)

Flam. Liq. 2; H225 Highly flammable liquid and vapour.
Skin Sens. 1; H317 May cause an allergic skin reaction.
Eye Irrit. 2; H319 Causes serious eye irritation.
STOT SE 3; H335 May cause respiratory irritation.
STOT SE 3; H336 May cause drowsiness or dizziness.

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2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 [CLP]



Signal word: DANGER

H225 Highly flammable liquid and vapour.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

H336 May cause drowsiness or dizziness.

EUH066 Repeated exposure may cause skin dryness or cracking.

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P272 Contaminated work clothing should not be allowed out of the workplace.

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

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

P501 Dispose of contents/container in accordance with national regulation.

Contains:

n-butyl acetate

1,6-hexamethylene diisocyanate homopolymer

ethyl acetate

2.3 Other hazards

PBT/vPvB

No information.

Endocrine disrupting properties

The product does not contain substances with the potential for endocrine disorders.

Additional information

No information.

Section 3: Composition/information on ingredients

3.1 Substances

For mixtures see 3.2.

3.2 Mixtures

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| Name | CAS EC Index Reach | % | Classification according to Regulation (EC) No 1272/2008 (CLP) | Specific Concentration Limits |
|---|---|----------|---|---|
| n-butyl acetate | 123-86-4 204-658-1 607-025-00-1 | 40-50 | Flam. Liq. 3; H226 STOT SE 3; H336 EUH066 | / |
| 1,6-hexamethylene diisocyanate homopolymer | 28182-81-2 500-060-2 - | 25-30 | Skin Sens. 1; H317 Acute Tox. 4; H332 STOT SE 3; H335 | / |
| ethyl acetate | 141-78-6 205-500-4 607-022-00-5 | 15-20 | Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336 EUH066 | / |
| 1-methoxy-2-propyl acetate | 108-65-6 203-603-9 607-195-00-7 | 5-10 | Flam. Liq. 3; H226 | / |
| hexamethylene-diisocyanate | 822-06-0 212-485-8 615-011-00-1 | 0.01-0.1 | Skin Irrit. 2; H315 Skin Sens. 1; H317 Eye Irrit. 2; H319 Acute Tox. 3; H331 Resp. Sens. 1; H334 STOT SE 3; H335 | Skin Sens. 1; H317; C ≥ 0.5% Resp. Sens. 1; H334; C ≥ 0.5% |
| 2-methoxypropyl acetate | 70657-70-4 274-724-2 607-251-00-0 | 0.01-0.1 | Flam. Liq. 3; H226 STOT SE 3; H335 Repr. 1B; H360D | / |

Section 4: First aid measures

4.1 Description of first aid measures

General notes

Never give anything by mouth to an unconscious person. Place patient in recovery position and ensure airway patency. When in doubt or if feeling unwell seek medical assistance. Show

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the safety data sheet and label to the physician.

Following inhalation

Remove patient to fresh air - move out of dangerous area. Obtain professional medical help!

Following skin contact

Take off all contaminated clothing. Areas of the body that have come into contact with the product must be rinsed with water. If symptoms develop and persist, seek medical attention.

Following eye contact

Immediately flush eyes with running water, keeping eyelids apart. If irritation persists, seek professional medical attention.

Following ingestion

Do not induce vomiting! Rinse mouth thoroughly with water. Never give anything by mouth to an unconscious person. Consult a physician. Show the physician the safety data sheet or label.

4.2 Most important symptoms and effects, both acute and delayed

Following inhalation

Can cause irritation of respiratory system. Coughing, sneezing, nasal discharge, labored breathing. Vapours may cause drowsiness and dizziness.

Following skin contact

Contact with skin may cause irritation (redness, itching). May cause sensitisation by skin contact (itching, redness, rashes). Repeated exposure may cause dry skin or cracked skin.

Following eye contact

Redness, tearing, pain.

Following ingestion

May cause nausea/vomiting and diarrhea. May cause abdominal discomfort. Irritates mucous membranes in the mouth, throat, esophagus and in gastrointestinal area.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

Section 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Carbon dioxide. Dry chemical powder. Water spray. Alcohol resistant foam.

Unsuitable extinguishing media

Full water jet.

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products

In case of a fire toxic gases can be generated; do not inhale gases/smoke.

5.3 Advice for firefighters

Protective actions

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In case of fire or heating do not breathe fumes/vapours. No action shall be taken involving any personal risk or without suitable training. Prolonged heating can cause an explosion. Vapours can form explosive mixtures with air. Cool containers at risk with water spray. If possible remove containers from endangered area.

Special protective equipment for fire-fighters

Firefighters should wear appropriate protective clothing for firefighters (including helmets, protective boots and gloves) (BS EN 469) and self-contained breathing apparatus (SCBA) with a full face-piece (BS EN 137).

Additional information

No information.

Section 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Protective equipment

No information.

Precautionary measures

Ensure adequate ventilation. Keep away from sources of ignition and/or heat; No smoking!

Emergency procedures

No action shall be taken involving any personal risk or without suitable training. Prevent access to unprotected personnel. Evacuate the danger zone. Do not breathe vapour or mist. Avoid contact with skin, eyes and clothing.

For emergency responders

Use personal protective equipment.

6.2 Environmental precautions

Do not allow product to reach water/drains/sewage systems or permeable soil. In case of release into the environment, inform the relevant authorities.

6.3 Methods and material for containment and cleaning up

For containment

Stem the spill if this does not pose risks.

For cleaning up

Absorb product (with inert material), collect it in special container and dispose it to a licensed hazardous-waste disposal contractor. Use only explosion-proof instruments and equipment. Use spark-proof tools. Prevent release into the sewer, water, basements or confined areas. Ventilate the premises. Clean contaminated area with plenty of water.

Other information

No information.

6.4 Reference to other sections

See also sections 8 and 13.

Section 7: Handling and storage

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7.1 Precautions for safe handling

Protective measures

Measures to prevent fire

Ensure adequate ventilation. Keep away from sources of ignition - no smoking. Use spark-proof tools. Take precautionary measures against static discharges. Vapours are heavier than air and spread along the floor. They form explosive mixtures with air.

Measures to prevent aerosol and dust generation

Use general or local exhaust ventilation to prevent inhaling vapours and aerosols.

Measures to protect the environment

Do not discharge into drains, surface water and soil. After use immediately close container tightly.

Other measures

No information.

Advice on general occupational hygiene

Use good personal hygiene practices – wash hands at breaks and when done working with material. Do not eat, drink or smoke while working. Do not breathe vapours/mist. Avoid contact with skin, eyes and clothes. Remove contaminated clothes and wash them before reuse. Wear suitable protective equipment; see Section 8.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions

Keep in a cool, dry and well ventilated place. Protect from open fire, heat and direct sunlight. Keep away from food, drink and animal feeding stuffs. Keep away from oxidising substances. Keep away from sources of ignition - no smoking.

Packaging materials

Store only in original container.

Requirements for storage rooms and vessels

Close opened containers after use. Put the containers upright to prevent from leaking. Do not store in unlabelled containers.

Storage temperature

No information.

Storage class

No information.

Further information on storage conditions

No information.

7.3 Specific end use(s)

Recommendations

No information.

Industrial sector specific solutions

No information.

Section 8: Exposure controls/personal protection

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8.1 Control parameters

Occupational Exposure limit values

| Name | mg/m ³ | ml/m ³ | Short-term value mg/m ³ | Short-term value ml/m ³ | Remark | Biological Tolerance Values |
|---|-------------------|-------------------|------------------------------------|------------------------------------|--------|--|
| Isocyanates, all (as - NCO) Except methyl isocyanate | 0.02 | / | 0.07 | / | Sen | 1 µmol isocyanate-derived diamine/mol creatinine in urine - At the end of the period of exposure |
| 1-Methoxypropyl acetate (108-65-6) | 274 | 50 | 548 | 100 | Sk | / |
| Butyl acetate (123-86-4) | 724 | 150 | 966 | 200 | / | / |
| Ethyl acetate (141-78-6) | 734 | 200 | 1468 | 400 | / | / |

Information on monitoring procedures

BS EN 14042:2003 Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents. BS EN 689:2018 Workplace exposure. Measurement of exposure by inhalation to chemical agents. Strategy for testing compliance with occupational exposure limit values. BS EN 482:2021 Workplace exposure. Procedures for the determination of the concentration of chemical agents. Basic performance requirements.

DNEL/DMEL values

For product

No information.

For components

| Name | Type | Exposure route | exp. frequency | Remark | value |
|---|--------|----------------|-------------------------|--------|-----------------------|
| 1,6-hexamethylene diisocyanate homopolymer | Worker | inhalation | long term local effects | / | 0.5 mg/m ³ |

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| Name | Type | Exposure route | exp. frequency | Remark | value |
|---|----------|----------------|-----------------------------|--------|------------------------|
| 1,6-hexamethylene diisocyanate homopolymer | Worker | inhalation | short term local effects | / | 1 mg/m ³ |
| ethyl acetate | Worker | inhalation | long term systemic effects | / | 734 mg/m ³ |
| ethyl acetate | Worker | inhalation | short term systemic effects | / | 1468 mg/m ³ |
| ethyl acetate | Worker | inhalation | long term local effects | / | 734 mg/m ³ |
| ethyl acetate | Worker | inhalation | short term local effects | / | 1468 mg/m ³ |
| ethyl acetate | Worker | dermal | long term systemic effects | / | 63 mg/kg bw/day |
| ethyl acetate | Consumer | inhalation | long term systemic effects | / | 367 mg/m ³ |
| ethyl acetate | Consumer | inhalation | short term systemic effects | / | 734 mg/m ³ |
| ethyl acetate | Consumer | inhalation | long term local effects | / | 367 mg/m ³ |
| ethyl acetate | Consumer | inhalation | short term local effects | / | 734 mg/m ³ |
| ethyl acetate | Consumer | dermal | long term systemic effects | / | 37 mg/kg bw/day |
| ethyl acetate | Consumer | oral | long term systemic effects | / | 4.5 mg/kg bw/day |
| n-butyl acetate | Worker | inhalation | long term systemic effects | / | 300 mg/m ³ |
| n-butyl acetate | Worker | inhalation | short term systemic effects | / | 600 mg/m ³ |
| n-butyl acetate | Worker | inhalation | long term local effects | / | 300 mg/m ³ |

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| Name | Type | Exposure route | exp. frequency | Remark | value |
|----------------------------------|----------|----------------|-----------------------------|--------|------------------------|
| n-butyl acetate | Worker | inhalation | short term local effects | / | 600 mg/m ³ |
| n-butyl acetate | Worker | dermal | long term systemic effects | / | 11 mg/kg bw/day |
| n-butyl acetate | Worker | dermal | short term systemic effects | / | 11 mg/kg bw/day |
| n-butyl acetate | Consumer | inhalation | long term systemic effects | / | 35.7 mg/m ³ |
| n-butyl acetate | Consumer | inhalation | short term systemic effects | / | 300 mg/m ³ |
| n-butyl acetate | Consumer | inhalation | long term local effects | / | 35.7 mg/m ³ |
| n-butyl acetate | Consumer | inhalation | short term local effects | / | 300 mg/m ³ |
| n-butyl acetate | Consumer | dermal | long term systemic effects | / | 6 mg/kg bw/day |
| n-butyl acetate | Consumer | dermal | short term systemic effects | / | 6 mg/kg bw/day |
| n-butyl acetate | Consumer | oral | long term systemic effects | / | 2 mg/kg bw/day |
| n-butyl acetate | Consumer | oral | short term systemic effects | / | 2 mg/kg bw/day |
| 1-methoxy-2-propylacetate | Worker | inhalation | long term systemic effects | / | 275 mg/m ³ |
| 1-methoxy-2-propylacetate | Worker | inhalation | short term local effects | / | 550 mg/m ³ |
| 1-methoxy-2-propylacetate | Worker | dermal | long term systemic effects | / | 796 mg/kg bw/day |
| 1-methoxy-2-propylacetate | Consumer | inhalation | long term systemic effects | / | 33 mg/m ³ |

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| Name | Type | Exposure route | exp. frequency | Remark | value |
|------------------------------------|----------|----------------|-----------------------------|--------|-------------------------|
| 1-methoxy-2-propylacetate | Consumer | inhalation | long term local effects | / | 33 mg/m ³ |
| 1-methoxy-2-propylacetate | Consumer | dermal | long term systemic effects | / | 320 mg/kg bw/day |
| 1-methoxy-2-propylacetate | Consumer | oral | long term systemic effects | / | 36 mg/kg bw/day |
| 1-methoxy-2-propylacetate | Consumer | oral | short term systemic effects | / | 500 mg/kg bw/day |
| hexamethylene-di-isocyanate | Worker | inhalation | long term systemic effects | / | 0.035 mg/m ³ |
| hexamethylene-di-isocyanate | Worker | inhalation | long term local effects | / | 0.035 mg/m ³ |
| hexamethylene-di-isocyanate | Worker | inhalation | short term systemic effects | / | 0.07 mg/m ³ |

PNEC values

For product

No information.

For components

| Name | Exposure route | Remark | value |
|---|-----------------------------|------------|--------------|
| 1,6-hexamethylene diisocyanate homopolymer | fresh water | / | 0.127 mg/L |
| 1,6-hexamethylene diisocyanate homopolymer | water, intermittent release | / | 1.27 mg/L |
| 1,6-hexamethylene diisocyanate homopolymer | marine water | / | 0.013 mg/L |
| 1,6-hexamethylene diisocyanate homopolymer | water treatment plant | / | 88 mg/L |
| 1,6-hexamethylene diisocyanate homopolymer | fresh water sediment | dry weight | 266701 mg/kg |
| 1,6-hexamethylene diisocyanate homopolymer | marine water sediment | dry weight | 26670 mg/kg |
| 1,6-hexamethylene diisocyanate homopolymer | soil | dry weight | 53183 mg/kg |
| ethyl acetate | fresh water | / | 0.24 mg/L |
| ethyl acetate | water, intermittent release | / | 1.65 mg/L |

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| Name | Exposure route | Remark | value |
|------------------------------------|-----------------------------|------------|--------------|
| ethyl acetate | marine water | / | 0.024 mg/L |
| ethyl acetate | water treatment plant | / | 650 mg/L |
| ethyl acetate | fresh water sediment | dry weight | 1.15 mg/kg |
| ethyl acetate | marine water sediment | dry weight | 0.115 mg/kg |
| ethyl acetate | soil | dry weight | 0.148 mg/kg |
| ethyl acetate | secondary poisoning | food | 0.2 g/kg |
| n-butyl acetate | fresh water | / | 0.18 mg/L |
| n-butyl acetate | water, intermittent release | / | 0.36 mg/L |
| n-butyl acetate | marine water | / | 0.018 mg/L |
| n-butyl acetate | water treatment plant | / | 35.6 mg/L |
| n-butyl acetate | fresh water sediment | dry weight | 0.981 mg/kg |
| n-butyl acetate | marine water sediment | dry weight | 0.098 mg/kg |
| n-butyl acetate | soil | dry weight | 0.09 mg/kg |
| 1-methoxy-2-propylacetate | fresh water | / | 0.635 mg/L |
| 1-methoxy-2-propylacetate | water, intermittent release | / | 6.35 mg/L |
| 1-methoxy-2-propylacetate | marine water | / | 0.064 mg/L |
| 1-methoxy-2-propylacetate | water treatment plant | / | 100 mg/L |
| 1-methoxy-2-propylacetate | fresh water sediment | dry weight | 3.29 mg/kg |
| 1-methoxy-2-propylacetate | marine water sediment | dry weight | 0.329 mg/kg |
| 1-methoxy-2-propylacetate | soil | dry weight | 0.29 mg/kg |
| hexamethylene-di-isocyanate | soil | / | 0.0026 mg/kg |
| hexamethylene-di-isocyanate | fresh water | / | 0.0774 mg/L |

8.2 Exposure controls

Appropriate engineering control

Substance/mixture related measures to prevent exposure during identified uses

Use good personal hygiene practices – wash hands at breaks and when done working with material. Handle in accordance with good industrial hygiene and safety practice. Avoid

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contact with skin, eyes and clothes. Do not eat, drink or smoke while working. Do not breathe vapours/aerosols.

Structural measures to prevent exposure

No information.

Organisational measures to prevent exposure

Remove all contaminated clothes immediately and wash them before reuse.

Technical measures to prevent exposure

Provide good ventilation and local exhaust in areas with increased concentration. Keep away from food, drink and animal feeding stuffs.

Personal protective equipment

Eye and face protection

Safety glasses with side protection (BS EN ISO 16321-1:2022).

Hand protection

Protective gloves (EN ISO 374-1:2016). Observe the manufacturer's instructions regarding the use, storage, maintenance and replacement of gloves. In case of damage or at the first signs of wear and tear, change the gloves immediately. The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. The penetration time is determined by the protective glove manufacturer and must be observed.

Appropriate materials

Skin protection

Protective antistatic clothing EN 1149 (1:2006, 2:1998 and 3:2004, 5:2008), protective antistatic shoes (EN 20345:2012). At high risk of skin exposure chemical suits (EN 13034:2005+A1:2009) and boots may be required (EN ISO 20345:2022).

Respiratory protection

In case of insufficient ventilation wear suitable respiratory protection. Wear suitable protective breathing mask (EN 136) with filter A2-P2 (EN 14387).

Thermal hazards

No information.

Environmental exposure controls

Substance/mixture related measures to prevent exposure

No information.

Instruction measures to prevent exposure

No information.

Organisational measures to prevent exposure

No information.

Technical measures to prevent exposure

Do not allow product to reach drains, sewage systems or ground water.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Important health, safety and environmental information

| | |
|-----------------------|-----------------|
| Physical state | liquid |
| Shape | No information. |
| Colour | colourless |

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| | |
|---|---|
| Odour | No information. |
| Odour threshold | No information. |
| Melting/freezing point or softening point | No information. |
| Boiling point or initial boiling point and boiling range | No information. |
| Flammability (solid, gas) | No information. |
| Explosion limits (vol%) | No information. |
| Flash point | 25 °C |
| Auto-ignition temperature | No information. |
| Decomposition temperature | No information. |
| pH | substance/mixture is non-soluble (in water) Does not apply |
| Viscosity | No information. |
| Solubility | No information. |
| Partition coefficient n-octanol/water (log value) | No information. |
| Vapour pressure | No information. |
| Density | 0.97 kg/L |
| Relative vapour density | > 1 |
| Particle characteristics | No information. |

9.2 Other information

Information with regard to physical hazard classes

No information.

Other safety characteristics

| | |
|--------------------------------|-----------------|
| Weight organic solvents | 62 % 601 g/l |
| Solids content | 38 % 369 g/l |
| NCO content | 19.6 % |

Section 10: STABILITY AND REACTIVITY

10.1 Reactivity

No information.

10.2 Chemical stability

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Product is stable under normal conditions of use, recommended handling and storage conditions.

10.3 Possibility of hazardous reactions

Vapours and air can form flammable or explosive mixtures.

10.4 Conditions to avoid

Protect from heat, direct sunlight, open fire, sparks.

10.5 Incompatible materials

Oxidants.

10.6 Hazardous decomposition products

Under normal use conditions no hazardous decomposition products are expected. In case of fire/explosion vapours/gases that pose a health hazard are released.

Section 11: Toxicological information

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

(a) Acute toxicity

For components

| Name | Exposure route | Type | Species | Time | value | Method | Remark |
|--|----------------|------------------|---------|------|--------------|--------|--------|
| 1,6-hexamethylene diisocyanate homopolymer | oral | LD ₅₀ | rat | / | > 5000 mg/kg | / | / |
| 1,6-hexamethylene diisocyanate homopolymer | dermal | LD ₅₀ | rabbit | / | > 2000 mg/kg | / | / |
| 1,6-hexamethylene diisocyanate homopolymer | inhalation | LC ₀ | rat | 4 h | 2.18 mg/l | / | / |
| ethyl acetate | oral | LD ₅₀ | rabbit | / | 4935 mg/kg | / | / |
| ethyl acetate | inhalation | LC ₅₀ | rat | 4 h | 1600 mg/l | / | / |

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| Name | Exposure route | Type | Species | Time | value | Method | Remark |
|-----------------------------------|----------------|------------------|---------|------|-----------------|----------|--------------|
| n-butyl acetate | dermal | LD ₅₀ | rabbit | / | 5000 mg/kg | / | / |
| n-butyl acetate | inhalation | LC ₅₀ | rat | 4 h | 9.6 - 29.2 mg/l | / | dust/aerosol |
| n-butyl acetate | oral | LD ₅₀ | rat | / | 4700 mg/kg | / | / |
| 1-methoxy-2-propylacetate | oral | LD ₅₀ | rat | / | 8530 mg/kg | / | / |
| 1-methoxy-2-propylacetate | inhalation | LC ₅₀ | rat | 4 h | 35.7 mg/l | / | vapour |
| 1-methoxy-2-propylacetate | dermal | LD ₅₀ | rat | / | 5000 mg/kg | / | / |
| hexamethylene-diisocyanate | oral | LD ₅₀ | rat | / | 746 mg/kg | / | / |
| hexamethylene-diisocyanate | dermal | LD ₅₀ | rabbit | / | 593 mg/kg | / | / |
| hexamethylene-diisocyanate | inhalation | LC ₅₀ | rat | 8 h | 0.124 mg/l | OECD 403 | vapour |

Additional information

The product is not classified as acutely toxic.

(b) Skin corrosion/irritation

No information.

Additional information

The product is not classified as irritating to skin and eyes.

(c) Serious eye damage/irritation

For components

| Name | Exposure route | Species | Time | result | Method | Remark |
|----------------------------------|----------------|---------|------|-----------------------|--------|--------|
| 1-methoxy-2-propylacetate | / | / | / | May cause irritation. | / | / |

Additional information

Causes serious eye irritation.

(d) Respiratory or skin sensitisation

No information.

Additional information

May cause an allergic skin reaction. The product is not classified as sensitising.

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(e) (Germ cell) mutagenicity

No information.

(f) Carcinogenicity

No information.

(g) Reproductive toxicity

No information.

Summary of evaluation of the CMR properties

The product is not classified as carcinogenic, mutagenic or toxic for reproduction.

(h) STOT-single exposure

For components

| Name | Exposure route | Type | Species | Time | Exposure | organ | value | result | Method | Remarks |
|-------------------------|----------------|------|---------|------|----------|-------|-------|------------|--------|------------------------|
| 2-methoxypropyl acetate | - | - | / | / | / | / | / | Category 3 | / | Respiratory irritation |

Additional information

May cause drowsiness or dizziness. May cause respiratory irritation. STOT SE (single exposure): Not classified.

(i) STOT-repeated exposure

No information.

Additional information

Repeated exposure may cause skin dryness or cracking. STOT RE (repeated exposure): Not classified.

(j) Aspiration hazard

No information.

Additional information

Aspiration hazard: Not classified.

Symptoms related to the physical, chemical and toxicological characteristics

No information.

Interactive effects

No information.

11.2 Information on other hazards

Endocrine disrupting properties

The product does not contain substances with the potential for endocrine disorders.

Other information

No information.

Section 12: Ecological information

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12.1 Toxicity

Acute (short-term) toxicity

For components

| Name | Type | value | Exposure time | Species | organism | Method | Remark |
|---|------------------|----------|---------------|-----------|----------------------------|--------|--------|
| 1,6-hexamethylene diisocyanate homopolymer | EC ₅₀ | 100 mg/L | 48 h | daphnia | / | / | / |
| 1,6-hexamethylene diisocyanate homopolymer | EC ₅₀ | 51 mg/L | 72 h | algae | / | / | / |
| n-butyl acetate | LC ₅₀ | 18 mg/L | 96 h | fish | / | / | / |
| n-butyl acetate | EC ₅₀ | 44 mg/L | 48 h | crustacea | / | / | / |
| n-butyl acetate | EC ₅₀ | 675 mg/L | 72 h | algae | / | / | / |
| 1-methoxy-2-propylacetate | LC ₅₀ | 100 mg/L | 96 h | fish | <i>Oncorhynchus mykiss</i> | / | / |
| 1-methoxy-2-propylacetate | EC ₅₀ | 500 mg/L | 48 h | crustacea | / | / | / |

Chronic (long-term) toxicity

No information.

12.2 Persistence and degradability

Abiotic degradation, physical- and photo-chemical elimination

No information.

Biodegradation

No information.

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12.3 Bioaccumulative potential

Partition coefficient n-octanol/water (log value)

No information.

Bioconcentration factor (BCF)

For components

| Name | Species | organism | value | Duration | Evaluation | Method | Remark |
|---------------------------|----------|----------|-------|----------|------------|--------|--------|
| 1-methoxy-2-propylacetate | organism | / | 0.43 | / | / | / | / |

12.4 Mobility in soil

Known or predicted distribution to environmental compartments

No information.

Surface tension

No information.

Adsorption/Desorption

No information.

12.5 Results of PBT and vPvB assessment

No evaluation.

12.6 Endocrine disrupting properties

The product does not contain substances with the potential for endocrine disorders.

12.7 Other adverse effects

No information.

12.8 Additional information

For product

Product is not classified as dangerous for environment. Do not allow to reach ground water, water courses or sewage system.

For components

1-methoxy-2-propylacetate

Water hazard class 1 (Self-assessment): slightly hazardous for water

Section 13: Disposal considerations

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13.1 Waste treatment methods

Product / Packaging disposal

Waste chemical

Do not allow product to reach drains/sewage systems. Disposal must be made according to official regulations: deliver it to authorised collector/remover/transformer of hazardous waste.

Waste codes / waste designations according to LoW

No information.

Packaging

Deliver completely emptied containers to approved waste disposal authorities. Uncleaned containers are classified as hazardous waste - they should be handled in the same manner as the contents. Uncleaned containers should not be perforated, cut or welded. Empty containers represent a fire hazard as they may contain flammable product residues and vapours.

Waste codes / waste designations according to LoW

No information.

Waste treatment-relevant information

No information.





Sewage disposal-relevant information

No information.

Other disposal recommendations

No information.

Section 14: Transport information

| ADR/RID | IMDG | IATA | ADN |
|---|---|---|---|
| 14.1 UN number or ID number | | | |
| UN 1263 | UN 1263 | UN 1263 | UN 1263 |
| 14.2 UN proper shipping name | | | |
| PAINT RELATED MATERIAL | PAINT RELATED MATERIAL | PAINT RELATED MATERIAL | PAINT RELATED MATERIAL |
| 14.3 Transport hazard class(es) | | | |
| 3 | 3 | 3 | 3 |
|  |  |  |  |
| 14.4 Packing group | | | |

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| ADR/RID | IMDG | IATA | ADN |
|---|--|---|---------------------------|
| III | III | III | III |
| 14.5 Environmental hazards | | | |
| NO | NO | NO | NO |
| 14.6 Special precautions for user | | | |
| Limited quantities 5 L Special provisions 163, 367, 650 Packing Instructions P001, IBC02, R001 Special packing provisions PP1, BB4 Transport category 3 Tunnel restriction code (E) Classification code F1 | Limited quantities 5 L EmS F-E, <u>S-E</u> Flash point 25 °C | Limited Quantity, Packing Instructions (Ltd Qty, Pkg Inst) Y344 Limited Quantity, Maximum Net Quantity/Package (Ltd Qty, Max Net Qty/Pkg) 10 L Packing Instructions (Pkg Inst) 355 Maximum Net Quantity/Package (Max Net Qty/Pkg) 25 L Special provisions A3, A72, A192 | Limited quantities 5 L |
| 14.7 Maritime transport in bulk according to IMO instruments | | | |
| | Goods may not be carried in bulk in bulk containers, containers or vehicles. | | |

Section 15: Regulatory information

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

- Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (including last amendment Commission Regulation (EU) 2020/878)
- Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures

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Information according 2004/42/EC about limitation of emissions of volatile organic compounds (VOC-guideline)

not applicable

Ingredients according to Regulation (EC) No 648/2004 on detergents

No information.

Special instructions

Observe the regulations on employment and protection against dangerous substances for young people, pregnant women and nursing mothers. Water hazard class 2 (self-assessment): hazardous for water.

15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

Section 16: Other information

Indication of changes

9.1 Information on basic physical and chemical properties 9.2 Other information 12.3 Bioaccumulative potential 14. Transport information

Key literature references and sources for data

No information.

Abbreviations and acronyms

ATE - Acute Toxicity Estimate
ADR - Agreement concerning the International Carriage of Dangerous Goods by Road
ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
CEN - European Committee for Standardisation
C&L - Classification and Labelling
CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
CAS# - Chemical Abstracts Service number
CMR - Carcinogen, Mutagen, or Reproductive Toxicant
CSA - Chemical Safety Assessment
CSR - Chemical Safety Report
DMEL - Derived Minimal Effect Level
DNEL - Derived No Effect Level
DPD - Dangerous Preparations Directive 1999/45/EC
DSD - Dangerous Substances Directive 67/548/EEC
DU - Downstream User
EC - European Community
ECHA - European Chemicals Agency
EC-Number - EINECS and ELINCS Number (see also EINECS and ELINCS)
EEA - European Economic Area (EU + Iceland, Liechtenstein and Norway)
EEC - European Economic Community
EINECS - European Inventory of Existing Commercial Substances
ELINCS - European List of notified Chemical Substances
EN - European Standard
EQS - Environmental Quality Standard
EU - European Union
Euphrac - European Phrase Catalogue
EWC - European Waste Catalogue (replaced by LoW - see below)

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GES - Generic Exposure Scenario
GHS - Globally Harmonized System
IATA - International Air Transport Association
ICAO-TI - Technical Instructions for the Safe Transport of Dangerous Goods by Air
IMDG - International Maritime Dangerous Goods
IMSBC - International Maritime Solid Bulk Cargoes
IT - Information Technology
IUCID - International Uniform Chemical Information Database
IUPAC - International Union for Pure Applied Chemistry
JRC - Joint Research Centre
Kow - octanol-water partition coefficient
LC50 - Lethal Concentration to 50 % of a test population
LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose)
LE - Legal Entity
LoW - List of Wastes (see <http://ec.europa.eu/environment/waste/framework/list.htm>)
LR - Lead Registrant
M/I - Manufacturer / Importer
MS - Member States
MSDS - Material Safety Data Sheet
OC - Operational Conditions
OECD - Organization for Economic Co-operation and Development
OEL - Occupational Exposure Limit
OJ - Official Journal
OR - Only Representative
OSHA - European Agency for Safety and Health at work
PBT - Persistent, Bioaccumulative and Toxic substance
PEC - Predicted Effect Concentration
PNEC(s) - Predicted No Effect Concentration(s)
PPE - Personal Protection Equipment
(Q)SAR - Qualitative Structure Activity Relationship
REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID - Regulations concerning the International Carriage of Dangerous Goods by Rail
RIP - REACH Implementation Project
RMM - Risk Management Measure
SCBA - Self-Contained Breathing Apparatus
SDS - Safety data sheet
SIEF - Substance Information Exchange Forum
SME - Small and Medium sized Enterprises
STOT - Specific Target Organ Toxicity
(STOT) RE - Repeated Exposure
(STOT) SE - Single Exposure
SVHC - Substances of Very High Concern
UN - United Nations
vPvB - Very Persistent and Very Bioaccumulative

List of relevant H phrases

H225 Highly flammable liquid and vapour.
H226 Flammable liquid and vapour.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H331 Toxic if inhaled.
H332 Harmful if inhaled.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

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H335 May cause respiratory irritation.

H336 May cause drowsiness or dizziness.

H360D May damage the unborn child.

EUH066 Repeated exposure may cause skin dryness or cracking.