

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)
according to Regulation (EU) 2020/878

Article No.: 36 SILAFLOR 1K-PUR Siegellack
Print date: 26.12.2022 Revision date: 10.12.2022 EN
Version: 8.0 Issue date: 10.12.2022 Page 1 / 12

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

1.1. product identifiers

Article No. (manufacturer/supplier) 36
Trade name/designation SILAFLOR 1K-PUR Siegellack
KH-36

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

Relevant identified uses:

Coating material to protecting surfaces

1.3. Details of the supplier of the safety data sheet

supplier (manufacturer/importer/downstream user/distributor)

Knuchel Farben AG
Farben + Lacke Telephone: +41 (0) 32 636 50 40
Steinackerweg 11 Telefax: +41 (0) 32 636 50 45
CH-4537 Wiedlisbach

Department responsible for information:

laboratory Manager
E-mail (competent person) info@knuchel.ch

1.4. Emergency telephone number

Emergency telephone number 145 (+41 (0)44 251 51 51)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

Flam. Liq. 3 / H226	Flammable liquids	Flammable liquid and vapour.
STOT SE 3 / H336	STOT-single exposure	May cause drowsiness or dizziness.
Aquatic Chronic 3 / H412	Hazardous to the aquatic environment	Harmful to aquatic life with long lasting effects.

2.2. Label elements

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

Hazard pictograms



Warning

Hazard statements

H226 Flammable liquid and vapour.
H336 May cause drowsiness or dizziness.
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.
P103 Read carefully and follow all instructions.
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P240 Ground and bond container and receiving equipment.
P241 Use explosion-proof electrical equipment.
P242 Use non-sparking tools.
P243 Take action to prevent static discharges.
P261 Avoid breathing vapours.
P271 Use only outdoors or in a well-ventilated area.
P273 Avoid release to the environment.
P280 Wear protective gloves and eye/face protection.
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.
P312 Call a POISON CENTER or doctor/physician if you feel unwell.
P370 + P378 In case of fire: Use extinguishing powder or sand to extinguish.
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
P403 + P235 Store in a well-ventilated place. Keep cool.

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P405 Keep locked up.
P501 Dispose of contents/container to industrial incineration plant.

Hazard components for labelling

Hydrocarbons, C9-C11, n-alkanes, iso-alkanes, cyclic compounds, <2% aromatics

Supplemental hazard information

EUH208 Contains Fatty acid C6-C19, cobalt salt. May produce an allergic reaction.

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.2. Mixtures *

Description solvent-based alkyd resin, containing the following hazardous substances:

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

EC No. CAS No. Index No.	REACH No. Designation classification // Remark	weight-%
919-857-5	01-2119463258-33 Hydrocarbons, C9-C11, n-alkanes, iso-alkanes, cyclic compounds, <2% aromatics STOT SE 3 H336 / Asp. Tox. 1 H304 / Flam. Liq. 3 H226	25 - 40
918-481-9	01-2119457273-39 Hydrocarbons, C10-C13, n-alkanes, iso-alkanes, cyclic, <2% aromatics Asp. Tox. 1 H304	15 - 25
918-668-5	01-2119455851-35 Hydrocarbons, C9, aromatics, <0.1% benzene STOT SE 3 H336 / Asp. Tox. 1 H304 / Aquatic Chronic 2 H411	1 - 5
212-828-1 872-50-4 606-021-00-7	01-2119472430-46 N-methyl-2-pyrrolidone Repr. 1B H360 / STOT SE 3 H335 / Skin Irrit. 2 H315 / Eye Irrit. 2 H319 Specific concentration limit (SCL): STOT SE 3 H335 >= 10	0.1 - 0.5
245-018-1 22464-99-9	Fatty acid C6-C19, zirconium Repr. 2 H361	0.1 - 0.5
271-378-4 68551-44-0	01-2119979093-30 FATTY C6-C19, ZINC SOAP Eye Irrit. 2 H319 / Repr. 2 H361 / Asp. Tox. 1 H304 / Aquatic Chronic 3 H412	0.1 - 0.5
270-066-5 68409-81-4	Fatty acid C6-C19, cobalt salt Acute Tox. 4 H302 / Skin Irrit. 2 H315 / Eye Irrit. 2 H319 / Skin Sens. 1 H317 / Repr. 1B H360 / Aquatic Chronic 2 H411	0.1 - 0.5

Additional information

Full text of classification: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness give nothing by mouth, place in recovery position and seek medical advice.

In case of inhalation

Remove casualty to fresh air and keep warm and at rest. In case of irregular breathing or respiratory arrest provide artificial respiration.

Following skin contact

Take off immediately all contaminated clothing. After contact with skin, wash immediately with plenty of water and soap. Do not use solvents or thinners.

After eye contact

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Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical advice immediately.

Following ingestion

If swallowed, rinse mouth with water (only if the person is conscious). Seek medical advice immediately. Keep victim calm. Do NOT induce vomiting.

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

In all cases of doubt, or when symptoms persist, seek medical advice.

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

First Aid, decontamination, treatment of symptoms.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

alcohol resistant foam, carbon dioxide, Powder, spray mist, (water)

Unsuitable extinguishing media

strong water jet

5.2. Special hazards arising from the substance or mixture

Dense black smoke occurs during fire. Inhaling hazardous decomposing products can cause serious health damage.

5.3. Advice for firefighters

Provide a conveniently located respiratory protective device. Cool closed containers that are near the source of the fire. Do not allow water used to extinguish fire to enter drains, ground or waterways.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Keep away from sources of ignition. Ventilate affected area. Do not breathe vapours.

6.2. Environmental precautions

Do not allow to enter into surface water or drains. If the product contaminates lakes, rivers or sewages, inform competent authorities in accordance with local regulations.

6.3. Methods and material for containment and cleaning up

Isolate leaked material using non-flammable absorption agent (e.g. sand, earth, vermiculit, diatomaceous earth) and collect it for disposal in appropriate containers in accordance with the local regulations (see section 13). Clean using cleansing agents. Do not use solvents.

6.4. Reference to other sections

Observe protective provisions (see section 7 and 8).

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advices on safe handling

Avoid formation of flammable and explosive vapour concentrations in the air and exceeding the exposure limit values. Only use the material in places where open light, fire and other flammable sources can be kept away. Electrical equipment must be protected meeting the accepted standard. Product may become electrostatically charged. Provide earthing of containers, equipment, pumps and ventilation facilities. Anti-static clothing including shoes are recommended. Floors must be electrically conductive. Keep away from heat sources, sparks and open flames. Use only spark proof tools. Avoid contact with skin, eyes and clothes. Do not inhale dusts, particulates and spray mist when using this preparation. Avoid respiration of swarf. When using do not eat, drink or smoke. Personal protection equipment: refer to section 8. Do not empty containers with pressure - no pressure vessel! Always keep in containers that correspond to the material of the original container. Follow the legal protection and safety regulations.

Further information

Vapours are heavier than air. Vapours form explosive mixtures with air.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Storage in accordance with the Ordinance on Industrial Safety and Health (BetrSiVO). Keep container tightly closed. Do not empty containers with pressure - no pressure vessel! Smoking is forbidden. Access only for authorised persons. Store carefully closed containers upright to prevent any leaks. Soils have to conform to the "Guidelines for avoidance of ignition hazards due to electrostatic charges (TRGS 727)".

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Hints on joint storage

Keep away from strongly acidic and alkaline materials as well as oxidizers.

Further information on storage conditions

Take care of instructions on label. Store in a well-ventilated and dry room at temperatures between 15 °C and 30 °C. Protect from heat and direct sunlight. Keep container tightly closed. Remove all sources of ignition. Smoking is forbidden. Access only for authorised persons. Store carefully closed containers upright to prevent any leaks.

7.3. Specific end use(s)

Observe technical data sheet. Observe instructions for use.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limit values:

N-methyl-2-pyrrolidone

Index No. 606-021-00-7 / EC No. 212-828-1 / CAS No. 872-50-4

WEL, TWA: 40 mg/m³; 10 ppm

WEL, STEL: 80 mg/m³; 20 ppm

Remark: (may be absorbed through the skin)

Additional information

TWA : Long-term occupational exposure limit value

STEL : short-term occupational exposure limit value

Ceiling : peak limitation

DNEL:

N-methyl-2-pyrrolidone

Index No. 606-021-00-7 / EC No. 212-828-1 / CAS No. 872-50-4

DNEL acute dermal, short-term (systemic), Workers: 208 mg/kg

DNEL long-term dermal (systemic), Workers: 4,8 mg/kg bw/day

DNEL acute inhalative (systemic), Workers: 80 mg/m³

DNEL long-term inhalative (local), Workers: 40 mg/m³

DNEL long-term inhalative (systemic), Workers: 14,4 mg/m³

PNEC:

N-methyl-2-pyrrolidone

Index No. 606-021-00-7 / EC No. 212-828-1 / CAS No. 872-50-4

PNEC aquatic, freshwater: 0,25 mg/L

PNEC aquatic, marine water: 0,025 mg/L

PNEC aquatic, intermittent release: 5 mg/L

PNEC sediment, freshwater: 0,805 mg/kg

PNEC sediment, marine water: 0,109 mg/kg

PNEC, soil: 0,07 mg/kg

PNEC sewage treatment plant (STP): 10 mg/L

8.2. Exposure controls

Provide good ventilation. This can be achieved with local or room suction. If this should not be sufficient to keep aerosol and solvent vapour concentration below the exposure limit values, a suitable respiratory protection must be used.

Personal protection equipment

Respiratory protection

If concentration of solvents is beyond the occupational exposure limit values, approved and suitable respiratory protection must be used. Use only respiratory protection equipment with CE-symbol including four digit test number.

Hand protection

For prolonged or repeated handling the following glove material must be used: NBR (Nitrile rubber)

Thickness of the glove material > 0,4 mm ; Breakthrough time: > 480 min.

Observe the instructions and details for use, storage, maintenance and replacement provided by the protective glove manufacturer. Penetration time of glove material depending on intensity and duration of exposure to skin. Recommended glove articles EN ISO 374

Barrier creams can help protecting exposed skin areas. In no case should they be used after contact.

Eye/face protection

Wear closely fitting protective glasses in case of splashes.

Body protection

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Wear antistatic clothing of natural fibers (cotton) or heat resistant synthetic fibers.

Protective measures

After contact clean skin thoroughly with water and soap or use appropriate cleanser.

Environmental exposure controls

Do not allow to enter into surface water or drains. See section 7. No additional measures necessary.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties *

Physical state:	Liquid
Colour:	refer to label
Odour:	characteristic
Odour threshold:	not applicable
Melting point/freezing point:	not applicable
Initial boiling point and boiling range:	150 °C Source: Hydrocarbons, C9-C11, n-alkanes, iso-alkanes, cyclic compounds, <2% aromatics
Flammability:	Flammable liquid and vapour.
Lower and upper explosion limit:	
Lower explosion limit:	0.8 Vol-%
Upper explosion limit:	7 Vol-% Source: Hydrocarbons, C9-C11, n-alkanes, iso-alkanes, cyclic compounds, <2% aromatics
Flash point:	40 °C Method: DIN 53213
Auto-ignition temperature:	240 °C Source: Hydrocarbons, C10-C13, n-alkanes, iso-alkanes, cyclic, <2% aromatics
Decomposition temperature:	not applicable
pH at 20 °C:	not applicable
Cinematic viscosity (40°C):	< 80 mm²/s
Viscosity at 20 °C:	18 - 22 sec DIN 4 mm
Solubility(ies):	
Water solubility at 20 °C:	insoluble
Partition coefficient: n-octanol/water:	see section 12
Vapour pressure at 20 °C:	5 mbar Source: Hydrocarbons, C9-C11, n-alkanes, iso-alkanes, cyclic compounds, <2% aromatics
Density and/or relative density:	
Density at 20 °C:	0.88 g/cm³
Relative vapour density:	not applicable
particle characteristics:	not applicable

9.2. Other information *

Solid content:	43 weight-%
solvent content:	
Organic solvents:	56 weight-%
Water:	0 weight-%

SECTION 10: Stability and reactivity

10.1. Reactivity

No information available.

10.2. Chemical stability

Stable when applying the recommended regulations for storage and handling. Further information on correct storage: refer to

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section 7.

10.3. Possibility of hazardous reactions

Keep away from strong acids, strong bases and strong oxidizing agents to avoid exothermic reactions.

10.4. Conditions to avoid

Hazardous decomposition byproducts may form with exposure to high temperatures.

10.5. Incompatible materials

not applicable

10.6. Hazardous decomposition products

Hazardous decomposition byproducts may form with exposure to high temperatures, e.g.: carbon dioxide, carbon monoxide, smoke, nitrogen oxides.

SECTION 11: Toxicological information

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

Acute toxicity

Hydrocarbons, C10-C13, n-alkanes, iso-alkanes, cyclic, <2% aromatics

oral, LD50, Rat: > 15000 mg/kg

dermal, LD50, Rabbit: > 3160 mg/kg

Hydrocarbons, C9-C11, n-alkanes, iso-alkanes, cyclic compounds, <2% aromatics

oral, LD50, Rat: > 5000 mg/kg

Method: OECD 401

dermal, LD50, Rabbit: > 5000 mg/kg

Method: OECD 402

inhalative (dust and mist), LC50, Rat: > 5 mg/L (4 h)

Method: OECD 403

N-methyl-2-pyrrolidone

oral, LD50, Rat: 4150 mg/kg

Method: OECD 401

dermal, LD50, Rat: > 5000 mg/kg

Method: OECD 402

inhalative (vapours), LC50, Rat: > 5,1 mg/L (4 h)

Method: OECD 403

inhalative (dust and mist), LC50, Rat (4 h)

Hydrocarbons, C9, aromatics, <0.1% benzene

oral, LD50, Rat: 3492 mg/kg

dermal, LD50, Rabbit: > 3160 mg/kg

inhalative (vapours), LC50, Rat: 6 mg/m³ 10 (4 h)

Skin corrosion/irritation; Serious eye damage/eye irritation

Hydrocarbons, C10-C13, n-alkanes, iso-alkanes, cyclic, <2% aromatics

Skin (4 h)

Based on available data, the classification criteria are not met.

eyes

Based on available data, the classification criteria are not met.

Hydrocarbons, C9-C11, n-alkanes, iso-alkanes, cyclic compounds, <2% aromatics

Skin (4 h)

Repeated exposure may cause skin dryness or cracking.

eyes

No data available

N-methyl-2-pyrrolidone

Skin, Rabbit (4 h)

Method: OECD 404

Causes skin irritation.

eyes, Rabbit

Method: OECD 405

Causes serious eye irritation.

Hydrocarbons, C9, aromatics, <0.1% benzene

Skin (4 h)

Method: OECD 404

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Not to be classified as skin etching/irritant.
eyes
Method: OECD 405
Not to be classified as severe eye damage or eye irritation.

Respiratory or skin sensitisation

Hydrocarbons, C10-C13, n-alkanes, iso-alkanes, cyclic, <2% aromatics
Skin: ; Evaluation Based on available data, the classification criteria are not met.
Respiratory system: ; Evaluation Based on available data, the classification criteria are not met.

Hydrocarbons, C9-C11, n-alkanes, iso-alkanes, cyclic compounds, <2% aromatics
Skin:
Based on available data, the classification criteria are not met.
Respiratory system:
No data available

N-methyl-2-pyrrolidone
Skin:
Not to be classified as an inhalation or skin allergen.
Respiratory system:
Not to be classified as an inhalation or skin allergen.

Hydrocarbons, C9, aromatics, <0.1% benzene
Skin:
Method: OECD 406
Not to be classified as skin sensitising.
Respiratory system:
No data available

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Hydrocarbons, C10-C13, n-alkanes, iso-alkanes, cyclic, <2% aromatics
Germ cell mutagenicity; Evaluation Based on available data, the classification criteria are not met.
Carcinogenicity; Evaluation Based on available data, the classification criteria are not met.
Reproductive toxicity; Evaluation Based on available data, the classification criteria are not met.

Hydrocarbons, C9-C11, n-alkanes, iso-alkanes, cyclic compounds, <2% aromatics
Germ cell mutagenicity
No data available
Carcinogenicity
No data available
Reproductive toxicity
No data available
Lactation
No data available

N-methyl-2-pyrrolidone
Reproductive toxicity; Evaluation May cause harm to the unborn child.
Method: OECD 416
oral
teratogenicity; Evaluation May cause harm to the unborn child.
Genotoxicity in vivo; Evaluation negative
Method: OECD 474
In vivo microkernel test; mouse; oral; bone marrow
Genotoxicity in vivo; Evaluation negative
Method: OECD 475
Chromosome aberration test; mouse ; oral; bone marrow
Genotoxicity in vitro; Evaluation negative
Method: OECD 471 (Ames test)
Salmonella typhimurium
Genotoxicity in vitro; Evaluation negative
Method: OECD 476
In vitro gene mutation test on mammalian cells
Genotoxicity in vitro; Evaluation negative
Method: OECD 482
Unscheduled DNA synthesis

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Hydrocarbons, C9, aromatics, <0.1% benzene
Germ cell mutagenicity
Not to be classified as germ cell mutagen (mutagen).
Carcinogenicity
There are in vivo studies that indicate positive results of kidney cancer.
Reproductive toxicity
Does not qualify as a carcinogen.
In vitro mutagenicity; Evaluation positive

STOT-single exposure; STOT-repeated exposure

May cause drowsiness or dizziness.

Hydrocarbons, C10-C13, n-alkanes, iso-alkanes, cyclic, <2% aromatics
Specific target organ toxicity (single exposure) Evaluation Based on available data, the classification criteria are not met.
Specific target organ toxicity (repeated exposure) Evaluation Based on available data, the classification criteria are not met.

Hydrocarbons, C9-C11, n-alkanes, iso-alkanes, cyclic compounds, <2% aromatics
Specific target organ toxicity (single exposure)
May cause drowsiness or dizziness.; After absorption: cardiovascular disorders, cyanosis, agitation After absorption of large quantities: Drowsiness, CNS disorders Other dangerous properties cannot be excluded.
Specific target organ toxicity (repeated exposure)
No data available

N-methyl-2-pyrrolidone
Specific target organ toxicity (single exposure)
May cause respiratory irritation.; Target organs: Respiratory system
Specific target organ toxicity (repeated exposure)
Not to be classified as specific target organ toxic (repeated exposure).

Hydrocarbons, C9, aromatics, <0.1% benzene
Specific target organ toxicity (single exposure)
May cause respiratory irritation and depression of central nervous system with drowsiness, dizziness, weakness, loss of consciousness, nausea and headache.
Specific target organ toxicity (repeated exposure)
No data available

Aspiration hazard

Hydrocarbons, C10-C13, n-alkanes, iso-alkanes, cyclic, <2% aromatics
Aspiration hazard; Evaluation May be fatal if swallowed and enters airways.

Hydrocarbons, C9-C11, n-alkanes, iso-alkanes, cyclic compounds, <2% aromatics
Aspiration hazard
Aspiration can lead to pulmonary edema and pneumonia.; May be fatal if swallowed and enters airways.

N-methyl-2-pyrrolidone
Aspiration hazard
Not to be classified as aspirational.

Hydrocarbons, C9, aromatics, <0.1% benzene
Aspiration hazard
May be fatal if swallowed and enters airways.

Practical experience/human evidence

Inhaling of solvent components above the MWC-value can lead to health damage, e.g. irritation of the mucous membrane and respiratory organs, as well as damage to the liver, kidneys and the central nerve system. Indications for this are: headache, dizziness, fatigue, amyosthenia, drowsiness, in serious cases: unconsciousness. Solvents may cause some of the aforementioned effects through skin resorption. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and/or absorption through skin. Splashing may cause eye irritation and reversible damage.

Overall assessment on CMR properties

EC No. CAS No.	Designation	Classification according to Regulation (EC) No 1272/2008 [CLP]
212-828-1 872-50-4	N-methyl-2-pyrrolidone	Repr. 1B

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270-066-5 Fatty acid C6-C19, cobalt salt
68409-81-4

Repr. 1B

11.2. Information on other hazards

Endocrine disrupting properties

No information available.

SECTION 12: Ecological information

Classification according to Regulation (EC) No 1272/2008 [CLP]
Do not allow to enter into surface water or drains.

12.1. Toxicity

Hydrocarbons, C10-C13, n-alkanes, iso-alkanes, cyclic, <2% aromatics

Fish toxicity, LC50, Pimephales promelas (fathead minnow): 220 mg/L (96 h)

Daphnia toxicity, LC50, crangon crangon: 4,3 mg/L (96 h)

Hydrocarbons, C9-C11, n-alkanes, iso-alkanes, cyclic compounds, <2% aromatics

Daphnia toxicity, NOEC, Oncorhynchus mykiss (Rainbow trout): 0,21 mg/L (28 d)

N-methyl-2-pyrrolidone

Fish toxicity, LC50, Oncorhynchus mykiss (Rainbow trout): > 500 mg/L (96 h)

Algae toxicity, ErC50: 600,5 mg/L (72 h)

Daphnia toxicity, EC50, Daphnia magna (Big water flea): > 1000 mg/L (24 h)

Method: DIN 38412

Static test

Algae toxicity, EC50, Desmodesmus subspicatus: > 500 mg/L (72 h)

Method: DIN 38412

Static test

Bacteria toxicity, EC50, Activated sludge: > 600 mg/L (30 min)

Method: ISO 8192

Static test

Hydrocarbons, C9, aromatics, <0.1% benzene

Fish toxicity, LC50, Oncorhynchus mykiss (Rainbow trout): 9,2 mg/L (96 h)

Daphnia toxicity, EC50, Daphnia magna: 1,6 mg/L (48 h)

Long-term Ecotoxicity

Harmful to aquatic life with long lasting effects.

Hydrocarbons, C9-C11, n-alkanes, iso-alkanes, cyclic compounds, <2% aromatics

Daphnia toxicity, NOEC, Daphnia magna (Big water flea): 0,02 mg/L (21 d)

Method: OECD 211

N-methyl-2-pyrrolidone

Daphnia toxicity, NOEC, Daphnia magna: 12,5 mg/L (21 d)

Method: OECD 211

Daphnia toxicity, EC50, Daphnia magna: > 1000 mg/L (24 h)

12.2. Persistence and degradability

Hydrocarbons, C10-C13, n-alkanes, iso-alkanes, cyclic, <2% aromatics

Biodegradation: Evaluation Not readily biodegradable (according to OECD criteria)

Hydrocarbons, C9-C11, n-alkanes, iso-alkanes, cyclic compounds, <2% aromatics

Biodegradation: Evaluation Not readily biodegradable (according to OECD criteria)

N-methyl-2-pyrrolidone

Biodegradation: 73 percent (28 d); Evaluation Readily biodegradable (according to OECD criteria).

Method: OECD 301C

aerobic

Hydrocarbons, C9, aromatics, <0.1% benzene

Biodegradation: Evaluation Readily biodegradable (according to OECD criteria).

12.3. Bioaccumulative potential

Hydrocarbons, C10-C13, n-alkanes, iso-alkanes, cyclic, <2% aromatics

Partition coefficient: n-octanol/water:

No further relevant information available.

Hydrocarbons, C9-C11, n-alkanes, iso-alkanes, cyclic compounds, <2% aromatics

Distribution coefficient n-octanol/water (log KOW):

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No data available

N-methyl-2-pyrrolidone

Distribution coefficient n-octanol/water (log KOW): -0,46 ; Evaluation Does not significantly accumulate in organisms.

Method: OECD 107

Hydrocarbons, C9, aromatics, <0.1% benzene

Distribution coefficient n-octanol/water (log KOW): 3,7 - 4,5

12.4. Mobility in soil

Hydrocarbons, C10-C13, n-alkanes, iso-alkanes, cyclic, <2% aromatics

soil:

No further relevant information available.

Hydrocarbons, C9-C11, n-alkanes, iso-alkanes, cyclic compounds, <2% aromatics

soil:

No data available

N-methyl-2-pyrrolidone

soil:

The adsorption coefficient standardized to organic carbon (Organic Carbon) 0.87

Hydrocarbons, C9, aromatics, <0.1% benzene

soil:

No data available

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6. Endocrine disrupting properties

No information available.

12.7. Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Appropriate disposal / Product Recommendation

Do not allow to enter into surface water or drains. This material and its container must be disposed of in a safe way. Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste. Dispose of waste according to applicable legislation.

List of proposed waste codes/waste designations in accordance with EWC

080111* Waste paint and varnish containing organic solvents or other dangerous substances

*Hazardous waste according to Directive 2008/98/EC (waste framework directive).

Appropriate disposal / Package Recommendation

Non-contaminated packages may be recycled. Vessels not properly emptied are special waste.

SECTION 14: Transport information

14.1. UN number or ID number

UN 1263

14.2. UN proper shipping name

Land transport (ADR/RID): Paint
 Sea transport (IMDG): PAINT
 Air transport (ICAO-TI / IATA-DGR): Paint

14.3. Transport hazard class(es)

3

14.4. Packing group

III

14.5. Environmental hazards

Land transport (ADR/RID) not applicable

Marine pollutant not applicable

14.6. Special precautions for user

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according to Regulation (EC) No. 1907/2006 (REACH)
according to Regulation (EU) 2020/878

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Transport always in closed, upright and safe containers. Make sure that persons transporting the product know what to do in case of an accident or leakage.

Advices on safe handling: see parts 6 - 8

Further information

Land transport (ADR/RID)

Tunnel restriction code D/E

Sea transport (IMDG)

EmS-No. F-E, S-E

14.7. Maritime transport in bulk according to IMO instruments

No transport as bulk according IBC - Code.

SECTION 15: Regulatory information

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

EU legislation

Directive 2010/75/EU on industrial emissions [Industrial Emissions Directive]

VOC-value (in g/L): 498

National regulations

Restrictions of occupation

Observe employment restrictions under the Maternity Protection Directive 92/85/EEC or stricter national regulations, if applicable.

Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC) or stricter national regulations, if applicable.

15.2. Chemical Safety Assessment

For the following substances of this mixture a chemical safety assessment has been carried out:

EC No. CAS No.	Designation	REACH No.
919-857-5	Hydrocarbons, C9-C11, n-alkanes, iso-alkanes, cyclic compounds, <2% aromatics	01-2119463258-33
918-481-9	Hydrocarbons, C10-C13, n-alkanes, iso-alkanes, cyclic, <2% aromatics	01-2119457273-39
918-668-5	Hydrocarbons, C9, aromatics, <0.1% benzene	01-2119455851-35
212-828-1	N-methyl-2-pyrrolidone	01-2119472430-46
872-50-4		
271-378-4	FATTY C6-C19, ZINC SOAP	01-2119979093-30
68551-44-0		

SECTION 16: Other information

Full text of classification in section 3

STOT SE 3 / H336	STOT-single exposure	May cause drowsiness or dizziness.
Asp. Tox. 1 / H304	Aspiration hazard	May be fatal if swallowed and enters airways.
Flam. Liq. 3 / H226	Flammable liquids	Flammable liquid and vapour.
Aquatic Chronic 2 / H411	Hazardous to the aquatic environment	Toxic to aquatic life with long lasting effects.
Repr. 1B / H360	Reproductive toxicity	May damage the unborn child.
STOT SE 3 / H335	STOT-single exposure	May cause respiratory irritation.
Skin Irrit. 2 / H315	Skin corrosion/irritation	Causes skin irritation.
Eye Irrit. 2 / H319	Serious eye damage/eye irritation	Causes serious eye irritation.
Repr. 2 / H361	Reproductive toxicity	Suspected of damaging fertility. Suspected of damaging the unborn child.
Aquatic Chronic 3 / H412	Hazardous to the aquatic environment	Harmful to aquatic life with long lasting effects.
Acute Tox. 4 / H302	Acute toxicity (oral)	Harmful if swallowed.
Skin Sens. 1 / H317	Respiratory or skin sensitisation	May cause an allergic skin reaction.
Repr. 1B / H360	Reproductive toxicity	May damage fertility.

Classification procedure

Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

Flam. Liq. 3 Flammable liquids On basis of test data.

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STOT SE 3	STOT-single exposure	Calculation method.
Aquatic Chronic 3	Hazardous to the aquatic environment	Calculation method.

Abbreviations and acronyms

ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
OEL	Occupational Exposure Limit Value
BLV	Biological Limit Value
CAS	Chemical Abstracts Service
CLP	Classification, Labelling and Packaging
CMR	Carcinogenic, Mutagenic and Reprotoxic
DIN	German Institute for Standardization / German industrial standard
DNEL	Derived No-Effect Level
EAKV	European Waste Catalogue Directive
EC	Effective Concentration
EC	European Community
EN	European Standard
IATA-DGR	International Air Transport Association – Dangerous Goods Regulations
IBC Code	International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
ICAO-TI	International Civil Aviation Organization Technical Instructions for the Safe Transport of Dangerous Goods by Air
IMDG Code	International Maritime Code for Dangerous Goods
ISO	International Organization for Standardization
LC	Lethal Concentration
LD	Lethal Dose
MARPOL	Maritime Pollution: The International Convention for the Prevention of Pollution from Ships
OECD	Organisation for Economic Cooperation and Development
PBT	persistent, bioaccumulative, toxic
PNEC	Predicted No Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
UN	United Nations
VOC	Volatile Organic Compounds
vPvB	very persistent and very bioaccumulative

Further information

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

The information supplied on this safety data sheet complies with our current level of knowledge as well as with national and EU regulations. Without written approval, the product must not be used for purposes different from those mentioned in section 1. It is always the user's duty to take any necessary measures for meeting the requirements laid down by local rules and regulations. The details in this safety data sheet describe the safety requirements of our product and are not to be regarded as guaranteed attributes of the product.

* Data changed compared with the previous version