

Safety Data Sheet
according to Regulation (EC) No. 1907/2006 (REACH)
according to Regulation (EU) 2015/830



Article No.: 373XX0
Print date: 22.05.2018
Version: 1.21

PFH Covering Lacquer
Revision date: 22.05.2018
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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. **product identifiers**

Article No. (manufacturer/supplier) 373XX0
Identification of the substance or mixture PFH Covering Lacquer
Art.no. 373000, 373900
all colours, all gloss values

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

Relevant identified uses:

Coating (Paint, Varnish).

Uses advised against:

Do not use for products which come into contact with the food stuffs.

1.3. **Details of the supplier of the safety data sheet**

supplier (manufacturer/importer/downstream user/distributor)

Heinrich König & Co.KG
An der Rosenhelle 5 Telephone: +49 6101 5360 0
D-61138 Niederdorfelden Telefax: +49 6101 5360 11

Dept. responsible for information:

Laboratory Telephone: +49 6101 5360 71
Only available during office hours: Mon - Thurs 08:00 to 16:00
Friday 08:00 - 12:30

E-mail (competent person) SDB@heinrich-koenig.de

1.4. **Emergency telephone number**

Emergency telephone number Emergency CONTACT (24-Hour-Number): GBK
GmbH +49 (0)6132-84463

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].

Aerosol 1 / H222	Aerosol	Extremely flammable aerosol.
Aerosol 1 / H229	Aerosol	Pressurised container: May burst if heated.
Eye Irrit. 2 / H319	Serious eye damage/eye irritation	Causes serious eye irritation.
STOT SE 3 / H336	Specific target organ toxicity (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



Danger

Hazard statements

H222 Extremely flammable aerosol.
H229 Pressurised container: May burst if heated.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211 Do not spray on an open flame or other ignition source.
P251 Do not pierce or burn, even after use.
P261 Avoid breathing vapours.
P264 Wash hands thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.

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P273	Avoid release to the environment.
P280	Wear protective gloves and eye/face protection.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P337 + P313	If eye irritation persists: Get medical advice/attention.
P405	Keep locked up.
P410 + P412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
P501.2	Dispose of contents/container via the national/local hazardous waste disposal.

contains:

n-butyl acetate

Supplemental Hazard information (EU)

EUH066 Repeated exposure may cause skin dryness or cracking.

2.3. **Other hazards**

SECTION 3: Composition / information on ingredients

3.2. **Mixtures**

Product description / chemical characterization

Description Aerosol

Hazardous ingredients

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

EC No. CAS No. INDEX No.	REACH No. Chemical name classification // Remark	Wt %
204-065-8 115-10-6 603-019-00-8	01-2119472128-37-xxxx dimethylether Flam. Gas 1 H220 / compressed gas H280	25 < 50
204-658-1 123-86-4 607-025-00-1	01-2119485493-29-xxxx n-butyl acetate Flam. Liq. 3 H226 / STOT SE 3 H336	10 < 20
203-550-1 108-10-1 606-004-00-4 918-668-5	01-2119473980-30-xxxx 4-methylpentan-2-one Flam. Liq. 2 H225 / Acute Tox. 4 H332 / Eye Irrit. 2 H319 / STOT SE 3 H335 01-2119455851-35-xxxx Hydrocarbons, C9, aromatics Flam. Liq. 3 H226 / Asp. Tox. 1 H304 / STOT SE 3 H335 / STOT SE 3 H336 / Aquatic Chronic 2 H411	10 < 20 5 < 7
201-159-0 78-93-3 606-002-00-3 203-603-9 108-65-6 607-195-00-7	01-2119457290-43-xxxx butanone Flam. Liq. 2 H225 / Eye Irrit. 2 H319 / STOT SE 3 H336 01-2119475791-29-xxxx 2-methoxy-1-methylethyl acetate Flam. Liq. 3 H226	3 < 5 1 < 2,5

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

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use solvents or thinners.

After eye contact

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

After 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**

SECTION 5: Firefighting measures

5.1. **Extinguishing media**

Suitable extinguishing media:

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

Extinguishing media which must not be used for safety reasons:

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.

Precautions against fire and explosion:

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

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electrostatic charges (TRBS 2153)".

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:

dimethyl ether

INDEX No. 603-019-00-8 / EC No. 204-065-8 / CAS No. 115-10-6

TWA: 766 mg/m³; 400 ppm

STEL: 958 mg/m³; 500 ppm

n-butyl acetate

INDEX No. 607-025-00-1 / EC No. 204-658-1 / CAS No. 123-86-4

TWA: 724 mg/m³; 150 ppm

STEL: 966 mg/m³; 200 ppm

4-methylpentan-2-one

INDEX No. 606-004-00-4 / EC No. 203-550-1 / CAS No. 108-10-1

TWA: 208 mg/m³; 50 ppm

STEL: 416 mg/m³; 100 ppm

butanone

INDEX No. 606-002-00-3 / EC No. 201-159-0 / CAS No. 78-93-3

TWA: 600 mg/m³; 200 ppm

STEL: 899 mg/m³; 300 ppm

2-methoxy-1-methylethyl acetate

INDEX No. 607-195-00-7 / EC No. 203-603-9 / CAS No. 108-65-6

TWA: 274 mg/m³; 50 ppm

STEL: 548 mg/m³; 100 ppm

Additional information

TWA : long-term occupational exposure limit value

STEL : short-term occupational exposure limit value

Ceiling : peak limitation

DNEL:

dimethyl ether

INDEX No. 603-019-00-8 / EC No. 204-065-8 / CAS No. 115-10-6

DNEL long-term inhalative (systemic), Workers: 1894 mg/m³

DNEL long-term inhalative (systemic), Consumer: 471 mg/m³

4-methylpentan-2-one

INDEX No. 606-004-00-4 / EC No. 203-550-1 / CAS No. 108-10-1

DNEL long-term dermal (systemic), Workers: 11,8 mg/kg

DNEL acute inhalative (local), Workers: 208 mg/m³

DNEL acute inhalative (systemic), Workers: 208 mg/m³

DNEL long-term inhalative (local), Workers: 83 mg/m³

DNEL long-term inhalative (systemic), Workers: 83 mg/m³

DNEL long-term oral (repeated), Consumer: 4,2 mg/kg

DNEL long-term dermal (systemic), Consumer: 4,2 mg/kg

DNEL acute inhalative (local), Consumer: 155,2 mg/m³

DNEL acute inhalative (systemic), Consumer: 155,2 mg/m³

DNEL long-term inhalative (local), Consumer: 14,7 mg/m³

DNEL long-term inhalative (systemic), Consumer: 14,7 mg/m³

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Hydrocarbons, C9, aromatics
EC No. 918-668-5

DNEL long-term dermal (systemic), Workers: 25 mg/kg
DNEL long-term inhalative (systemic), Workers: 150 mg/m³
DNEL long-term oral (repeated), Consumer: 11 mg/kg
DNEL long-term dermal (systemic), Consumer: 11 mg/kg
DNEL long-term inhalative (systemic), Consumer: 32 mg/m³

butanone

INDEX No. 606-002-00-3 / EC No. 201-159-0 / CAS No. 78-93-3

DNEL long-term dermal (systemic), Workers: 1161 mg/kg
DNEL long-term inhalative (systemic), Workers: 600 mg/m³
DNEL long-term oral (repeated), Consumer: 31 mg/kg
DNEL acute dermal, short-term (local), Consumer: 412 mg/kg
DNEL long-term dermal (systemic), Consumer: 206 mg/kg
DNEL long-term inhalative (systemic), Consumer: 106 mg/m³

n-butyl acetate

INDEX No. 607-025-00-1 / EC No. 204-658-1 / CAS No. 123-86-4

DNEL acute dermal, short-term (systemic), Workers: 11 mg/kg
DNEL long-term dermal (systemic), Workers: 7 mg/kg
DNEL acute inhalative (local), Workers: 600 mg/m³
DNEL acute inhalative (systemic), Workers: 600 mg/m³
DNEL long-term inhalative (local), Workers: 300 mg/m³
DNEL long-term inhalative (systemic), Workers: 48 mg/m³
DNEL short-term oral (acute), Consumer: 2 mg/kg
DNEL long-term oral (repeated), Consumer: 2 mg/kg
DNEL acute dermal, short-term (systemic), Consumer: 6 mg/kg
DNEL long-term dermal (systemic), Consumer: 3,4 mg/kg
DNEL acute inhalative (local), Consumer: 300 mg/m³
DNEL acute inhalative (systemic), Consumer: 300 mg/m³
DNEL long-term inhalative (local), Consumer: 35,7 mg/m³
DNEL long-term inhalative (systemic), Consumer: 12 mg/m³

PNEC:

dimethyl ether

INDEX No. 603-019-00-8 / EC No. 204-065-8 / CAS No. 115-10-6

PNEC sediment, freshwater: 0,681 mg/kg
PNEC, soil: 0,045 mg/kg
PNEC sewage treatment plant (STP): 160 mg/l

4-methylpentan-2-one

INDEX No. 606-004-00-4 / EC No. 203-550-1 / CAS No. 108-10-1

PNEC aquatic, freshwater: 0,6 mg/l
PNEC aquatic, marine water: 0,06 mg/l
PNEC aquatic, intermittent release: 1,5 mg/l
PNEC sediment, freshwater: 8,27 mg/kg
PNEC sediment, marine water: 0,83 mg/kg
PNEC, soil: 1,3 mg/kg
PNEC sewage treatment plant (STP): 27,5 mg/l

butanone

INDEX No. 606-002-00-3 / EC No. 201-159-0 / CAS No. 78-93-3

PNEC aquatic, freshwater: 55,8 mg/l
PNEC aquatic, marine water: 55,8 mg/l
PNEC aquatic, intermittent release: 55,8 mg/l
PNEC sediment, freshwater: 284,7 mg/kg
PNEC sediment, marine water: 284,7 mg/kg
PNEC, soil: 22,5 mg/kg
PNEC sewage treatment plant (STP): 709 mg/l

n-butyl acetate

INDEX No. 607-025-00-1 / EC No. 204-658-1 / CAS No. 123-86-4

PNEC aquatic, freshwater: 0,18 mg/l
PNEC aquatic, marine water: 0,018 mg/l

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PNEC aquatic, intermittent release: 0,36 mg/l
PNEC sediment, freshwater: 0,981 mg/kg
PNEC sediment, marine water: 0,0981 mg/kg
PNEC, soil: 0,0903 mg/kg

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.

Occupational exposure controls

Respiratory protection

If concentration of solvents is beyond the occupational exposure limit values, approved and suitable respiratory protection must be used. Observe the wear time limits according GefStoffV in combination with the rules for using respiratory protection apparatus (BGR 190). 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: Butyl caoutchouc (butyl rubber)

Thickness of the glove material > 0,4 mm ; Breakthrough time (maximum wearing 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 DIN EN 374

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

Eye protection

Wear closely fitting protective glasses in case of splashes.

Protective clothing

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 chapter 7. No additional measures necessary.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

*

Appearance:

Physical state:

Liquid

Colour:

refer to label

Odour:

Preparations containing solvent

Odour threshold:

not applicable

pH at 20 °C:

N.A.

Melting point/freezing point:

n.a.

Initial boiling point and boiling range:

-25 °C

Method: calculated.

Source: dimethyl ether

Flash point:

-41 °C

Method: calculated.

Evaporation rate:

not applicable

Flammability (solid, gas):

burning time (s):

not applicable

Upper/lower flammability or explosive limits:

Lower explosion limit:

2,38 Vol-%

Method: calculated.

Upper explosion limit:

26,2 Vol-%

Method: calculated.

Source: dimethyl ether

Vapour pressure at 20 °C:

2318,4447 mbar

Method: calculated.

Vapour density:

not applicable

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Relative density:	
Density at 20 °C:	0,80 g/cm³ Method: calculated.
Solubility(ies):	
Water solubility (g/L) at 20 °C:	The study does not need to be conducted because the substance is known to be insoluble in water.
Partition coefficient: n-octanol/water:	see section 12
Auto-ignition temperature:	226 °C Method: calculated. Source: dimethyl ether
Decomposition temperature:	not applicable
Viscosity at 20 °C:	8 s 4 mm Method: DIN 53211
Explosive properties:	not applicable
Oxidising properties:	not applicable
9.2. Other information	
Solid content (%):	14,46 Wt %
solvent content:	
Organic solvents:	86 Wt %
Water:	0 Wt %

SECTION 10: Stability and reactivity

10.1. Reactivity

10.2. Chemical stability

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

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

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

No data on preparation itself available.

11.1. Information on toxicological effects

Acute toxicity

2-methoxy-1-methylethyl acetate

oral, LD50, Rat: 8532 mg/kg

dermal, LD50, Rabbit: > 5000 mg/kg

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

dimethyl ether

oral, LD50, Rat: > 10000 mg/kg

Based on available data the classification criteria are not met.

4-methylpentan-2-one

oral, LD50, Rat: > 2193 mg/kg

Method: OECD 401

dermal, LD50, Rat: > 2000 mg/kg

Method: OECD 402

inhalative (vapours), LC50, Rat: 8,3 - 16,6 mg/l (4 h)

Harmful by inhalation.

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Hydrocarbons, C9, aromatics
oral, LD50, Rat: 3592 mg/kg
Method: OECD 401
dermal, LD50, Rabbit: > 3160 mg/kg
Method: OECD 402
Based on available data, the classification criteria are not met.

butanone
oral, LD50, Rat: > 2193 mg/kg
Method: OECD 423
dermal, LD50, Rabbit: > 5000 mg/kg
Method: OECD 402
inhalative (vapours), LC50, Rat: 34 mg/l (4 h)
Based on available data, the classification criteria are not met.

n-butyl acetate
oral, LD50, Rat: 10760 mg/kg
Method: OECD 423
dermal, LD50, Rabbit: > 14112 mg/kg
Method: OECD 402
inhalative (vapours), LC50, Rat: 23,4 mg/l (4 h)
Method: OECD 403
Based on available data, the classification criteria are not met.

skin corrosion/irritation; Serious eye damage/eye irritation

4-methylpentan-2-one
eyes
Causes serious eye irritation.

butanone
eyes, Rabbit
Method: OECD 405
Causes serious eye irritation.

Respiratory or skin sensitisation

Toxicological data are not available.

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Toxicological data are not available.

Specific target organ toxicity

4-methylpentan-2-one
Specific target organ toxicity (single exposure), Irritation:
May cause respiratory irritation.

Hydrocarbons, C9, aromatics
Specific target organ toxicity (single exposure), Irritation:
May cause respiratory irritation.
Specific target organ toxicity (single exposure), drowsiness:
May cause drowsiness or dizziness.

butanone
Specific target organ toxicity (single exposure), drowsiness:
May cause drowsiness or dizziness.

n-butyl acetate
Specific target organ toxicity (single exposure), drowsiness:
May cause drowsiness or dizziness.

Aspiration hazard

Hydrocarbons, C9, aromatics
Aspiration hazard
May be fatal if swallowed and enters airways.

Practical experience/human evidence

Other observations:

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,

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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

The ingredients in this mixture do not meet the criteria for classification as CMR category 1A or 1B according to CLP.

SECTION 12: Ecological information

overall evaluation

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

There is no information available on the preparation itself.

Do not allow to enter into surface water or drains.

12.1. Toxicity

2-methoxy-1-methylethyl acetate

Fish toxicity, LC50, Oncorhynchus mykiss (Rainbow trout): 100 - 180 mg/l (96 h)

Method: OECD 203

Daphnia toxicity, EC50, Daphnia magna (Big water flea): > 500 mg/l (48 h)

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

4-methylpentan-2-one

Fish toxicity, LC50: > 179 mg/l (96 h)

Method: OECD 202

Daphnia toxicity, EC50, Daphnia magna: > 200 mg/l (48 h)

Method: OECD 202

Bacteria toxicity, EC50, Pseudomonas putida: 275 mg/l (16 h)

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

Hydrocarbons, C9, aromatics

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

Daphnia toxicity, EC50, Daphnia magna (Big water flea): 3,2 mg/l (48 h)

Method: OECD 202

Algae toxicity, ErC50, Pseudokirchneriella subcapitata: 2,6 - 2,9 mg/l (72 h)

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

butanone

Fish toxicity, LC50, Pimephales promelas (fathead minnow): 2990 mg/l (96 h)

Method: OECD 203

Daphnia toxicity, EC50, Daphnia magna (Big water flea): 308 mg/l (48 h)

Method: OECD 202

Algae toxicity, ErC50, Pseudokirchneriella subcapitata: 1972 mg/l (72 h)

Method: OECD 201

Bacteria toxicity, EC0, Pseudomonas putida: 1150 mg/l (16 h)

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

n-butyl acetate

Fish toxicity, LC50, Pimephales promelas (fathead minnow): 18 mg/l (96 h)

Method: OECD 203

Daphnia toxicity, EC50, Daphnia magna (Big water flea): 44 mg/l (48 h)

Method: OECD 202

Algae toxicity, EC50, Desmodesmus subspicatus.: 397 mg/l (72 h)

Method: OECD 201

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

Long-term Ecotoxicity

4-methylpentan-2-one

Daphnia toxicity, NOEC, Daphnia magna (Big water flea): 30 - 35 mg/l (21 D)

Method: OECD 211

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

Hydrocarbons, C9, aromatics

Fish toxicity, LC50: (96 h)

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

12.2. Persistence and degradability

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2-methoxy-1-methylethyl acetate
Biodegradation: 100 % (8 D)
Readily biodegradable (according to OECD criteria).

4-methylpentan-2-one
Biodegradation: 83 % (28 D)
Method: OECD 301 F
Readily biodegradable (according to OECD criteria).

Hydrocarbons, C9, aromatics
Biodegradation:
Readily biodegradable (according to OECD criteria).

butanone
Biodegradation: 98 % (28 d)
Readily biodegradable (according to OECD criteria).

n-butyl acetate
Biodegradation, aerobic: 83 % (28 D)
Method: OECD 301D
Readily biodegradable (according to OECD criteria).

12.3. Bioaccumulative potential

2-methoxy-1-methylethyl acetate
Partition coefficient: n-octanol/water: 0,43
Method: Log KOC

dimethyl ether
Partition coefficient: n-octanol/water: < 4

4-methylpentan-2-one
Partition coefficient: n-octanol/water: 1,31 0 - 1,9

butanone
Partition coefficient: n-octanol/water: 0,3

n-butyl acetate
Partition coefficient: n-octanol/water: 2,3
Method: OECD 117

12.4. Mobility in soil

Toxicological data are not 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. Other adverse effects

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.

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

150110 packaging containing residues of or contaminated by dangerous substances

packaging

Recommendation

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

SECTION 14: Transport information

14.1. UN number

UN 1950

14.2. UN proper shipping name

Land transport (ADR/RID): AEROSOLS, flammable

Sea transport (IMDG): AEROSOLS

Air transport (ICAO-TI / IATA-DGR): AEROSOLS, flammable

Safety Data Sheet
according to Regulation (EC) No. 1907/2006 (REACH)
according to Regulation (EU) 2015/830



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14.3. Transport hazard class(es)

2.1

14.4. Packing group

not applicable

14.5. Environmental hazards

Land transport (ADR/RID)

not applicable

Marine pollutant

not applicable

14.6. Special precautions for user

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

Sea transport (IMDG)

EmS-No.

F-D, S-U

Air transport (ICAO-TI / IATA-DGR)

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

not applicable

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

VOC-value (in g/L): 680,903

National regulations

Restrictions of occupation

Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers. Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).

15.2. Chemical Safety Assessment

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

EC No. CAS No.	Chemical name	REACH No.
204-065-8 115-10-6	dimethyl ether	01-2119472128-37-xxxx
204-658-1 123-86-4	n-butyl acetate	01-2119485493-29-xxxx
203-550-1 108-10-1	4-methylpentan-2-one	01-2119473980-30-xxxx
918-668-5	Hydrocarbons, C9, aromatics	01-2119455851-35-xxxx
201-159-0 78-93-3	butanone	01-2119457290-43-xxxx
203-603-9 108-65-6	2-methoxy-1-methylethyl acetate	01-2119475791-29-xxxx

SECTION 16: Other information

Full text of classification in section 3:

Flam. Gas 1 / H220
compressed gas / H280

flammable gases
Gases under pressure

Extremely flammable gas.
Contains gas under pressure; may explode if heated.

Flam. Liq. 3 / H226
STOT SE 3 / H336

Flammable liquids
Specific target organ toxicity (single exposure)

Flammable liquid and vapour.
May cause drowsiness or dizziness.

Safety Data Sheet
according to Regulation (EC) No. 1907/2006 (REACH)
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Flam. Liq. 2 / H225	Flammable liquids	Highly flammable liquid and vapour.
Acute Tox. 4 / H332	Acute toxicity (inhalative)	Harmful if inhaled.
Eye Irrit. 2 / H319	Serious eye damage/eye irritation	Causes serious eye irritation.
STOT SE 3 / H335	Specific target organ toxicity (single exposure)	May cause respiratory irritation.
Asp. Tox. 1 / H304	Aspiration hazard	May be fatal if swallowed and enters airways.
Aquatic Chronic 2 / H411	Hazardous to the aquatic environment	Toxic to aquatic life with long lasting effects.

Abbreviations and acronyms

For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).

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 chapter 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