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

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

1.1. **product identifiers**

Article No. (manufacturer/supplier)	372XX0
Trade name/designation	Covering Lacquer Art.No. 372000, 372900 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**

Manufacturer/supplier

Heinrich König GmbH & Co.KG	
An der Rosenhelle 5 D-61138 Niederdorfelden	Telephone: +49 6101 5360 0 Telefax: +49 6101 5360 11 E-mail: Info@heinrich-koenig.de Website: www.heinrich-koenig.de

Department 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
Ireland (Éireann)	Emergency medical information: 8am-10pm (seven days) contact National Poisons Information Centre, Beaumont Hospital, Dublin 9 DOV2NO, Ireland. Telephone Number: "+353 (0)1 809 2166 "

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	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

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.
P410 + P412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

Hazard components for labelling

n-butyl acetate

Supplemental hazard information

EUH066	Repeated exposure may cause skin dryness or cracking.
EUH211	Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.

2.3. **Other hazards**

No information available.

SECTION 3: Composition / information on ingredients

3.2. **Mixtures** *

Description Aerosol

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

EC No. CAS No. Index No.	REACH No. Designation classification // Remark	weight-%
204-065-8 115-10-6 603-019-00-8	01-2119472128-37-xxxx dimethyl ether Flam. Gas 1 H220 / liquefied gas H280	50 < 100
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	01-2119473980-30-xxxx 4-methylpentan-2-one Flam. Liq. 2 H225 / Acute Tox. 4 H332 / Eye Irrit. 2 H319 / STOT SE 3 H335	10 < 20
918-668-5 64742-95-6 649-356-00-4	01-2119455851-35-xxxx Hydrocarbons, C9, aromatics STOT SE 3 H335 / STOT SE 3 H336 / Asp. Tox. 1 H304 / Aquatic Chronic 2 H411 / Flam. Liq. 3 H226	3 < 5
201-159-0 78-93-3 606-002-00-3	01-2119457290-43-xxxx butanone Flam. Liq. 2 H225 / Eye Irrit. 2 H319 / STOT SE 3 H336	3 < 5
203-603-9 108-65-6 607-195-00-7	01-2119475791-29-xxxx 2-methoxy-1-methylethyl acetate STOT SE 3 H336 / Flam. Liq. 3 H226	1 < 2,5
270-414-6 68439-70-3	01-2119970968-14-xxxx Amines, C12-16-alkyldimethyl Acute Tox. 4 H302 / Skin Corr. 1B H314 / Aquatic Acute 1 H400 (M = 100) / Aquatic Chronic 1 H410 (M = 100)	< 0,0015

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

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)".

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

Hydrocarbons, C9, aromatics
Index No. 649-356-00-4 / EC No. 918-668-5 / CAS No. 64742-95-6

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 aquatic, freshwater: 0,155 mg/L
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
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.

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: Butyl caoutchouc (butyl 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

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** *

Appearance:	
Physical state:	**Liquid**
Colour:	**refer to label**
Odour:	**Preparations containing solvent**
Odour threshold:	**not determined**
pH at 20 °C:	**N.A.**
Melting point/freezing point:	**n.a.**
Initial boiling point and boiling range:	**-24 °C** Method: calculated. Source: dimethyl ether
Flash point:	**-41 °C** Method: calculated.
Evaporation rate:	**not determined**
flammability	
Burning time:	**not determined**
Upper/lower flammability or explosive limits:	
Lower explosion limit:	**2,34 Vol-%** Method: calculated.
Upper explosion limit:	**26,2 Vol-%** Method: calculated. Source: dimethyl ether
Vapour pressure at 20 °C:	**4258,9852 mbar** Method: calculated.
Vapour density:	**not determined**
Relative density:	
Density at 20 °C:	**0,80 g/cm³** Method: calculated.

Solubility(ies):

Water solubility at 20 °C:	**insoluble**
Partition coefficient: n-octanol/water:	**see section 12**
Auto-ignition temperature:	**226 °C** Method: calculated. Source: dimethyl ether
Decomposition temperature:	**not determined**
Viscosity at 20 °C:	**16 s 4 mm** Method: DIN 53211
Explosive properties:	**not determined**
Oxidising properties:	**not determined**

9.2. **Other information** *

Solid content:	**13,75 weight-%**
solvent content:	
Organic solvents:	**86 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 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

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

11.1. **Information on toxicological effects** *

Acute toxicity

Amines, C12-16-alkyldimethyl
oral, LD50, Rat: 52,6 mg/kg
Method: OECD 453
Harmful if swallowed.

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
inhalative (Gases), LC50, Rat: > 20000 ppmV (4 h)

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)
Method: OECD 403

Harmful by inhalation.

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

Causes serious eye irritation.

Amines, C12-16-alkyldimethyl
Skin, Rabbit (4 h)
Method: OECD 404
Causes severe skin burns and eye damage.

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

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

Respiratory or skin sensitisation

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

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

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

STOT-single exposure; STOT-repeated exposure

May cause drowsiness or dizziness.

2-methoxy-1-methylethyl acetate
Specific target organ toxicity (single exposure), drowsiness Evaluation May cause drowsiness or dizziness.

dimethyl ether
Specific target organ toxicity (single exposure), drowsiness Evaluation May cause drowsiness or dizziness.
literature value

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

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

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

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

12.1. **Toxicity** *

Amines, C12-16-alkyldimethyl
Fish toxicity, LC50, Danio rerio (zebrafish): 0,26 mg/L (96 h)
Method: OECD 203
Very toxic to aquatic organisms.
Daphnia toxicity, EC50, Daphnia magna (Big water flea): 0,056 mg/L (48 h)
Method: OECD 202

2-methoxy-1-methylethyl acetate
Fish toxicity, LC50, Oncorhynchus mykiss (Rainbow trout): 134 mg/L 0 - 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, Danio rerio (zebrafish): > 179 mg/L (96 h)
Method: OECD 203
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

Harmful to aquatic life with long lasting effects.

Amines, C12-16-alkyldimethyl
Daphnia toxicity, EC50 (48 h)
Very toxic to aquatic life with long lasting effects.

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**

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: 1,2
Method: Log KOW

dimethyl ether
Partition coefficient: n-octanol/water: 0,7
Method: Log KOW

4-methylpentan-2-one
Partition coefficient: n-octanol/water: 1,31 0 - 1,9
Method: OECD 117

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**
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.

List of proposed waste codes/waste designations in accordance with EWC
150110* packaging containing residues of or contaminated by 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**

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

14.3. **Transport hazard class(es)**

2.1

14.4. **Packing group**

No further relevant information available.

14.5. **Environmental hazards**

Land transport (ADR/RID)	No further relevant information available.
Marine pollutant	No further relevant information available.

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

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 [Industrial Emissions Directive]
Maximum VOC content (g/L) of the product in a ready to use condition: 679

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).

Substance/product listed in the following inventories:

DSL listed
TSCA listed

REACH candidate list of substances of very high concern (SVHC) for the approval process.
According to the available data and / or according to the information provided by the suppliers, the product does not contain any substance that is eligible for inclusion in Annex XIV (list of substances subject to authorization) in accordance with Article 57 in conjunction with Article 59 of REACH.

Regulation (EC) 1907/2006. material in question applies.Regulation (EC) 1907/2006 (REACH) Annex XIV (list of substances subject to authorization)
According to the available data and / or according to the information provided by the suppliers, the product does not contain any substance that is considered to be a substance that requires authorization according to REACH Regulation (EC) 1907/2006 Annex XIV.

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.
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 64742-95-6	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
270-414-6 68439-70-3	Amines, C12-16-alkyldimethyl	01-2119970968-14-xxxx

SECTION 16: Other information *

Full text of classification in section 3

Flam. Gas 1 / H220	flammable gases	Extremely flammable gas.
liquefied gas / H280	Gases under pressure	Contains gas under pressure; may explode if heated.
Flam. Liq. 3 / H226	Flammable liquids	Flammable liquid and vapour.
STOT SE 3 / H336	STOT-single exposure	May cause drowsiness or dizziness.
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	STOT-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.
Acute Tox. 4 / H302	Acute toxicity (oral)	Harmful if swallowed.
Skin Corr. 1B / H314	Skin corrosion/irritation	Causes severe skin burns and eye damage.
Aquatic Acute 1 / H400	Hazardous to the aquatic environment	Very toxic to aquatic organisms.
Aquatic Chronic 1 / H410	Hazardous to the aquatic environment	Very toxic to aquatic life with long lasting effects.

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

Aerosol 1	Aerosol	On basis of test data.
Aerosol 1	Aerosol	On basis of test data.
Eye Irrit. 2	Serious eye damage/eye irritation	Calculation method.
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.

You can also find current SDSs for our standard products online on our homepage under **Downloads** in the relevant product area.

* Data changed compared with the previous version