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)	3XX301
Trade name/designation	Special Repair Lacquer PLUS Art.no.336301; 337301; 338301; 339301; 340301

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	Telephone: +49 6101 5360 0
D-61138 Niederdorfelden	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

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. 2 / H225	Flammable liquids	Highly flammable liquid and vapour.
Eye Dam. 1 / H318	Serious eye damage/eye irritation	Causes serious eye damage.
STOT SE 3 / H336	STOT-single exposure	May cause drowsiness or dizziness.

2.2. **Label elements**

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

Hazard pictograms

Danger

Hazard statements

H225	Highly flammable liquid and vapour.
H318	Causes serious eye damage.
H336	May cause drowsiness or dizziness.

Precautionary statements

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P280	Wear protective gloves and eye/face protection.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER or doctor/ physician.
P370 + P378	In case of fire: Use foam to extinguish.
P403 + P235	Store in a well-ventilated place. Keep cool.

Hazard components for labelling

2-methylpropan-1-ol
n-butyl acetate

Supplemental hazard information

EUH066 Repeated exposure may cause skin dryness or cracking.

2.3. **Other hazards**

No information available.

SECTION 3: Composition / information on ingredients

3.2. **Mixtures** *

Description NC combination lacquer

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

EC No. CAS No. Index No.	REACH No. Designation classification // Remark	weight-%
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	50 < 100
205-500-4 141-78-6 607-022-00-5	01-2119475103-46-xxxx Ethyl acetate Flam. Liq. 2 H225 / Eye Irrit. 2 H319 / STOT SE 3 H336	7 < 10
200-661-7 67-63-0 603-117-00-0	01-2119457558-25-xxxx propan-2-ol Flam. Liq. 2 H225 / Eye Irrit. 2 H319 / STOT SE 3 H336	5 < 7
201-148-0 78-83-1 603-108-00-1	01-2119484609-23-xxxx 2-methylpropan-1-ol Flam. Liq. 3 H226 / STOT SE 3 H335 / Skin Irrit. 2 H315 / Eye Dam. 1 H318 / STOT SE 3 H336	3 < 5
203-539-1 107-98-2 603-064-00-3	01-2119457435-35-xxxx 1-methoxy-2-propanol Flam. Liq. 3 H226 / STOT SE 3 H336	1 < 2,5
252-104-2 34590-94-8	01-2119450011-60-xxxx (2-methoxymethylethoxy)propanol Substance with a common (EC) occupational exposure limit value.	1 < 2,5
200-578-6 64-17-5 603-002-00-5	01-2119457610-43-xxxx Ethanol Flam. Liq. 2 H225 Specific concentration limit (SCL): Eye Irrit. 2 H319 >= 50	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 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:

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

Ethyl acetate
Index No. 607-022-00-5 / EC No. 205-500-4 / CAS No. 141-78-6
TWA: 730 mg/m3; 200 ppm
STEL: 1460 mg/m3; 400 ppm

propan-2-ol
Index No. 603-117-00-0 / EC No. 200-661-7 / CAS No. 67-63-0
TWA: 999 mg/m3; 400 ppm
STEL: 1250 mg/m3; 500 ppm

2-methylpropan-1-ol
Index No. 603-108-00-1 / EC No. 201-148-0 / CAS No. 78-83-1
TWA: 154 mg/m3; 50 ppm
STEL: 231 mg/m3; 75 ppm

1-methoxy-2-propanol
Index No. 603-064-00-3 / EC No. 203-539-1 / CAS No. 107-98-2
TWA: 375 mg/m3; 100 ppm
STEL: 560 mg/m3; 150 ppm

Ethanol
Index No. 603-002-00-5 / EC No. 200-578-6 / CAS No. 64-17-5
TWA: 1920 mg/m3; 1000 ppm

Additional information
TWA : Long-term occupational exposure limit value
STEL : short-term occupational exposure limit value
Ceiling : peak limitation

DNEL:

(2-methoxymethylethoxy)propanol
EC No. 252-104-2 / CAS No. 34590-94-8
DNEL long-term dermal (systemic), Workers: 283 mg/kg
DNEL long-term inhalative (systemic), Workers: 308 mg/m³
DNEL long-term oral (repeated), Consumer: 36 mg/kg
DNEL long-term dermal (systemic), Consumer: 121 mg/kg
DNEL long-term inhalative (systemic), Consumer: 37,2 mg/m³

1-methoxy-2-propanol
Index No. 603-064-00-3 / EC No. 203-539-1 / CAS No. 107-98-2
DNEL long-term dermal (systemic), Workers: 183 mg/kg
DNEL acute inhalative (local), Workers: 553,5 mg/m³
DNEL acute inhalative (systemic), Workers: 553,5 mg/m³
DNEL long-term inhalative (systemic), Workers: 369 mg/m³
DNEL long-term oral (repeated), Consumer: 33 mg/kg
DNEL long-term dermal (systemic), Consumer: 78 mg/kg
DNEL long-term inhalative (systemic), Consumer: 43,9 mg/m³

Ethanol
Index No. 603-002-00-5 / EC No. 200-578-6 / CAS No. 64-17-5
DNEL long-term dermal (systemic), Workers: 343 mg/kg
DNEL acute inhalative (local), Workers: 1900 mg/m³
DNEL long-term inhalative (systemic), Workers: 950 mg/m³
DNEL long-term oral (repeated), Consumer: 87 mg/kg

DNEL acute dermal, short-term (systemic), Consumer: 950 mg/kg
DNEL long-term dermal (systemic), Consumer: 206 mg/kg
DNEL acute inhalative (local), Consumer: 950 mg/m³
DNEL long-term inhalative (systemic), Consumer: 114 mg/m³

Ethyl acetate
Index No. 607-022-00-5 / EC No. 205-500-4 / CAS No. 141-78-6
DNEL long-term dermal (systemic), Workers: 63 mg/kg
DNEL acute inhalative (local), Workers: 1468 mg/m³
DNEL acute inhalative (systemic), Workers: 1468 mg/m³
DNEL long-term inhalative (local), Workers: 734 mg/m³
DNEL long-term inhalative (systemic), Workers: 734 mg/m³
DNEL long-term oral (repeated), Consumer: 4,5 mg/kg
DNEL long-term dermal (systemic), Consumer: 37 mg/kg
DNEL acute inhalative (local), Consumer: 734 mg/m³
DNEL acute inhalative (systemic), Consumer: 734 mg/m³
DNEL long-term inhalative (local), Consumer: 367 mg/m³
DNEL long-term inhalative (systemic), Consumer: 367 mg/m³

propan-2-ol
Index No. 603-117-00-0 / EC No. 200-661-7 / CAS No. 67-63-0
DNEL long-term dermal (systemic), Workers: 888 mg/kg
DNEL long-term inhalative (systemic), Workers: 500 mg/m³
DNEL long-term oral (repeated), Consumer: 26 mg/kg
DNEL long-term dermal (systemic), Consumer: 319 mg/kg
DNEL long-term inhalative (systemic), Consumer: 89 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

2-methylpropan-1-ol
Index No. 603-108-00-1 / EC No. 201-148-0 / CAS No. 78-83-1
DNEL long-term inhalative (local), Workers: 310 mg/m³
DNEL long-term oral (repeated), Consumer: 25 mg/kg
DNEL long-term inhalative (local), Consumer: 55 mg/m³

PNEC:

(2-methoxymethylethoxy)propanol
EC No. 252-104-2 / CAS No. 34590-94-8
PNEC aquatic, freshwater: 19 mg/L
PNEC aquatic, marine water: 1,9 mg/L
PNEC aquatic, intermittent release: 190 mg/L
PNEC sediment, freshwater: 70,2 mg/kg
PNEC sediment, marine water: 7,02 mg/kg
PNEC, soil: 2,74 mg/kg
PNEC sewage treatment plant (STP): 4168 mg/L

1-methoxy-2-propanol
Index No. 603-064-00-3 / EC No. 203-539-1 / CAS No. 107-98-2
PNEC aquatic, freshwater: 10 mg/L
PNEC aquatic, marine water: 1 mg/L
PNEC aquatic, intermittent release: 100 mg/L

PNEC sediment, freshwater: 52,3 mg/kg
PNEC sediment, marine water: 5,2 mg/kg
PNEC, soil: 4,59 mg/kg
PNEC sewage treatment plant (STP): 100 mg/L

Ethanol
Index No. 603-002-00-5 / EC No. 200-578-6 / CAS No. 64-17-5
PNEC aquatic, freshwater: 0,96 mg/L
PNEC aquatic, marine water: 0,79 mg/L
PNEC aquatic, intermittent release: 2,75 mg/L
PNEC sediment, freshwater: 3,6 mg/kg
PNEC sediment, marine water: 2,9 mg/kg
PNEC, soil: 0,63 mg/kg
PNEC sewage treatment plant (STP): 580 mg/L
PNEC Secondary Poisoning: 0,72 mg/kg

Ethyl acetate
Index No. 607-022-00-5 / EC No. 205-500-4 / CAS No. 141-78-6
PNEC aquatic, freshwater: 0,24 mg/L
PNEC aquatic, marine water: 0,024 mg/L
PNEC aquatic, intermittent release: 1,65 mg/L
PNEC sediment, freshwater: 1,15 mg/kg
PNEC sediment, marine water: 0,034 mg/kg
PNEC, soil: 0,148 mg/kg
PNEC sewage treatment plant (STP): 650 mg/L
PNEC Secondary Poisoning: 200 mg/kg

propan-2-ol
Index No. 603-117-00-0 / EC No. 200-661-7 / CAS No. 67-63-0
PNEC aquatic, freshwater: 140,9 mg/L
PNEC aquatic, marine water: 140,9 mg/L
PNEC aquatic, intermittent release: 140,9 mg/L
PNEC sediment, freshwater: 552 mg/kg
PNEC sediment, marine water: 552 mg/kg
PNEC, soil: 28 mg/kg
PNEC sewage treatment plant (STP): 2251 mg/L
PNEC Secondary Poisoning: 160 mg/kg

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

2-methylpropan-1-ol
Index No. 603-108-00-1 / EC No. 201-148-0 / CAS No. 78-83-1
PNEC aquatic, freshwater: 0,4 mg/L
PNEC aquatic, marine water: 0,04 mg/L
PNEC aquatic, intermittent release: 11 mg/L
PNEC sediment, freshwater: 1,52 mg/kg
PNEC sediment, marine water: 0,125 mg/kg
PNEC, soil: 0,076 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: FKM (fluoro 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:	**colourless**
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:	**77 °C** Method: calculated. Source: Ethyl acetate
Flash point:	**12 °C** Method: calculated.
Evaporation rate:	**0,4 mg/s** Source: Ethyl acetate
flammability	
Burning time:	**not determined**
Upper/lower flammability or explosive limits:	
Lower explosion limit:	**1,37 Vol-%** Method: calculated.
Upper explosion limit:	**15 Vol-%** Method: calculated. Source: Ethanol
Vapour pressure at 20 °C:	**20,3352 mbar** Method: calculated.
Vapour density:	**not determined**
Relative density:	
Density at 20 °C:	**0,90 g/cm³** Method: calculated.
Solubility(ies):	
Water solubility at 20 °C:	**partially soluble**
Partition coefficient: n-octanol/water:	**see section 12**
Auto-ignition temperature:	**415 °C** Method: calculated. Source: n-butyl acetate
Decomposition temperature:	**not determined**
Viscosity at 20 °C:	**37 s 3 mm** Method: EN ISO 2431

Explosive properties: **not determined**

Oxidising properties: **not determined**

9.2. **Other information**

Solid content: **11,50 weight-%**

solvent content:

Organic solvents: **89 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

(2-methoxymethylethoxy)propanol
oral, LD50, Rat: > 5000 mg/kg
dermal, LD50, Rabbit: 9510 mg/kg
inhalative (vapours), LC50, Rat: 3,35 mg/L 3,35 (4 h)
Based on available data the classification criteria are not met.

1-methoxy-2-propanol
oral, LD50, Rat: 4016 mg/kg
dermal, LD50, Rabbit: > 2000 mg/kg
inhalative (vapours), LC50, Rat: > 25,8 mg/L (4 h)
Based on available data, the classification criteria are not met.

Ethanol
oral, LD50, Rat: 10470 mg/kg
Method: OECD 401
dermal, LD50, Rabbit: > 2000 mg/kg
Method: OECD 402
inhalative (vapours), LC50, Rat: 51 mg/L (4 h)
Method: OECD 403
Based on available data, the classification criteria are not met.

Ethyl acetate
oral, LD50, Rat: 4934 mg/kg
Method: OECD 401
dermal, LD50, Rabbit: > 20000 mg/kg
inhalative (vapours), LC50, Rat: 29,3 mg/L (4 h)
Based on available data, the classification criteria are not met.

propan-2-ol
oral, LD50, Rat: 5840 mg/kg
Method: OECD 401
dermal, LD50, Rabbit: 13900 mg/kg

Method: OECD 402
inhalative (vapours), LC50, Rat: 25 mg/L (4 h); Evaluation OECD 403

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.

2-methylpropan-1-ol
oral, LD50, Rat: 3350 mg/kg
Method: OECD 401
dermal, LD50, Rabbit: > 2000 mg/kg
Method: OECD 402
inhalative (vapours), LC50, Rat: > 18,18 mg/L (4 h)
Based on available data, the classification criteria are not met.

Skin corrosion/irritation; Serious eye damage/eye irritation

Causes serious eye damage.

Ethanol
eyes

Ethyl acetate
eyes
Causes serious eye irritation.

propan-2-ol
eyes
Method: OECD 405
Causes serious eye irritation.

2-methylpropan-1-ol
Skin, Rabbit
Method: OECD 404
Causes skin irritation.
eyes, Rabbit
Method: OECD 405
Causes serious eye irritation.

Respiratory or skin sensitisation

2-methylpropan-1-ol
Skin:
not sensitising.
Respiratory system:
not sensitising.

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.

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

Ethyl acetate
Specific target organ toxicity (single exposure), drowsiness
May cause drowsiness or dizziness.

propan-2-ol
Specific target organ toxicity (single exposure), drowsiness Evaluation central nervous system
May cause drowsiness or dizziness.

n-butyl acetate
Specific target organ toxicity (single exposure), drowsiness

May cause drowsiness or dizziness.

2-methylpropan-1-ol
Specific target organ toxicity (single exposure), Irritation
May cause respiratory irritation.
Specific target organ toxicity (single exposure), drowsiness
May cause drowsiness or dizziness.

Aspiration hazard

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

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** *

(2-methoxymethylethoxy)propanol
Fish toxicity, LC50, Poecilia reticulata (Guppy): > 1000 mg/L (96 h)
Method: OECD 203
Daphnia toxicity, EC50, Daphnia magna (Big water flea): 1919 mg/L (48 h)
Method: OECD 202
Algae toxicity, ErC50, Pseudokirchneriella subcapitata: > 969 mg/L (96 h)
Method: OECD 201
Bacteria toxicity, EC10, Pseudomonas putida: 4168 mg/L (18 h)
Based on available data the classification criteria are not met.

1-methoxy-2-propanol
Fish toxicity, LC50, Leuciscus idus (golden orfe): 6812 mg/L (96 h)
Based on available data, the classification criteria are not met.
Daphnia toxicity, EC50, Daphnia magna (Big water flea) 21100 - 25900 mg/L (48 h)
Based on available data, the classification criteria are not met.
Algae toxicity, ErC50, Pseudokirchneriella subcapitata: > 1000 mg/L (168 h); Evaluation Inhibition of growth rate.
Method: OECD 201

Ethanol
Fish toxicity, LC50, Pimephales promelas (fathead minnow): 15300 mg/L (96 h)
Daphnia toxicity, EC50, Daphnia magna (Big water flea): 12340 mg/L (48 h)
Algae toxicity, ErC50, Chlorella vulgaris: 275 mg/L (72 h)
Method: OECD 201
Bacteria toxicity, EC50, Pseudomonas putida: 5800 mg/L (4 h)
Based on available data, the classification criteria are not met.

Ethyl acetate
Fish toxicity, LC50, Pimephales promelas (fathead minnow): 230 mg/L (96 h)
Daphnia toxicity, EC50, Daphnia magna (Big water flea): 610 mg/L (48 h)
Algae toxicity, ErC50, Desmodesmus subspicatus: 5600 mg/L (48 h)
Based on available data, the classification criteria are not met.

propan-2-ol
Fish toxicity, LC50, Pimephales promelas (fathead minnow): 9640 mg/L (96 h)
Method: OECD 203
Daphnia toxicity, EC50, Daphnia magna (Big water flea): > 100 mg/L (48 h)
Algae toxicity, ErC50, Scenedesmus subspicatus: > 100 mg/L (72 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.

2-methylpropan-1-ol
Fish toxicity, LC50, Pimephales promelas (fathead minnow): 1430 mg/L (96 h)
Daphnia toxicity, EC50, Daphnia magna (Big water flea): 1100 mg/L (48 h)
Algae toxicity, ErC50, Pseudokirchneriella subcapitata: 632 mg/L (72 h)
Method: OECD 201
Based on available data, the classification criteria are not met.

Long-term Ecotoxicity

(2-methoxymethylethoxy)propanol
Daphnia toxicity, NOEC, Daphnia magna (Big water flea): > 0,5 mg/L (22 D)
Based on available data the classification criteria are not met.

1-methoxy-2-propanol
Algae toxicity, ErC50, Pseudokirchneriella subcapitata: > 1000 mg/L (168 h)
Based on available data, the classification criteria are not met.

Ethyl acetate
Fish toxicity, NOEC, Pimephales promelas (fathead minnow): > 9,65 mg/L (32 d)
Daphnia toxicity, NOEC, Daphnia magna (Big water flea): 2,4 mg/L (21 D)
Method: OECD 211
Algae toxicity, NOEC, Desmodesmus subspicatus.: > 100 mg/L (72 h)
Method: OECD 201.
Based on available data, the classification criteria are not met.

2-methylpropan-1-ol
Daphnia toxicity, NOEC, Daphnia magna (Big water flea): 20 mg/L (21 D)
Based on available data, the classification criteria are not met.

12.2. **Persistence and degradability**

(2-methoxymethylethoxy)propanol
Biodegradation: 75 % (28 D)
Method: OECD 301 F
Readily biodegradable (according to OECD criteria).

1-methoxy-2-propanol
Biodegradation: 96 % (28 d)
Method: OECD 301E
Readily biodegradable (according to OECD criteria).

Ethanol
Biodegradation, aerobic.: 97 % (28 D)
Readily biodegradable (according to OECD criteria).

Ethyl acetate
Biodegradation: 79 %
Method: OECD 301D
Readily biodegradable (according to OECD criteria).

propan-2-ol
Biodegradation: 53 % (5 D)
Readily biodegradable (according to OECD criteria).

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

2-methylpropan-1-ol
Biodegradation, Activated sludge: 70 - 80 % (28 D)
Method: OECD 301D

12.3. **Bioaccumulative potential**

(2-methoxymethylethoxy)propanol

Partition coefficient: n-octanol/water: 0,006

1-methoxy-2-propanol
Partition coefficient: n-octanol/water: 0,37

Ethanol
Partition coefficient: n-octanol/water: -0,35

Ethyl acetate
Partition coefficient: n-octanol/water: 0,68

propan-2-ol
Partition coefficient: n-octanol/water: 0,05

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

2-methylpropan-1-ol
Partition coefficient: n-octanol/water: 1

Bioconcentration factor (BCF)

(2-methoxymethylethoxy)propanol
Bioconcentration factor (BCF): < 100

Ethanol
Bioconcentration factor (BCF): 0,66
No indication of bioaccumulation potential.

12.4. **Mobility in soil**

propan-2-ol
:
water-soluble

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

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**

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**

II

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/E SPECIAL PROVISIONS 640D

Sea transport (IMDG)

EmS-No.	F-E, S-E

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: 798

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.
204-658-1 123-86-4	n-butyl acetate	01-2119485493-29-xxxx
205-500-4 141-78-6	Ethyl acetate	01-2119475103-46-xxxx
200-661-7 67-63-0	propan-2-ol	01-2119457558-25-xxxx
201-148-0 78-83-1	2-methylpropan-1-ol	01-2119484609-23-xxxx
203-539-1 107-98-2	1-methoxy-2-propanol	01-2119457435-35-xxxx
252-104-2 34590-94-8	(2-methoxymethylethoxy)propanol	01-2119450011-60-xxxx
200-578-6 64-17-5	Ethanol	01-2119457610-43-xxxx

SECTION 16: Other information *

Full text of classification in section 3

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.
Eye Irrit. 2 / H319	Serious eye damage/eye irritation	Causes serious eye irritation.
STOT SE 3 / H335	STOT-single exposure	May cause respiratory irritation.
Skin Irrit. 2 / H315	Skin corrosion/irritation	Causes skin irritation.
Eye Dam. 1 / H318	Serious eye damage/eye irritation	Causes serious eye damage.

Classification procedure

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

Flam. Liq. 2	Flammable liquids	On basis of test data.
Eye Dam. 1	Serious eye damage/eye irritation	Calculation method.
STOT SE 3	STOT-single exposure	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