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 identifier

Article No. (manufacturer/supplier)	H2243
Trade name/designation	Jocophen H2243 seidenmatt UFI: DMU1-S0WR-Y000-PKMJ

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

Relevant identified uses:
Two-pack performance coatings

1.3. Details of the supplier of the safety data sheet

supplier (manufacturer/importer/downstream user/distributor)

PLANTAG Coatings GmbH
Plantagenweg 34-38
32758 Detmold

05231/6002-0
05231/6002-10
info@plantag.de
www.plantag.de

Department responsible for information:

Product Safety Department 7:30 a.m. - 4:45 p.m.	Christin Seier
E-mail (competent person)	+49 (0) 5231 / 6002673 Ralf Hachmeister +49 (0) 5231 / 6002671 produktsicherheit@plantag.de

1.4. Emergency telephone number

Germany 0800-181-7059
USA/Canada 1-800-424-9300
Outside USA/Canada +001 703 527 3887
China 4001 204937 (Mandarin)
Hong Kong 800 968 793 (Cantonese)

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 Irrit. 2 / H319	Serious eye damage/eye irritation	Causes serious eye irritation.
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.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.

Precautionary statements

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P243	Take action to prevent static discharges.
P271	Use only outdoors or in a well-ventilated area.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P403 + P235	Store in a well-ventilated place. Keep cool.

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

Hazard components for labelling
n-butyl acetate

Supplemental hazard information
EUH066 Repeated exposure may cause skin dryness or cracking.
EUH208 Contains Hydroxyphenyl-benzotriazole derivatives. May produce an allergic reaction.

2.3. **Other hazards**

No information available.

SECTION 3: Composition / information on ingredients

3.2. **Mixtures**

Description Preparations containing solvent

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 n-butyl acetate Flam. Liq. 3 H226 / STOT SE 3 H336	50 < 100
201-159-0 78-93-3 606-002-00-3	01-2119457290-43 butanone Flam. Liq. 2 H225 / Eye Irrit. 2 H319 / STOT SE 3 H336	5 < 10
905-588-0	01-2119488216-32 reaction mass of ethylbenzene and xylene Acute Tox. 4 H312 / Acute Tox. 4 H332 / Skin Irrit. 2 H315 / Eye Irrit. 2 H319 / STOT SE 3 H335 / STOT RE 2 H373 / Asp. Tox. 1 H304 / Flam. Liq. 3 H226	3 < 5
603-037-00-6	nitrocellulose Expl. 1.1 H201	2,5 < 3
203-550-1 108-10-1 606-004-00-4	01-2119473980-30 4-methylpentan-2-one Flam. Liq. 2 H225 / Acute Tox. 4 H332 / Eye Irrit. 2 H319 / STOT SE 3 H335	2,5 < 3
215-535-7 1330-20-7 601-022-00-9	01-2119488216-32 Xylene Acute Tox. 4 H312 / Acute Tox. 4 H332 / Skin Irrit. 2 H315 / Eye Irrit. 2 H319 / STOT SE 3 H335 / STOT RE 2 H373 / Asp. Tox. 1 H304 / Aquatic Chronic 3 H412 / Flam. Liq. 3 H226	1 < 2,5
203-603-9 108-65-6 607-195-00-7	01-2119475791-29 2-methoxy-1-methylethyl acetate STOT SE 3 H336 / Flam. Liq. 3 H226	1 < 2,5
400-830-7 607-176-00-3	Hydroxyphenyl-benzotriazole derivatives Skin Sens. 1 H317 / Aquatic Chronic 2 H411	0,1 < 1

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. Remove affected person from the danger area and lay down.
Do not leave affected person unattended.
Take off immediately all contaminated clothing. In case of unconsciousness give nothing by mouth, place in recovery position and seek medical advice.

In case of irregular breathing or respiratory arrest provide artificial respiration.
Put victim at rest, cover with a blanket and keep warm.
Self-protection of the first aider.
Move victim to fresh air.

Following inhalation
Remove casualty to fresh air and keep warm and at rest. In case of irregular breathing or respiratory arrest provide artificial respiration. If unconscious but breathing normally, place in recovery position and seek medical advice.

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. In case of skin irritation, consult a physician.
Wash contaminated clothing prior to re-use.

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. Protect uninjured eye.

Following ingestion
If swallowed, rinse mouth with water (only if the person is conscious).
Seek medical advice immediately.
Remove casualty to fresh air and keep warm and at rest.
Do NOT induce vomiting.
Show this safety data sheet to the doctor in attendance.
If unconscious but breathing normally, place in recovery position and seek medical advice.
Never give anything by mouth to an unconscious person or a person with cramps.
Do not give fatty oils and milk.

Self-protection of the first aider
No mouth-to-mouth or mouth-to-nose resuscitation. Use Ambu bag or ventilator.

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.

Symptoms
Prolonged or repeated skin contact may cause removal of natural fat from the skin resulting in dermatitis (skin inflammation).
May irritate eyes.
May irritate skin.

Special treatment
Treat symptomatically.
Subsequent observance for pneumonia and lung oedema.
Gastric lavage (stomach washing) only under endotracheal intubation.
Pulmonary oedema prophylaxis

SECTION 5: Firefighting measures

5.1. **Extinguishing media**

Suitable extinguishing media
Co-ordinate fire-fighting measures to the fire surroundings.

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. In case of fire may be liberated: carbon dioxide, carbon monoxide, Explosive vapour/air mixture, Pyrolysis products, toxic
Vapours are heavier than air.
Reignition possible over considerable distance.

5.3. **Advice for firefighters**
Wear a self-contained breathing apparatus and chemical protective clothing. In case of fire and/or explosion do not breathe fumes.
Do not allow water used to extinguish fire to enter drains, ground or waterways. Dispose according to legislation.
Cool closed containers that are near the source of the fire.
Remove persons to safety.

Keep people away from and upwind of spill/leak.
Take precautionary measures against static discharges.
Heating causes rise in pressure with risk of bursting.

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. Use personal protection equipment.
Avoid contact with eyes and skin.
Take precautionary measures against static discharges.
Keep unprotected people away and stay on the upwind side.
Handle in accordance with good industrial hygiene and safety practice.

6.2. **Environmental precautions**
Do not allow to enter into surface water or drains. Prevent spread over a wide area (e.g. by containment or oil barriers). 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**
Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).
Collect in closed and suitable containers for disposal.
Clean using cleansing agents. Do not use solvents. Provide adequate ventilation.

6.4. **Reference to other sections**
SECTION 7: Handling and storage
SECTION 8: Exposure controls/personal protection
SECTION 13: Disposal considerations

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.
Have fire-extinguishers in readiness before opening containers.
Wash hands before breaks and after work.
Guarantee that the eye flushing systems and safety showers are closely located to the working place.
Protect from sunlight.
Keep work clothes separately.
Change contaminated, saturated clothing.

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

Further information

Handle in accordance with good industrial hygiene and safety practice.

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 only in the original container. 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.

Hints on joint storage
Keep away from strongly acidic and alkaline materials as well as oxidizers.
Keep away from food, drink and animal feedingstuffs.
Do not store together with oxidizing and self-igniting products.
Keep away from: Reducing agent

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
MEL/OES, TWA: 724 mg/m3; 150 ppm
MEL/OES, STEL: 966 mg/m3; 200 ppm

butanone
Index No. 606-002-00-3 / EC No. 201-159-0 / CAS No. 78-93-3
WEL, TWA: 600 mg/m3; 200 ppm
WEL, STEL: 899 mg/m3; 300 ppm

4-methylpentan-2-one
Index No. 606-004-00-4 / EC No. 203-550-1 / CAS No. 108-10-1
WEL, TWA: 208 mg/m3; 50 ppm
WEL, STEL: 416 mg/m3; 100 ppm
Remark: (may be absorbed through the skin)
BMGV, TWA: 20 µmol/L
Remark: 4-methylpentan - 2-one; urine; end of exposure or end of shift

Xylene
Index No. 601-022-00-9 / EC No. 215-535-7 / CAS No. 1330-20-7
WEL, TWA: 220 mg/m3; 50 ppm
WEL, STEL: 441 mg/m3; 100 ppm
Remark: (may be absorbed through the skin)
BMGV, TWA: 650 mmol/mol creatinine
Remark: methyl hippuric acid; urine; end of exposure or end of shift

2-methoxy-1-methylethyl acetate
Index No. 607-195-00-7 / EC No. 203-603-9 / CAS No. 108-65-6
WEL, TWA: 274 mg/m3; 50 ppm
WEL, STEL: 548 mg/m3; 100 ppm
Remark: (may be absorbed through the skin)

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

DNEL:

Xylene
Index No. 601-022-00-9 / EC No. 215-535-7 / CAS No. 1330-20-7
DNEL long-term dermal (systemic), Workers: 180 mg/kg
DNEL acute inhalative (local), Workers: 289 mg/m³
DNEL acute inhalative (systemic), Workers: 289 mg/m³
DNEL long-term inhalative (systemic), Workers: 77 mg/m³
DNEL long-term oral (repeated), Consumer: 1,6 mg/kg
DNEL long-term dermal (systemic), Consumer: 108 mg/kg
DNEL acute inhalative (local), Consumer: 174 mg/m³
DNEL acute inhalative (systemic), Consumer: 174 mg/m³
DNEL long-term inhalative (systemic), Consumer: 14,8 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 inhalative (systemic), Consumer: 106 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 bw/day
DNEL acute inhalative (systemic), Workers: 208 mg/m³
DNEL long-term inhalative (systemic), Workers: 83 mg/m³
DNEL long-term dermal (systemic), Consumer: 4,2 mg/kg bw/day
DNEL acute inhalative (systemic), Consumer: 155,2 mg/m³
DNEL long-term inhalative (systemic), Consumer: 14,7 mg/m³

n-butyl acetate
Index No. 607-025-00-1 / EC No. 204-658-1 / CAS No. 123-86-4
DNEL long-term dermal (systemic), Workers: 7 mg/kg bw/day
DNEL acute inhalative (local), Workers: 960 mg/m³
DNEL acute inhalative (systemic), Workers: 960 mg/m³
DNEL long-term inhalative (local), Workers: 480 mg/m³
DNEL long-term inhalative (systemic), Workers: 48 mg/m³
DNEL long-term dermal (systemic), Consumer: 3,4 mg/kg bw/day
DNEL acute inhalative (local), Consumer: 859,7 mg/m³
DNEL acute inhalative (systemic), Consumer: 859,7 mg/m³
DNEL long-term inhalative (local), Consumer: 102,34 mg/m³
DNEL long-term inhalative (systemic), Consumer: 12 mg/m³

2-methoxy-1-methylethyl acetate
Index No. 607-195-00-7 / EC No. 203-603-9 / CAS No. 108-65-6
DNEL long-term dermal (systemic), Workers: 153,5 mg/kg
DNEL long-term inhalative (systemic), Workers: 275 mg/m³
DNEL long-term oral (repeated), Consumer: 1,67 mg/kg
DNEL long-term dermal (systemic), Consumer: 54,8 mg/kg
DNEL long-term inhalative (systemic), Consumer: 33 mg/m³

Hydroxyphenyl-benzotriazole derivatives
Index No. 607-176-00-3 / EC No. 400-830-7
DNEL long-term dermal (systemic), Workers: 0,5 mg/kg
DNEL long-term inhalative (systemic), Workers: 0,35 mg/m³
DNEL long-term oral (repeated), Consumer: 0,025 mg/kg
DNEL long-term dermal (systemic), Consumer: 0,25 mg/kg
DNEL long-term inhalative (systemic), Consumer: 0,085 mg/m³

reaction mass of ethylbenzene and xylene

EC No. 905-588-0
DNEL long-term dermal (systemic), Workers: 180 mg/kg
DNEL acute inhalative (systemic), Workers: 289 mg/m³
DNEL long-term inhalative (local), Workers: 289 mg/m³
DNEL long-term inhalative (systemic), Workers: 77
DNEL long-term oral (repeated), Consumer: 1,6 mg/kg
DNEL long-term dermal (systemic), Consumer: 108 mg/kg
DNEL acute inhalative (systemic), Consumer: 174 mg/m³
DNEL long-term inhalative (local), Consumer: 14,8 mg/m³
DNEL long-term inhalative (systemic), Consumer: 174 mg/m³

PNEC:

Xylene
Index No. 601-022-00-9 / EC No. 215-535-7 / CAS No. 1330-20-7
PNEC aquatic, freshwater: 0,327 mg/L
PNEC aquatic, marine water: 0,327 mg/L
PNEC aquatic, intermittent release: 0,327 mg/L
PNEC sediment, freshwater: 12,46 mg/kg
PNEC sediment, marine water: 12,46 mg/kg
PNEC, soil: 2,31 mg/kg
PNEC sewage treatment plant (STP): 6,58 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, soil: 22,5 mg/kg
PNEC sewage treatment plant (STP): 709 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 sediment, freshwater: 8,27
PNEC sediment, marine water: 0,83
PNEC, soil: 1,3
PNEC sewage treatment plant (STP): 27,5 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 sediment, freshwater: 0,981 mg/L
PNEC sediment, marine water: 0,0981 mg/L
PNEC sewage treatment plant (STP): 35,6 mg/L

2-methoxy-1-methylethyl acetate
Index No. 607-195-00-7 / EC No. 203-603-9 / CAS No. 108-65-6
PNEC aquatic, freshwater: 0,635 mg/L
PNEC aquatic, marine water: 0,0635 mg/L
PNEC aquatic, intermittent release: 6,35 mg/L
PNEC sediment, freshwater: 3,29 mg/kg
PNEC sediment, marine water: 0,329 mg/kg
PNEC, soil: 0,29 mg/kg
PNEC sewage treatment plant (STP): 100 mg/L

Hydroxyphenyl-benzotriazole derivatives
Index No. 607-176-00-3 / EC No. 400-830-7
PNEC aquatic, freshwater: 0,0023 mg/L
PNEC aquatic, marine water: 0,0002 mg/L
PNEC sediment, freshwater: 3,06 mg/kg
PNEC sediment, marine water: 0,306 mg/kg
PNEC, soil: 2 mg/kg
PNEC sewage treatment plant (STP): 10 mg/L

reaction mass of ethylbenzene and xylene

EC No. 905-588-0
PNEC aquatic, freshwater: 0,1 mg/L
PNEC aquatic, marine water: 0,01 mg/L
PNEC sediment, freshwater: 13,7 mg/kg
PNEC sediment, marine water: 1,37 mg/kg
PNEC, soil: 2,68 mg/kg
PNEC sewage treatment plant (STP): 9,6 mg/L
PNEC Secondary Poisoning: 20 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.
respirator with A/P-filter (EN 14387)

Hand protection

For prolonged or repeated handling the following glove material must be used: Chemical proof safety gloves
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 eye glasses with side protection according to EN 166.

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.
When using do not eat, drink or smoke.
Guarantee that the eye flushing systems and safety showers are closely located to the working place.
Keep away from food, drink and animal feedingstuffs. Take off immediately all contaminated clothing.
Separate storage of work clothes.
Handle in accordance with good industrial hygiene and safety practice.
Avoid contact with eyes and skin.
Do not breathe vapour/aerosol.
Wash contaminated clothing prior to re-use.

Environmental exposure controls
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.
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:	**characteristic**
Odour threshold:	**not determined**
pH at 20 °C:	**not applicable**
Melting point/freezing point:	**not applicable**
Initial boiling point and boiling range:	**80 °C** Source: butanone
Flash point:	**-4 °C** Method: ASTM D 7094a
Evaporation rate:	**not determined**
flammability	
Burning time:	**not applicable**
Upper/lower flammability or explosive limits:	
Lower explosion limit:	**0,7 Vol-%** Source: Xylene
Upper explosion limit:	**11,5 Vol-%** Source: butanone
Vapour pressure at 20 °C:	**105 mbar** Source: butanone
Vapour density:	**not determined**
Relative density:	
Density at 20 °C:	**0,91 g/cm³**
Solubility(ies):	
Water solubility at 20 °C:	**insoluble**
Partition coefficient: n-octanol/water:	**see section 12**
Auto-ignition temperature:	**not determined**
Decomposition temperature:	**not determined**

Viscosity at °C:	**27-30 s 4 mm**
Explosive properties:	**not applicable**
Oxidising properties:	**not applicable**

9.2. **Other information**

Solid content:	**16,81 weight-%**
solvent content:	
Organic solvents:	**83,17 weight-%**
Water:	**0,02 weight-%**

SECTION 10: Stability and reactivity

10.1. **Reactivity**
No dangerous reaction known under conditions of normal use.

10.2. **Chemical stability**
The product is stable under storage at normal ambient temperatures.
Further remarks: SECTION 7: Handling and storage

10.3. **Possibility of hazardous reactions**
Can become highly flammable in use.

10.4. **Conditions to avoid**
Hazardous decomposition byproducts may form with exposure to high temperatures.
elektrostatic charging

10.5. **Incompatible materials**
Keep away from strong acids, strong bases and strong oxidizing agents to avoid exothermic reactions.
Do not store together with oxidizing and self-igniting products.
Keep away from: Reducing agent

10.6. **Hazardous decomposition products**
In case of fire may be liberated: carbon dioxide, carbon monoxide, Explosive vapour/air mixture, Pyrolysis products, toxic.

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

Xylene
oral, LD50, Rat: 3523 mg/kg
dermal, LD50, Rabbit: > 1700 mg/kg
inhalative (vapours), LC50, Rat: 12,83 mg/L (4 h)

butanone
oral, LD50, Rat: 2193 mg/kg
Method: OECD 423
dermal, LD50, Rabbit: 5000 mg/kg
inhalative (vapours), LC50, Rat: 34 mg/L (4 h)

4-methylpentan-2-one
oral, LD50, Rat: 2080 mg/kg
Method: OECD 401
dermal, LD50, Rat: > 2000 mg/kg
Method: OECD 402
dermal, LD50, Rabbit: > 2000 mg/kg
inhalative (vapours), LC50, Rat: 12,4 mg/L (4 h)
Method: OECD 403

n-butyl acetate
oral, LD50, Rat: 10760 mg/kg
Method: OECD 423
dermal, LD50, Rat: > 14000 mg/kg
dermal, LD50, Rabbit: > 14000 mg/kg
Method: OECD 402
inhalative (vapours), LC50, Rat: > 21 mg/L (4 h)

Method: OECD 403

2-methoxy-1-methylethyl acetate
oral, LD50, Rat: > 5000 mg/kg
Method: OECD 401
dermal, LD50, Rat: > 2000 mg/kg
dermal, LD50, Rabbit: > 5000 mg/kg
inhalative (vapours), LC50, Rat: 35,7 mg/L (4 h)

Hydroxyphenyl-benzotriazole derivatives
oral, LD50, Rat: > 5000 mg/kg
Method: OECD 401
dermal, LD50, Rat: > 2000 mg/kg
Method: OECD 402

nitrocellulose
oral, LD50, Rat: > 2000 mg/kg
Method: OECD 401

reaction mass of ethylbenzene and xylene
oral, LD50, Rat: 3523 mg/kg

Skin corrosion/irritation; Serious eye damage/eye irritation

Causes serious eye irritation.

Xylene
eyes, Rabbit
Irritant

butanone
Skin, Rabbit
Method: OECD 404
mild irritant.
eyes, Rabbit
Method: OECD 405
Causes serious eye irritation.

n-butyl acetate
Skin, Rabbit
Method: OECD 404
non-irritant.
eyes, Rabbit
Method: OECD 405
non-irritant.

2-methoxy-1-methylethyl acetate
Skin, Rabbit
Method: OECD 404
non-irritant.
eyes, Rabbit
Method: OECD 405
non-irritant.

nitrocellulose
Skin, Rabbit (4 h)
Method: OECD 404
non-irritant.
eyes, Rabbit (24 h)
Method: OECD 405
non-irritant.

Respiratory or skin sensitisation

Xylene
Skin, Mouse:
Method: OECD 429
not sensitising.

butanone
Skin, Guinea pig:

Method: OECD 406
not sensitising.

4-methylpentan-2-one
Skin, Guinea pig:
Method: OECD 406
not sensitising.

n-butyl acetate
Skin, Guinea pig:
Method: OECD 406
not sensitising.

2-methoxy-1-methylethyl acetate
Skin, Guinea pig:
Method: OECD 406
not sensitising.

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

butanone
Germ cell mutagenicity
Ames test negative.

4-methylpentan-2-one
Germ cell mutagenicity
Ames test negative.

n-butyl acetate
Germ cell mutagenicity
Ames test negative.

STOT-single exposure; STOT-repeated exposure

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]
There is no information available on the preparation itself .
Do not allow to enter into surface water or drains.

12.1. **Toxicity**

Xylene
Fish toxicity, LC50, Oncorhynchus mykiss (Rainbow trout): 13,4 mg/L (96 h)

butanone
Fish toxicity, LC50, Pimephales promelas: 2993 mg/L (96 h)
Method: OECD 203
Daphnia toxicity, EC50, Daphnia magna: 308 mg/L (48 h)
Method: OECD 202
Algae toxicity, ErC50, Pseudokirchneriella subcapitata: 2029 mg/L (72 h)
Method: OECD 201

4-methylpentan-2-one
Fish toxicity, LC50, Danio rerio (zebrafish): > 179 mg/L (96 h)
Method: OECD 203
Daphnia toxicity, EC50, Daphnia magna: 170 mg/L (48 h)

Method: OECD 202
Algae toxicity, ErC50, Selenastrum capricornutum: 400 mg/L (96 h)

n-butyl acetate
Algae toxicity, ErC50, Selenastrum capricornutum: 397 mg/L (72 h)
Method: OECD 201

2-methoxy-1-methylethyl acetate
Fish toxicity, LC50, Oncorhynchus mykiss (Rainbow trout): 134 mg/L (96 h)
Method: OECD 203
Daphnia toxicity, EC50, Daphnia magna: 373 mg/L (48 h)
Algae toxicity, ErC50, Selenastrum capricornutum: > 1000 mg/L (72 h)
Method: OECD 201

Hydroxyphenyl-benzotriazole derivatives
Fish toxicity, LC50, Oncorhynchus mykiss (Rainbow trout): 2,8 mg/L (96 h)
Method: OECD 203
Daphnia toxicity, EC50, Daphnia magna (Big water flea): 4 mg/L (48 h)
Method: OECD 202

nitrocellulose
Fish toxicity, LC50, Danio rerio (zebrafish): > 5000 mg/L (96 h)
Method: OECD 203
Daphnia toxicity, EC50, Daphnia magna: > 10000 mg/L (48 h)
Method: OECD 202
Algae toxicity, ErC50, Scenedesmus subspicatus: > 90000 mg/L (72 h)
Method: OECD 201

Long-term Ecotoxicity

n-butyl acetate
Algae toxicity, NOEC, Desmodesmus subspicatus.: 200 mg/L
Inhibition of growth rate.

12.2. **Persistence and degradability**

butanone
Biodegradation: 98 % (28 d)
Method: OECD 301D

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

n-butyl acetate
Biodegradation: 83 % (28 d)
Method: OECD 301D
Readily biodegradable.

2-methoxy-1-methylethyl acetate
Biodegradation: 83 % (28 d)
Method: OECD 301 F
Readily biodegradable.

Hydroxyphenyl-benzotriazole derivatives
Biodegradation: 24 % (28 d)
Method: OECD 301B/ ISO 9439/ EEC 92/69/V, C.4-C
Not readily biodegradable (according to OECD criteria)

nitrocellulose
Biodegradation: > 60 % (10 d)
Method: OECD 301B

reaction mass of ethylbenzene and xylene
Biodegradation: 90 % (28 d)
Method: OECD 301 F

12.3. **Bioaccumulative potential**

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

Bioconcentration factor (BCF)

n-butyl acetate
Bioconcentration factor (BCF): 15,3

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. Do not dispose of with domestic refuse.
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.
The mentioned waste-classes are only an advice because according to EU-Law the wate-class must be defined by the origin of the waste . The correct waste code may differ and must be classified by the waste owner. The waste-disposer and the municipal waste offices will help.

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
Empty container completely.
Non-contaminated packages may be recycled.
Vessels not properly emptied are special waste.
Do not perforate, cut up or weld uncleaned container.
Residues may present a risk of explosion.

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)	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/E

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]
VOC-value (in g/L): 749,654

National regulations

Restrictions of occupation
Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).

15.2. **Chemical Safety Assessment**
Chemical safety assessments for substances in this mixture were not carried out.

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.
Acute Tox. 4 / H312	Acute toxicity (dermal)	Harmful in contact with skin.
Acute Tox. 4 / H332	Acute toxicity (inhalative)	Harmful if inhaled.
Skin Irrit. 2 / H315	Skin corrosion/irritation	Causes skin irritation.
STOT SE 3 / H335	STOT-single exposure	May cause respiratory irritation.
STOT RE 2 / H373	STOT-repeated exposure	May cause damage to organs (or state all organs affected, if known) through prolonged or repeated exposure (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard).
Asp. Tox. 1 / H304	Aspiration hazard	May be fatal if swallowed and enters airways.
Expl. 1.1 / H201	Explosives	Explosive; mass explosion hazard.
Aquatic Chronic 3 / H412	Hazardous to the aquatic environment	Harmful to aquatic life with long lasting effects.
Skin Sens. 1 / H317	Respiratory or skin sensitisation	May cause an allergic skin reaction.
Aquatic Chronic 2 / H411	Hazardous to the aquatic environment	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]

Flam. Liq. 2	Flammable liquids	On basis of test data.
Eye Irrit. 2	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.