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

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

1.1. **Product identifier**

Article No. (manufacturer/supplier):	09-72
Trade name/designation	Hammerschlag Effektlack aluminium glänzend UFI: FPHN-6JR9-YG09-XJ3X

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

Relevant identified uses:
Varnish / paint

Uses advised against:
Aware of any other information

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

Supplier (manufacturer/importer/only representative/downstream user/distributor)

P.A. Jansen GmbH u. Co., KG
Hochstadenstraße 22
D-53474 Bad Neuenahr-Ahrweiler

Telephone: +49 2641 3897-0

Homepage: www.jansen.de

Department responsible for information:
laboratory
E-mail (competent person) sicherheitsdatenblatt@jansen.de

1.4. **Emergency telephone number**
Emergency telephone number +49 2641 3897-51
Only available during office hours.

SECTION 2: Hazards identification

2.1. **Classification of the substance or mixture**

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

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

Flam. Liq. 3 / H226	Flammable liquids	Flammable liquid and vapour.
STOT SE 3 / H335	STOT-single exposure	May cause respiratory 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

Warning

Hazard statements

H226	Flammable liquid and vapour.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H412	Harmful to aquatic life with long lasting effects.

Precautionary statements

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P271	Use only outdoors or in a well-ventilated area.
P370 + P378.6	In case of fire: Use carbon dioxide, extinguishing powder or alcohol-resistant foam to extinguish.
P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard components for labelling

hydrocarbons, C9, aromatics
n-butyl acetate

Supplemental hazard information

EUH066 Repeated exposure may cause skin dryness or cracking.
EUH208 Contains phthalic anhydride. May produce an allergic reaction.

2.3. **Other hazards**

No information available.

SECTION 3: Composition/information on ingredients

3.2. **Mixtures**

Description Alkyd paint

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 / EUH066	15 - 20
918-668-5	01-2119455851-35 hydrocarbons, C9, aromatics STOT SE 3 H335 / STOT SE 3 H336 / Asp. Tox. 1 H304 / Aquatic Chronic 2 H411 / Flam. Liq. 3 H226 / EUH066	15 - 20
905-562-9 128601-23-0	01-2119555267-33 Reaction product 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	8 - 10
918-481-9	01-2119457273-39 Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2 % aromatics Asp. Tox. 1 H304 / EUH066	2 - 2,5
201-607-5 85-44-9 607-009-00-4	01-2119457017-41 phthalic anhydride Acute Tox. 4 H302 / STOT SE 3 H335 / Skin Irrit. 2 H315 / Eye Dam. 1 H318 / Resp. Sens. 1 H334 / Skin Sens. 1 H317 Acute toxicity estimate (ATE): ATE (oral): 1530 mg/kg bw	0,5 - 1
919-446-0 64742-82-1	01-2119458049-33 Naphtha, hydrodesulfuriert, schwer; Naphtha, STOT SE 3 H336 / STOT RE 1 H372 / Asp. Tox. 1 H304 / Aquatic Acute 1 H400 / Aquatic Chronic 2 H411 / Flam. Liq. 3 H226	0,5 - 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. 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. Do not allow water used to extinguish fire to enter drains, ground or waterways. Cool closed containers that are near the source of the fire.

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.

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 5 °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

Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2 % aromatics
EC No. 918-481-9

WEL, TWA: 800 mg/m3
Remark: (> or = C7, Cycloalkanes)

WEL, TWA: 1200 mg/m3
Remark: (alkanes>= C7)

phthalic anhydride
Index No. 607-009-00-4 / EC No. 201-607-5 / CAS No. 85-44-9

WEL, TWA: 4 mg/m3
WEL, STEL: 12 mg/m3

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

DNEL:

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: 11 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: 300 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: 6 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: 35,7 mg/m³

Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2 % aromatics
EC No. 918-481-9
DNEL long-term dermal (systemic), Workers: 300 mg/kg
DNEL long-term oral (repeated), Consumer: 300 mg/kg
DNEL long-term dermal (systemic), Consumer: 300 mg/kg
DNEL long-term inhalative (systemic), Consumer: 900 mg/m³

PNEC:

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: 0,093 mg/kg
PNEC sewage treatment plant (STP): 35,6 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.Observe the weartime limits as specified by the manufacturer. Recommended respiratory protection articles: Inadequately ventilated workplaces and spraying procedures are necessary. Fresh air mask or short-time work combination filter A2-P2 are recommended.

Hand protection
For prolonged or repeated handling the following glove material must be used: NBR (Nitrile rubber)
Thickness of the glove material > 0,4 mm ; Breakthrough time: > 480 min.
Observe the instructions and details for use, storage, maintenance and replacement provided by the protective glove manufacturer. Penetration time of glove material depending on intensity and duration of exposure to skin. Recommended glove articles EN ISO 374
Barrier creams can help protecting exposed skin areas. In no case should they be used after contact.

Eye/face protection
Wear closely fitting protective glasses in case of splashes.

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

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

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

SECTION 9: Physical and chemical properties

9.1. **Information on basic physical and chemical properties**

Physical state:	**Liquid**
Colour:	**silver**
Odour:	**characteristic**
Odour threshold:	**No data available**
Melting point/freezing point:	**-90 °C** Source: n-butyl acetate
Initial boiling point and boiling range:	**126 °C** Source: n-butyl acetate
Flammability:	**Flammable liquid and vapour.**
Lower and upper explosion limit:	
Lower explosion limit:	**1,2 Vol-%** Method: literature value Source: n-butyl acetate
Upper explosion limit:	**7,5 Vol-%** Method: literature value Source: n-butyl acetate
Flash point:	**35 °C** Method: EN ISO 1523
Auto-ignition temperature:	**415 °C** Source: n-butyl acetate
Decomposition temperature:	**No data available**
pH at 20 °C:	**No data available**
Kinematic viscosity (40°C):	**> 20,5 mm²/s**
Viscosity at °C:	**thixotrop**
Solubility(ies):	

Water solubility at 20 °C:	**insoluble**
Partition coefficient: n-octanol/water:	**see section 12**
Vapour pressure at 20 °C:	**11,2 mbar** Source: n-butyl acetate
Density and/or relative density:	
Density at 20 °C:	**1,05 g/cm³** Method: DIN 53217
Relative vapour density:	**No data available**
particle characteristics:	**not applicable**

9.2. **Other information**

Solid content:	**52 weight-%**
solvent content:	
Organic solvents:	**48 weight-%**
Water:	**0 weight-%**
Solvent separation test:	**< 3 weight-% (ADR/RID)**

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

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

Acute toxicity

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: > 21 mg/L (4 h)
Method: OECD 403

phthalic anhydride
oral, LD50, Rat: > 1530 mg/kg

Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2 % aromatics
oral, LD50, Rat: > 5000 mg/kg
Method: OECD 401
dermal, LD50, Rabbit: > 5000 mg/kg
Method: OECD 402
inhalative (vapours), LC50, Rat: > 4951 mg/L (4 h)
Method: OECD 403

Skin corrosion/irritation; Serious eye damage/eye irritation

n-butyl acetate
Skin (4 h)

Method: OECD 404
slightly irritant
eyes, Rabbit
Method: OECD 405
slightly irritant

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 respiratory irritation.

May cause drowsiness or dizziness.

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

phthalic anhydride
Specific target organ toxicity (single exposure), Irritation
Irritation to respiratory tract

Aspiration hazard

Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2 % aromatics
Aspiration hazard

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.

Remark

There is no information available on the preparation itself .

11.2. **Information on other hazards**

Endocrine disrupting properties
No information available.

SECTION 12: Ecological information

Classification according to Regulation (EC) No 1272/2008 [CLP]
There is no information available on the preparation itself .
Do not allow to enter into surface water or drains.

12.1. **Toxicity**

n-butyl acetate
Fish toxicity, LC50, Pimephales promelas: 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, ErC50, Desmodesmus subspicatus: 397 mg/L (72 h)
Method: OECD 201
Cell proliferation inhibition test
Bacteria toxicity, EC50: 356 mg/L (40 h)

Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2 % aromatics
Fish toxicity, LC50, Oncorhynchus mykiss (Rainbow trout): > 1000 mg/L (96 h)
Method: OECD 203
Daphnia toxicity, EC50, Daphnia magna: > 1000 mg/L (48 h)
Method: OECD 202

Algae toxicity, EC50, Pseudokirchneriella subcapitata: > 1000 mg/L
Method: OECD 201

Long-term Ecotoxicity

Harmful to aquatic life with long lasting effects.

n-butyl acetate
Daphnia toxicity, NOEC, Daphnia magna: 23 mg/L (21 d)
Method: OECD 211
Algae toxicity, NOEC, Pseudokirchneriella subcapitata: 105 mg/L (72 h)

12.2. **Persistence and degradability**

n-butyl acetate
Biodegradation: 83 % (28 d); Evaluation Readily biodegradable (according to OECD criteria)
Method: OECD 301D/ EEC 92/69/V, C.4-E

Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2 % aromatics
Biodegradation: 80 % (28 d); Evaluation Readily biodegradable (according to OECD criteria)
Method: OECD 301F

12.3. **Bioaccumulative potential**

n-butyl acetate
Partition coefficient n-octanol /water (log P O/W):: 2,3
Method: OECD 117

phthalic anhydride
Partition coefficient n-octanol /water (log P O/W):: 1,6

Bioconcentration factor (BCF)

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

12.4. **Mobility in soil**

n-butyl acetate
Surface tension:: 61,3 mN/m
Method: OECD 115

12.5. **Results of PBT and vPvB assessment**

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

12.6. **Endocrine disrupting properties**
No information available.

12.7. **Other adverse effects**
No information available.

SECTION 13: Disposal considerations

13.1. **Waste treatment methods**

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

List of proposed waste codes/waste designations in accordance with EWC
080111* Waste paint and varnish containing organic solvents or other dangerous substances
*Hazardous waste according to Directive 2008/98/EC (waste framework directive).

Appropriate disposal / Package
Recommendation
Non-contaminated packages may be recycled. Vessels not properly emptied are special waste.

SECTION 14: Transport information

14.1. **UN number or ID number**
UN 1263

14.2. **UN proper shipping name**
Land transport (ADR/RID): Paint

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

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

Land transport (ADR/RID):	Not goods of class 3 in containers > 450 l Class 3
Sea transport (IMDG)	3
for packages < = 450 litres	Transport in accordance with 2.3.2.5 of the IMDG Code.
Air transport (ICAO-TI / IATA-DGR)	3

14.4. **Packing group**

III

14.5. **Environmental hazards**

Land transport (ADR/RID)	No data available
Marine pollutant	No data 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

Sea transport (IMDG)

EmS-No.	F-E, S-E

14.7. **Maritime transport in bulk according to IMO instruments**

No transport as bulk according IBC - Code.

SECTION 15: Regulatory information

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

EU legislation

Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances [Seveso-III-Directive]
Category: P5c FLAMMABLE LIQUIDS
Quantity 1: 5000 t / Quantity 2: 50000 t

Directive 2004/42/EC on the limitation of emissions of volatile organic compounds
VOC product category: (Cat. A/i) ; VOC limit value: 500 g/l
Maximum VOC content of the product in a ready to use condition (in g/L): 500

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 juveniles according to the 'juvenile work protection guideline' (94/33/EC).

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
918-668-5	hydrocarbons, C9, aromatics	01-2119455851-35
905-562-9 128601-23-0	Reaction product of ethylbenzene and xylene	01-2119555267-33
918-481-9	Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2 % aromatics	01-2119457273-39
201-607-5 85-44-9	phthalic anhydride	01-2119457017-41
919-446-0 64742-82-1	Naphtha, hydrodesulfuriert, schwer; Naphtha,	01-2119458049-33

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.
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 / 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.
Eye Irrit. 2 / H319	Serious eye damage/eye irritation	Causes serious eye 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).
Acute Tox. 4 / H302	Acute toxicity (oral)	Harmful if swallowed.
Eye Dam. 1 / H318	Serious eye damage/eye irritation	Causes serious eye damage.
Resp. Sens. 1 / H334	Respiratory or skin sensitisation	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin Sens. 1 / H317	Respiratory or skin sensitisation	May cause an allergic skin reaction.
STOT RE 1 / H372	STOT-repeated exposure	Causes 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).
Aquatic Acute 1 / H400	Hazardous to the aquatic environment	Very toxic to aquatic organisms.

Classification procedure

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

Flam. Liq. 3	Flammable liquids	On basis of test data.
STOT SE 3	STOT-single exposure	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
MAK	Maximum wokplace concentration
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

Data sources
Data arise from reference works and literature.

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.