

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



Article No.:	40-5-99	Härter für 2K-Aqua Hallenmarkierung MB	
Print date:	28.01.2026	Revision date: 19.11.2025	EN
Version:	1.1	Issue date: 19.11.2025	Page 1 / 9

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

1.1. Product identifier

Article No. (manufacturer/supplier):	40-5-99
Trade name/designation	Härter für 2K-Aqua Hallenmarkierung MB
	UFI: EP2P-EJDW-MG09-W4GQ

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

Relevant identified uses

Hardener for 2 component coating; use only in conjunction with 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	Telephone: +49 2641 3897-0
D-53474 Bad Neuenahr-Ahrweiler	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].

Skin Irrit. 2 / H315	Skin corrosion/irritation	Causes skin irritation.
Eye Irrit. 2 / H319	Serious eye damage/eye irritation	Causes serious eye irritation.
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.

2.2. Label elements

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

Hazard pictograms



Warning

Hazard statements

H315	Causes skin irritation.
H319	Causes serious eye irritation.
H317	May cause an allergic skin reaction.
H411	Toxic 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.
P264	Wash hands thoroughly after handling.
P280	Wear protective gloves and eye protection/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.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard components for labelling

bis-[4-(2,3-epoxipropoxy)phenyl]propane
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol

Supplemental hazard information

EUH205	Contains epoxy constituents. May produce an allergic reaction.
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2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Description Mixture with the substances listed below with additions

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

EC No. CAS No. Index No.	REACH No. Designation classification: // Remark	weight-%
216-823-5 1675-54-3 603-073-00-2	01-2119456619-26 bis-[4-(2,3-epoxipropoxy)phenyl]propane Skin Irrit. 2 H315 / Eye Irrit. 2 H319 / Skin Sens. 1 H317 / Aquatic Chronic 2 H411 Specific concentration limit (SCL): Skin Irrit. 2 H315 >= 5 / Eye Irrit. 2 H319 >= 5	50 - 70
701-263-0	01-2119454392-40 Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol Skin Irrit. 2 H315 / Skin Sens. 1 H317 / Aquatic Chronic 2 H411	15 - 20

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.

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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 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
No special measures are required.
- 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 8 °C and 30 °C. Protect from heat and direct sunlight.
- 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
No data available

DNEL:

bis-[4-(2,3-epoxipropoxy)phenyl]propane
Index No. 603-073-00-2 / EC No. 216-823-5 / CAS No. 1675-54-3
DNEL acute dermal, short-term (systemic), Workers: 8,3 mg/kg
DNEL long-term dermal (systemic), Workers: 8,3 mg/kg
DNEL acute inhalative (systemic), Workers: 12,3 mg/m³
DNEL long-term inhalative (systemic), Workers: 12,3 mg/m³
DNEL short-term oral (acute), Consumer: 0,75 mg/kg
DNEL long-term oral (repeated), Consumer: 0,75 mg/kg
DNEL acute dermal, short-term (systemic), Consumer: 3,6 mg/kg
DNEL long-term dermal (systemic), Consumer: 3,6 mg/kg
DNEL acute inhalative (systemic), Consumer: 0,75 mg/m³
DNEL long-term inhalative (systemic), Consumer: 0,75 mg/m³

Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol
EC No. 701-263-0

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DNEL acute dermal, short-term (local), Workers: 0,0083 mg/cm²
DNEL long-term dermal (systemic), Workers: 104,15 mg/kg
DNEL long-term inhalative (systemic), Workers: 29,39 mg/m³
DNEL long-term oral (repeated), Consumer: 6,25 mg/kg
DNEL long-term dermal (systemic), Consumer: 62,5 mg/kg
DNEL long-term inhalative (systemic), Consumer: 8,7 mg/m³

PNEC:

bis-[4-(2,3-epoxipropoxy)phenyl]propane
Index No. 603-073-00-2 / EC No. 216-823-5 / CAS No. 1675-54-3

PNEC aquatic, freshwater: 0,006 mg/L
PNEC aquatic, marine water: 0,0006 mg/L
PNEC aquatic, intermittent release: 0,018 mg/L
PNEC sediment, freshwater: 0,996 mg/kg
PNEC sediment, marine water: 0,0996 mg/kg
PNEC, soil: 0,196 mg/kg
PNEC sewage treatment plant (STP): 10 mg/L

Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol

EC No. 701-263-0
PNEC aquatic, freshwater: 0,003 mg/L
PNEC aquatic, marine water: 0,0003 mg/L
PNEC aquatic, intermittent release: 0,025 mg/L
PNEC sediment, freshwater: 0,294 mg/kg
PNEC sediment, marine water: 0,0294 mg/kg
PNEC, soil: 0,237 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. Observe the wear time 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.

Eye/face protection

Wear closely fitting protective glasses in case of splashes.

Body protection

No special measures are necessary.

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:	misty
Odour:	characteristic
Odour threshold:	No data available

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Melting point/freezing point:	-16 °C Source: bis-[4-(2,3-epoxipropoxy)phenyl]propane
Initial boiling point and boiling range:	100 °C Source: Water
Flammability:	No data available
Lower and upper explosion limit:	
Lower explosion limit:	No data available
Upper explosion limit:	No data available
Flash point:	No data available
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
pH at 20 °C:	7 - 8 / 100,0 weight-%
Kinematic viscosity (40°C):	> 318,18 mm²/s
Viscosity at 20 °C:	350 mPa* s
Solubility(ies):	
Water solubility at 20 °C:	partially soluble
Partition coefficient: n-octanol/water:	see section 12
Vapour pressure at 20 °C:	No data available
Density and/or relative density:	
Density at 20 °C:	1,10 g/cm³ Method: DIN 53217
Relative vapour density:	No data available
particle characteristics:	not applicable
9.2. Other information	
Solid content:	67 weight-%
solvent content:	
Organic solvents:	0 weight-%
Water:	33 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**
Stable when applying the recommended regulations for storage and handling. Further information on correct storage: refer to section 7. 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

bis-[4-(2,3-epoxipropoxy)phenyl]propane

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oral, LD50, Rat: > 15000 mg/kg
dermal, LD50, Rabbit: 23000 mg/kg

Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol

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

Skin corrosion/irritation; Serious eye damage/eye irritation

Causes skin irritation.

Causes serious eye irritation.

bis-[4-(2,3-epoxipropoxy)phenyl]propane
Skin (4 h)

Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol
Skin
Causes skin and eye irritation.

Respiratory or skin sensitisation

May cause an allergic skin reaction.

bis-[4-(2,3-epoxipropoxy)phenyl]propane
Skin:

Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol
Skin, Guinea pig: ; Evaluation Sensitising
May cause an allergic skin reaction.

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

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

STOT-single exposure; STOT-repeated exposure

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

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.

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

bis-[4-(2,3-epoxipropoxy)phenyl]propane
Fish toxicity, LC50, Oncorhynchus mykiss (Rainbow trout): 2 mg/L (96 h)
Daphnia toxicity, EC50, Daphnia magna (Big water flea): 1,8 mg/L (48 h)
Algae toxicity, EC50, Selenastrum capricornutum: 11 mg/L (72 h)
Bacteria toxicity, EC50: > 42,6 mg/L (8 h)

Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol

Daphnia toxicity, EC50, Daphnia magna: 2,55 mg/L (48 h)
Algae toxicity, EC50, Selenastrum capricornutum: 1,8 mg/L (72 h)

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Method: OECD 201
Fish toxicity, EC50, Leuciscus idus (golden orfe): 2,54 mg/L (96 h)

Long-term Ecotoxicity

Toxic to aquatic life with long lasting effects.

bis-[4-(2,3-epoxipropoxy)phenyl]propane

Daphnia toxicity, NOEC, Daphnia magna (Big water flea): 0,55 mg/L (21 d)

12.2. Persistence and degradability

bis-[4-(2,3-epoxipropoxy)phenyl]propane

Biodegradation: 12 % (28 d); Evaluation Not readily biodegradable (according to OECD criteria)

Method: OECD 302B/ ISO 9888/ EEC 92/69/V, C.9.

Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol

Biodegradation: Evaluation Not readily biodegradable (according to OECD criteria)

12.3. Bioaccumulative potential

bis-[4-(2,3-epoxipropoxy)phenyl]propane

Partition coefficient: n-octanol/water: 3,242

Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol

Partition coefficient n-octanol /water (log P O/W):: 3,6

Method: OECD 117

Bioconcentration factor (BCF)

bis-[4-(2,3-epoxipropoxy)phenyl]propane

Bioconcentration factor (BCF): 100 - 3000

Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol

Bioconcentration factor (BCF): 150
estimated

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. 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 3082

14.2. UN proper shipping name

Land transport (ADR/RID):

Environmentally hazardous substance, liquid, n.o.s.
(4,4'-Methylen diphenyldiglycidylether, Formaldehyde, oligomerische Reaktionsprodukte mit 1-Chlor-2, 3-Epoxypropan und Phenol)

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Sea transport (IMDG):	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (4,4'-Methylen diphenyldiglycidylether, Formaldehyde, oligomerische Reaktionsprodukte mit 1-Chlor-2, 3-Epoxypropan und Phenol)
Air transport (ICAO-TI / IATA-DGR):	Environmentally hazardous substance, liquid, n.o.s. (4,4'-Methylen diphenyldiglycidylether, Formaldehyde, oligomerische Reaktionsprodukte mit 1-Chlor-2, 3-Epoxypropan und Phenol)
14.3. Transport hazard class(es)	9
14.4. Packing group	III
14.5. Environmental hazards	
Land transport (ADR/RID)	UMWELTGEFÄHRDEND
Marine pollutant	p / 4,4'-Methylen diphenyldiglycidylether
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	-
in packages <= 5 litres	Kein Gut der Klasse 9 Sondervorschr. 375
Sea transport (IMDG)	
EmS-No.	F-A, S-F
in packages <= 5 litres	not restricted 2.10.7
Air transport (ICAO-TI / IATA-DGR)	
in packages <= 5 litres	Not restricted
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: E2 Hazardous to the aquatic environment in Category Chronic 2	
Quantity 1: 200 t / Quantity 2: 500 t	
Directive 2004/42/EC on the limitation of emissions of volatile organic compounds	
VOC product category: (Cat. A/j) ; VOC limit value: 140 g/l	
Maximum VOC content of the product in a ready to use condition (in g/L): 140	
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.	Designation
CAS No.	REACH No.
216-823-5	bis-[4-(2,3-epoxipropoxi)phenyl]propane
1675-54-3	
701-263-0	Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol

SECTION 16: Other information

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Full text of classification in section 3:

Skin Irrit. 2 / H315	Skin corrosion/irritation	Causes skin irritation.
Eye Irrit. 2 / H319	Serious eye damage/eye irritation	Causes serious eye irritation.
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]

Skin Irrit. 2	Skin corrosion/irritation	Calculation method.
Eye Irrit. 2	Serious eye damage/eye irritation	Calculation method.
Skin Sens. 1	Respiratory or skin sensitisation	Calculation method.
Aquatic Chronic 2	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 workplace 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.

* Data changed compared with the previous version