



**Special labelling of particular preparations:**  
none

## 2.3. Other hazards

-

## SECTION 3: Composition / information on ingredients

### 3.1. Substances

not applicable

### 3.2. Mixtures

The mixture consists of components that are not classified according to Regulation (EC) No. 1272/2008 [CLP].

#### Composition/information on ingredients

Substance:	CAS-No.:	REACH-no.:	Concentration:	Classification: EC 1272/2008 (CLP):	M, ATE, Note
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(Full text of H- and EUH-statements: see section 16.)

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

**General information:** First aider: Pay attention to self-protection!  
**In case of inhalation:** Provide fresh air. Seek medical attention if problems persist.  
**Following skin contact:** After contact with skin, wash immediately with plenty of water and soap. In case of skin irritation, consult a physician.  
**After eye contact:** In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist.  
**After ingestion:** Rinse mouth immediately and drink plenty of water. Do NOT induce vomiting. Get medical advice/attention if you feel unwell.

### 4.2. Most important symptoms and effects, both acute and delayed

erythema (redness)

### 4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

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

### 5.2. Special hazards arising from the substance or mixture

Not readily flammable

### 5.3. Advice for firefighters

### General information

Co-ordinate fire-fighting measures to the fire surroundings.

### Special protective equipment for fire-fighters:

In case of fire: Wear self-contained breathing apparatus.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

Remove persons to safety. Remove all sources of ignition. Provide adequate ventilation. Wear personal protection equipment.

### 6.2. Environmental precautions

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

### 6.3. Methods and material for containment and cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

### 6.4. Reference to other sections

Safe handling: see section 7 Personal protection equipment: see section 8 Disposal: see section 13

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

#### Advices on safe handling

No special measures are necessary.

#### Precautions against fire and explosion:

No special fire protection measures are necessary.

### 7.2. Conditions for safe storage, including any incompatibilities

#### Requirements for storage rooms and vessels

Keep in a cool, well-ventilated place. Do not keep the container sealed.

#### Hints on joint storage

Do not store together with: Acids alkalines Powdered metals Release of: Hydrogen

### 7.3. Specific end use(s)

Observe instructions for use.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### occupational exposure limit value

Substance:	CAS-No.:		Source:	Occupational exposure limit value:[ppm]	Occupational exposure limit value:[mg/m³]	Limitation of exposure peaks:	Remark:

Substance with a common (EC) occupational exposure limit value.

Substance:	CAS-No.:	Source:	Occupational exposure limit value:[ppm]	Occupational exposure limit value:[mg/m³]	Limitation of exposure peaks:	Remark:
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**DNEL-/PNEC-values**  
**DNEL value**

Substance:	CAS-No.:	DNEL/DMEL
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**PNEC Value**

Substance:	CAS-No.:	PNEC
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**Additional information**  
none

## 8.2. Exposure controls

**Occupational exposure controls:**

Technical measures and the application of suitable work processes have priority over personal protection equipment.

**General protection and hygiene measures:**

When using do not eat, drink, smoke, sniff. Wash hands before breaks and after work. Apply skin care products after work. Wash contaminated clothing prior to re-use.

**Personal protection equipment**

Minimum standard for preventive measures while handling with working materials are specified in the TRGS 500.

**Respiratory protection**

With correct and proper use, and under normal conditions, breathing protection is not required.

**Hand protection**

Tested protective gloves are to be worn: DIN-/EN-Norms: EN ISO 374 Suitable material: Butyl rubber.

**Eye/face protection**

Eye glasses with side protection

**Body protection:**

Wear suitable protective clothing.

**Environmental exposure controls**

refer to chapter 7. No further action is necessary.

**Consumer exposure controls**

refer to chapter 7. No further action is necessary.

**Exposure Scenario:**

Skin contact

## SECTION 9: Physical and chemical properties

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

**Appearance**

**Physical state:** viscous  
**Colour:** orange / white  
**Odour:** odourless  
**Odour threshold:** No data available

**Safety relevant basis data**

	parameter	Value	unit	Remark
Melting point/freezing point:				No data available
Initial boiling point and boiling range:				No data available
Flammability:				No data available
lower flammability or explosive limits:		74	Vol-%	Hydrogen
Upper flammability or explosive limits:		4	Vol-%	Hydrogen
Flash point:	>	150	°C	No data available
Ignition temperature:	>	200	°C	No data available
Decomposition temperature:				No data available
pH:				No data available
Kinematic viscosity:	°C		Pa*s	No data available
Water solubility (g/L):				No data available
Partition coefficient: n-octanol/water:				No data available
Vapour pressure:				No data available
Density:		1,01	g/mL	No data available
Relative density:				No data available
Particle properties:				No data available

## 9.2. Other information

none

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No hazardous reaction when handled and stored according to provisions.

### 10.2. Chemical stability

With proper storage and handling the product is stable.

### 10.3. Possibility of hazardous reactions

May generate flammable hydrogen gas. Avoid contact with water, alcohols, acidic, basic, or oxidizing materials. Potential for exothermic hazard.

### 10.4. Conditions to avoid

heat. Keep away from sources of ignition - No smoking.

### 10.5. Incompatible materials

Oxidizing agent Acid. Alkalis (alkalis). metal.

### 10.6. Hazardous decomposition products

Hydrogen.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

There are no data available on the preparation/mixture itself.

M-factor:	-	Acute toxicity (dermal):	-
Acute toxicity (oral):	-	Acute toxicity (inhalative):	-

### Acute toxicity

Substance:	CAS-No.:	Toxicological information
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#### Skin corrosion/irritation:

There are no data available on the preparation/mixture itself.

#### Serious eye damage/irritation:

There are no data available on the preparation/mixture itself.

#### Respiratory or skin sensitisation:

There are no data available on the preparation/mixture itself.

#### CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Carcinogenicity:

No information available.

Germ cell mutagenicity:

No information available.

Reproductive toxicity:

No information available.

#### STOT-single exposure:

No information available.

#### STOT-repeated exposure:

No information available.

#### Aspiration hazard:

There are no data available on the preparation/mixture itself.

## SECTION 12: Ecological information

### 12.1. Toxicity

There are no data available on the preparation/mixture itself.

#### Ecotoxicity

Substance:	CAS-No.:	Ecotoxicity
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### 12.2. Persistence and degradability

There are no data available on the mixture itself.

### 12.3. Bioaccumulative potential

There are no data available on the mixture itself.

### 12.4. Mobility in soil

There are no data available on the mixture itself.

### 12.5. Results of PBT and vPvB assessment

There are no data available on the mixture itself.

### 12.6 Endocrine disruptive effect

There are no data available on the mixture itself.

### 12.7. Other adverse effects

There are no data available on the mixture itself.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

#### Appropriate disposal/Product:

Dispose of waste according to applicable legislation. Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste. Must not be disposed together with household garbage.

#### Appropriate disposal / Package

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.

#### List of proposed waste codes / waste designations according to EWC / AVV

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

## SECTION 14: Transport information

### 14.1. UN number

UN No.: -

### 14.2. UN proper shipping name

Land transport (ADR/RID)

-  
-

Sea transport (IMDG), Air transport (ICAO-TI / IATA-DGR)

-  
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### 14.3. Transport hazard class(es)

Hazard label(s) / Label: -

Classification code: / Classification Code: -

### 14.4. Packing group

Packing group/ Packing Group: -

### 14.5. Environmental hazards

ADR/RID / IMDG / ICAO-TI / IATA-DGR:  
Marine pollutant:

Yes

☐  
☐

No

☒  
☒

### 14.6. Special precautions for user

Land transport (ADR/RID)

transport category: -  
Special provisions: -

tunnel restriction code: -  
Limited quantity (LQ): -

Sea transport (IMDG)

EmS-No: -

Special provisions: - Limited quantity (LQ): -

### 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Remark -

## SECTION 15: Regulatory information

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

#### EU legislation

**Information on Regulation (EC) No 166/2006 establishing a European Pollutant Release and Transfer Register:**

No information available.

**Regulation (EC) No. 1005/2009 on substances that lead to the depletion of the ozone layer:**

No information available.

**Regulation (EC) No. 648/2004 (Detergents regulation)**

No information available.

**Regulation (EC) No 850/2004 [POP-Regulation]:**

No information available.

**Regulation (EU) No 649/2012 on the export and import of dangerous chemicals:**

No information available.

**Use restriction according to REACH annex XVII, no.::**

No information available.

#### National regulations

Observe in addition any national regulations!

#### Restrictions of occupation

none

#### Other regulations, restrictions and prohibition regulations

-

### 15.2. Chemical Safety Assessment

**For this preparation a chemical safety assessment has been carried out.** no

For this substance a chemical safety assessment has not been carried out.

## SECTION 16: Other information

**Relevant H- and EUH-phrases (Number and full text):**

**Hazard statements**

-

#### Training advice

Observe instructions for use.

#### Recommended restrictions of use:

refer to chapter 1.

#### Further remarks:

none

#### Documentation of changes:

First version. Version number adjusted to german version.

### Key literature references and sources for data

Data arise from reference works and literature.

### Abbreviations and acronyms

AC: Artikelkategorie (Article Category)

ACGIH: Rat für Arbeitsschutz und Gefahrstoffe, Amerika (American Conference of Government Industrial Hygienists)

ADN: Europäisches Übereinkommen über die internationale Beförderung gefährlicher Güter auf Binnengewässern (Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures)

ADR: Europäisches Übereinkommen über die internationale Beförderung gefährlicher Güter auf der Straße (Accord européen relatif transport des marchandises dangereuses par route)

AGW: Arbeitsplatzgrenzwert

AOX: Adsorbierbare organisch gebundene Halogene (Adsorbable Organic halogen compounds)

Bw: Körpergewicht (Body weight)

CMR: Stoffe klassifiziert als Krebserzeugend, Mutagen oder Reproduktionstoxisch (Carcinogenic, Mutagenic, toxic for Reproduction)

CSR: Stoffsicherheitsbericht (Chemical Safety Report)

DIN: Deutsches Institut für Normung / Deutsche Industrienorm

DNEL: Grenzwert, unterhalb dessen der Stoff keine Wirkung ausübt (Derived No Effect Level)

DPD: Zubereitungsrichtlinie / Richtlinie 1999-45-EC (Dangerous Preparations Directive)

DSD: Stoffrichtlinie / Richtlinie 67-548-EC (Dangerous Substances Directive)

DU: Nachgeschalteter Anwender (Downstream User)

EC50: Wirksame Konzentration 50% (Effective Concentration 50%)

ECHA: Europäische Chemikalienagentur

EN: Europäische Norm

EWC/EWL: Europäischer Abfallartenkatalog (European Waste Catalogue)

IATA: Verband für den internationalen Lufttransport (International Air Transport Association)

IBC: Großpackmittel (Intermediate Bulk Container)

ICAO: Internationale Zivilluftfahrt-Organisation (International Civil Aviation Organization)

IMDG Code: Gefahrgutvorschriften für den internationalen Seetransport (International Maritime Dangerous Goods Code)

IMO: Internationale Seeschiffahrts-Organisation (International Maritime Organization)

ISO: Internationale Normungsorganisation (International Standards Organisation)

LC50: Lethale (Tödliche) Konzentration 50%

LD50: Lethale (Tödliche) Dosis 50%

LEV: Lokale Absaugung (Local exhaust ventilation)

MAK: Maximale Arbeitsplatzkonzentration – DFG

n.a.: nicht anwendbar

n.b.: nicht bestimmt

OEL: Arbeitsplatzgrenzwert (Occupational Exposure Limit)

PBT: persistent, bioakkumulierbar, giftig (persistent, bioaccumulative, toxic)

PNEC: Abgeschätzte Nicht-Effekt-Konzentration (Predicted No Effect Concentration)

PPE/PSA: Persönliche Schutzausrüstung (Personal Protective Equipment)

REACH: Registrierung, Bewertung und Zulassung von Chemikalien (Registration, Evaluation and Authorization of Chemicals)

RID: Gefahrgutvorschriften für den Transport mit der Eisenbahn (Règlement International concernant le transport de marchandises dangereuses par chemin de fer)

STEL: Grenzwert für Kurzzeiteexposition (Short-term Exposure Limit)

SVHC: Stoff sehr hoher Besorgnis (Substance of Very High Concern)

TLV: Arbeitsplatzgrenzwert (Threshold Limit Value)

VOC: Flüchtige organische Kohlenwasserstoffe (Volatile Organic Compounds)

vPvB: sehr persistent, sehr bioakkumulierbar (very persistent, very bioaccumulative)

dw: Trockenmasse (dry weight)