

# Zinc Chloride

## Safety Data Sheet

according to Regulation (EU) 2015/830

Date of issue: 01/03/2017

Doc No: SDS-996.026/1



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

#### 1.1. Product identifier

Product form : Substance  
Substance name : Zinc Chloride  
EC Index No : 030-003-00-2  
EC No : 231-592-0  
CAS No : 7646-85-7  
Type of product : Pure substance  
Formula : ZnCl<sub>2</sub>  
Chemical structure :



Synonyms : Butter of zinc / chloride of zinc / muriate of zinc / tinning flux / zinc butter / zinc chloride (ZnCl<sub>2</sub>) / zinc chloride fume / Zinc chloride, anhydrous / zinc chloride, powder / zinc dichloride / zinc(II) chloride / zincmuriate / zintrace

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

##### 1.2.1. Relevant identified uses

Use of the substance/mixture : Laboratory chemical  
Battery: component  
Chemical raw material  
Catalyst  
Pharmaceutical product: component  
Textile: production

##### 1.2.2. Uses advised against

Restrictions on use : No additional information available.

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

ISOLAB Laborgeräte GmbH  
Am Dillhof 2 - 63863 Eschau / GERMANY  
Tel: +49 93 74 / 978 55-0  
Fax: +49 93 74 / 978 55-29  
[prodsafe@isolab.de](mailto:prodsafe@isolab.de)

#### 1.4. Emergency telephone number

Country	Organisation/Company	Address	Emergency number	Comment
Turkey	Ulusal Zehir Merkezi (UZEM) Refik Saydam Hifzissihha Merkezi Başkanlığı	Cemal Gürsel Cd. No: 18 Sıhhiye Çankaya 06590 Ankara	114	Information is provided to public and medical personnel on poisoning incidents via 114.

### SECTION 2: Hazards identification

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

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

Acute toxicity (oral), Category 4 H302  
Skin corrosion/irritation, Category 1B H314  
Hazardous to the aquatic environment — Chronic Hazard, Category 1 H410

Full text of hazard classes and H-statements : see section 16

Specific concentration limits:  
(C >= 5) STOT SE 3, H335

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### Adverse physicochemical, human health and environmental effects

No additional information available

### 2.2. Label elements

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

Hazard pictograms (CLP) :



GHS05

GHS07

GHS09

Signal word (CLP) :

Danger

Hazard statements (CLP) :

H302 - Harmful if swallowed  
H314 - Causes severe skin burns and eye damage  
H410 - Very toxic to aquatic life with long lasting effects

Precautionary statements (CLP) :

P273 - Avoid release to the environment  
P280 - Wear protective gloves, eye protection, face protection, protective clothing  
P363 - Wash contaminated clothing before reuse  
P301+P330+P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting  
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P308 + P310 IF exposed or concerned: immediately call a POISON CENTER or doctor/physician.

### 2.3. Other hazards

No additional information available

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Name	Product identifier	%
Zinc Chloride	(CAS No) 7646-85-7 (EC No) 231-592-0 (EC Index No) 030-003-00-2	<=100

Full text of H-statements: see section 16

### 3.2. Mixtures

Not applicable

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures general	: Check the vital functions. Unconscious: maintain adequate airway and respiration. Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: perform resuscitation. Victim conscious with laboured breathing: half-seated. Victim in shock: on his back with legs slightly raised. Vomiting: prevent asphyxia/aspiration pneumonia. Prevent cooling by covering the victim (no warming up). Keep watching the victim. Give psychological aid. Keep the victim calm, avoid physical strain. Depending on the victim's condition: doctor/hospital.
First-aid measures after inhalation	: Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service. Doctor: administration of corticoid spray.
First-aid measures after skin contact	: Wash immediately with lots of water (15 minutes)/shower. Remove clothing while washing. Do not remove clothing if it sticks to the skin. Cover wounds with sterile bandage. Consult a doctor/medical service. If burned surface > 10%: take victim to hospital.
First-aid measures after eye contact	: Rinse immediately with plenty of water for 15 minutes. Take victim to an ophthalmologist. Do not apply neutralizing agents.
First-aid measures after ingestion	: Rinse mouth with water. Immediately after ingestion: give lots of water to drink. Do not induce vomiting. Do not give activated charcoal. Do not give chemical antidote. Immediately consult a doctor/medical service. Call Poison Information Centre ( <a href="http://www.big.be/antigif.htm">www.big.be/antigif.htm</a> ). Ingestion of large quantities: immediately to hospital. Take the container/vomit to the doctor/hospital.

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

Symptoms/injuries after inhalation	: AFTER INHALATION OF DUST: Coughing. Irritation of the respiratory tract. Irritation of the nasal mucous membranes. EXPOSURE TO HIGH CONCENTRATIONS: Corrosion of the upper respiratory tract. Risk of lung oedema. Risk of pneumonia. AFTER INHALATION OF FUME: Metal fume fever. Feeling of weakness. Body temperature rise. Headache. Nausea. Vomiting. Metal taste. Muscular pain. Rapid respiration. Respiratory difficulties. Possible oedema of the upper respiratory tract. Respiratory collapse.
Symptoms/injuries after skin contact	: Caustic burns/corrosion of the skin.
Symptoms/injuries after eye contact	: Corrosion of the eye tissue. Permanent eye damage.
Symptoms/injuries after ingestion	: Burns to the gastric/intestinal mucosa. Possible esophageal perforation. Nausea. Vomiting. Diarrhoea. FOLLOWING SYMPTOMS MAY APPEAR LATER: Blood in stool. Low arterial pressure. Shock.
Chronic symptoms	: ON CONTINUOUS/REPEATED EXPOSURE/CONTACT: Red skin. Skin rash/inflammation. Affection of the nasal septum. Gastrointestinal complaints. Loss of weight.

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

No additional information available

## SECTION 5: Fire-fighting measures

### 5.1. Extinguishing media

Suitable extinguishing media	: Adapt extinguishing media to the environment.
Unsuitable extinguishing media	: No unsuitable extinguishing media known.

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

Fire hazard	: DIRECT FIRE HAZARD. Non combustible.
Explosion hazard	: DIRECT EXPLOSION HAZARD. No data available on direct explosion hazard. INDIRECT EXPLOSION HAZARD. No data available on indirect explosion hazard.

### 5.3. Advice for firefighters

Precautionary measures fire	: Exposure to fire/heat: keep upwind. Exposure to fire/heat: consider evacuation. Exposure to fire/heat: have neighbourhood close doors and windows.
Firefighting instructions	: Dilute toxic gases with water spray. Take account of toxic fire-fighting water. Use water moderately and if possible collect or contain it.
Protection during firefighting	: Heat/fire exposure: compressed air/oxygen apparatus.

## SECTION 6: Accidental release measures

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

#### 6.1.1. For non-emergency personnel

Protective equipment	: Gloves. Face-shield. Corrosion-proof suit. Dust cloud production: compressed air/oxygen apparatus. See "Material-Handling" to select protective clothing.
Emergency procedures	: Mark the danger area. Prevent dust cloud formation. No naked flames. Wash contaminated clothes.
Measures in case of dust release	: In case of dust production: keep upwind. Dust production: have neighbourhood close doors and windows.

#### 6.1.2. For emergency responders

No additional information available

### 6.2. Environmental precautions

Prevent soil and water pollution. Prevent spreading in sewers.

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

For containment	: Contain released substance, pump into suitable containers. Consult "Material-handling" to select material of containers. Plug the leak, cut off the supply. Dam up the solid spill. Knock down/dilute dust cloud with water spray. Take account of toxic/corrosive precipitation water.
Methods for cleaning up	: Prevent dispersion by covering with dry sand/earth. Scoop solid spill into closing containers. See "Material-handling" for suitable container materials. Carefully collect the spill/leftovers. Clean contaminated surfaces with an excess of water. Take collected spill to manufacturer/competent authority. Wash clothing and equipment after handling.

### 6.4. Reference to other sections

No additional information available

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### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Precautions for safe handling : Comply with the legal requirements. Remove contaminated clothing immediately. Clean contaminated clothing. Thoroughly clean/dry the installation before use. Do not discharge the waste into the drain. Avoid raising dust. Keep away from naked flames/heat. Observe strict hygiene. Keep container tightly closed. Measure the concentration in the air regularly. Carry operations in the open/under local exhaust/ventilation or with respiratory protection.

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

Storage temperature : 2-40  
Heat and ignition sources : KEEP SUBSTANCE AWAY FROM: heat sources.  
Information on mixed storage : KEEP SUBSTANCE AWAY FROM: oxidizing agents. (strong) acids. (strong) bases. metals. water/moisture.  
Storage area : Store in a dry area. Keep container in a well-ventilated place. May be stored under argon. Store at ambient temperature. Meet the legal requirements.  
Special rules on packaging : SPECIAL REQUIREMENTS: hermetical. watertight. dry. clean. correctly labelled. meet the legal requirements. Secure fragile packagings in solid containers.  
Packaging materials : SUITABLE MATERIAL: synthetic material. polyethylene. plastics. glass. stoneware/porcelain. cardboard. MATERIAL TO AVOID: steel. aluminium.

#### 7.3. Specific end use(s)

No additional information available

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

Zinc Chloride (7646-85-7)		
Belgium	Local name	Zinc (chlorure de) (fumées) # Zinkchloride (rook)
Belgium	Limit value (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup>
Belgium	Short time value (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
Croatia	Local name	Cinkov klorid, dim
Croatia	GVI (granična vrijednost izloženosti) (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup>
Croatia	KGVI (kratkotrajna granična vrijednost izloženosti) (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
Croatia	Naznake (HR)	C (nagrizajuće); N (opasno za okoliš)
Czech Republic	Local name	Chlorid zine natý
Czech Republic	Expoziční limity (PEL) (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup>
Czech Republic	Expoziční limity (NPK-P) (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
Denmark	Local name	Zinkchlorid og zinkchloridrøg
Denmark	Grænseværdie (langvarig) (mg/m <sup>3</sup> )	0.5 mg/m <sup>3</sup> beregnet som Zn
Estonia	Local name	Tsinkkloriid, peentolm
Estonia	OEL TWA (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup>
Finland	Local name	Sinkkikloridi, huurut
Finland	HTP-arvo (8h) (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup>
France	Local name	Chlorure de zinc
France	VME (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup> (fumées)
France	Note (FR)	Valeurs recommandées/admises
Greece	OEL TWA (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup>
Greece	OEL STEL (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
Ireland	Local name	Zinc chloride, fume
Ireland	OEL (8 hours ref) (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup>
Ireland	OEL (15 min ref) (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
Lithuania	Local name	Cinko chloridas
Lithuania	IPRV (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup> (alveolinė frakcija)
Lithuania	Remark (LT)	O (medžiaga į organizmą gali prasiskverbti pro nepažeistą odą); Žiūrėti 1 priedo 3 punktą.

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Zinc Chloride (7646-85-7)		
Poland	Local name	Dichlorek cynku (chlorek cynku) dymy
Poland	NDS (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup>
Poland	NDSch (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
Portugal	Local name	Cloreto de zinco, fumos
Portugal	OEL TWA (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup>
Portugal	OEL STEL (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
Spain	Local name	Cloruro de cinc
Spain	VLA-ED (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup> humos
Spain	VLA-EC (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup> humos
Sweden	Local name	Zinkklorid
Sweden	nivågränsvärde (NVG) (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup> respirabelt damm
Sweden	Anmärkning (SE)	2 (Med respirabelt damm menas den dammfraction som definieras i svensk standard SS-EN 481, Arbetsplatsluft – Partikelstorleksfraktioner för mätning av luftburna partiklar, Utgåva 1, 1993, punkt 2.11 och som har en provtagningskaraktäristik enligt punkt 5.3)
United Kingdom	Local name	Zinc chloride
United Kingdom	WEL TWA (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup> fume
United Kingdom	WEL STEL (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup> fume
Iceland	Local name	Sinkklórið og sinkklóriðreykur, sem Zn
Iceland	OEL (8 hours ref) (mg/m <sup>3</sup> )	0.5 mg/m <sup>3</sup>
Norway	Local name	Sinkklorid
Norway	Grenseverdier (AN) (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup>
Switzerland	Local name	Zinkchlorid(Rauch)
Switzerland	VME (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup>
Switzerland	Remark (CH)	a(mg/m <sup>3</sup> ) - AW, Metallrauch <sup>KT HU</sup> - OSHA
Australia	Local name	Zinc chloride (fume)
Australia	TWA (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup>
Australia	STEL (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
USA - ACGIH	Local name	Zinc chloride fume
USA - ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup>
USA - ACGIH	ACGIH STEL (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
USA - ACGIH	Remark (ACGIH)	LRT & URT irr
USA - OSHA	Local name	Zinc chloride fume
USA - OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup>

### 8.2. Exposure controls

#### Personal protective equipment:

Gloves. Face shield. In case of dust production: protective goggles. Corrosionproof clothing. In case of dust production: head/neck protection.

#### Materials for protective clothing:

GIVE EXCELLENT RESISTANCE: No data available. GIVE GOOD RESISTANCE: butyl rubber. rubber. plastics. chloroprene rubber. chlorosulfonated polyethylene. neoprene. viton. GIVE LESS RESISTANCE: No data available. GIVE POOR RESISTANCE: No data available

#### Hand protection:

Gloves

#### Eye protection:

Face shield. In case of dust production: protective goggles

#### Skin and body protection:

Corrosion-proof clothing. In case of dust production: head/neck protection

#### Respiratory protection:

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Dust production: dust mask with filter type P3. On heating: gas mask with filter type E. High dust production: self-contained breathing apparatus

Device	Filter type	Condition	Standard
Dust mask	Type P3	Dust protection	
Gas mask	Filter E (yellow)	on heating	
Self-contained breathing apparatus (SCBA)		High dust protection	



## SECTION 9: Physical and chemical properties

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

Physical state	: Solid
Appearance	: Crystalline solid. Crystalline powder. Grains.
Molecular mass	: 136.30 g/mol
Colour	: White.
Odour	: Odourless.
Odour threshold	: No data available
pH	: 4.6 - 6 (10 %)
pH solution	: 10 %
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: 287 °C
Freezing point	: No data available
Boiling point	: 732 °C
Flash point	: Not applicable
Auto-ignition temperature	: No data available
Decomposition temperature	: 360 °C
Flammability (solid, gas)	: No data available
Vapour pressure	: 1.33 hPa (428 °C)
Relative vapour density at 20 °C	: No data available
Relative density	: 2.91 (25 °C)
Density	: 2910 kg/m <sup>3</sup> (25 °C)
Solubility	: Soluble in water. Soluble in ethanol. Soluble in ether. Soluble in acetone. Soluble in glycerol. Soluble in hydrogenchloride. Water: 432 g/100ml (25 °C) Ethanol: 76 g/100ml
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: 100-200,400 °C; 300 mPa.s; 346 °C; 500 mPa.s; 326 °C; 900 mPa.s; 306 °C; 1300 mPa.s; 294 °C
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

### 9.2. Other information

VOC content	: 0 %
Other properties	: Hygroscopic. Substance has acid reaction.

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

On burning: release of toxic and corrosive gases/vapours (hydrogen chloride) and formation of metallic fumes. Reacts violently with (strong) acids/bases.



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### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No additional information available

### 10.4. Conditions to avoid

No additional information available

### 10.5. Incompatible materials

No additional information available

### 10.6. Hazardous decomposition products

No additional information available

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Oral: Harmful if swallowed.

<b>Zinc Chloride (7646-85-7)</b>	
LD50 oral rat	350 mg/kg (Rat; OECD 401: Acute Oral Toxicity; Experimental value; 1100 mg/kg bodyweight; Rat)

Skin corrosion/irritation : Causes severe skin burns and eye damage.  
pH: 4.6 - 6 (10 %)

Serious eye damage/irritation : Serious eye damage, category 1, implicit  
pH: 4.6 - 6 (10 %)

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

STOT-single exposure : Not classified

STOT-repeated exposure : Not classified

Aspiration hazard : Not classified

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general : Dangerous for the environment.

Ecology - air : Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009). Not included in the list of substances which may contribute to the greenhouse effect (IPCC). TA-Luft Klasse 5.2.1.

Ecology - water : Ground water pollutant. For Flanders: maximum concentration in drinking water: 5.000 mg/l (zinc)(M.B. 28/1/2003). Highly toxic to fishes. Very toxic to invertebrates (Daphnia). Very toxic to invertebrates. Highly toxic to algae. May cause eutrophication at very low concentration. Highly toxic to bacteria. Inhibition of activated sludge.

<b>Zinc Chloride (7646-85-7)</b>	
Threshold limit algae 2	0.136 mg/l (IC50; OECD 201: Alga, Growth Inhibition Test; 72 h; Pseudokirchneriella subcapitata; Static system; Fresh water; Experimental value)

### 12.2. Persistence and degradability

<b>Zinc Chloride (7646-85-7)</b>	
Persistence and degradability	Biodegradability: not applicable. Inhibition of nitrification. Biodegradability in soil: not applicable. No (test)data on mobility of the substance available.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable

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### 12.3. Bioaccumulative potential

Zinc Chloride (7646-85-7)	
BCF fish 1	58 - 457 (BCF)
Bioaccumulative potential	Bioaccumulation: not applicable.

### 12.4. Mobility in soil

Zinc Chloride (7646-85-7)	
Ecology - soil	Soil contaminant.

### 12.5. Results of PBT and vPvB assessment

No additional information available

### 12.6. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Product/Packaging disposal recommendations : Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. Recycle/reuse. Specific preliminary treatment. Remove to an authorized dump (Class I). Do not discharge into drains or the environment. Dispose of at authorized waste collection point.

Additional information : LWCA (the Netherlands): KGA category 05. Hazardous waste according to Directive 2008/98/EC.

## SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

### 14.1. UN number

UN-No. (ADR)	: 2331
UN-No. (IMDG)	: 2331
UN-No. (IATA)	: 2331
UN-No. (ADN)	: 2331
UN-No. (RID)	: 2331

### 14.2. UN proper shipping name

Proper Shipping Name (ADR)	: ZINC CHLORIDE, ANHYDROUS
Proper Shipping Name (IMDG)	: ZINC CHLORIDE, ANHYDROUS
Proper Shipping Name (IATA)	: Zinc chloride, anhydrous
Proper Shipping Name (ADN)	: ZINC CHLORIDE, ANHYDROUS
Proper Shipping Name (RID)	: ZINC CHLORIDE, ANHYDROUS
Transport document description (ADR)	: UN 2331 ZINC CHLORIDE, ANHYDROUS, 8, III, (E), ENVIRONMENTALLY HAZARDOUS
Transport document description (IMDG)	: UN 2331 ZINC CHLORIDE, ANHYDROUS, 8, III, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS
Transport document description (IATA)	: UN 2331 Zinc chloride, anhydrous, 8, III, ENVIRONMENTALLY HAZARDOUS
Transport document description (ADN)	: UN 2331 ZINC CHLORIDE, ANHYDROUS, 8, III, ENVIRONMENTALLY HAZARDOUS
Transport document description (RID)	: UN 2331 ZINC CHLORIDE, ANHYDROUS, 8, III, ENVIRONMENTALLY HAZARDOUS

### 14.3. Transport hazard class(es)

#### ADR

Transport hazard class(es) (ADR)	: 8
Danger labels (ADR)	: 8





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### IMDG

Transport hazard class(es) (IMDG) : 8

Danger labels (IMDG) : 8



### IATA

Transport hazard class(es) (IATA) : 8

Hazard labels (IATA) : 8



### ADN

Transport hazard class(es) (ADN) : 8

Danger labels (ADN) : 8



### RID

Transport hazard class(es) (RID) : 8

Danger labels (RID) : 8



### 14.4. Packing group

Packing group (ADR) : III

Packing group (IMDG) : III

Packing group (IATA) : III

Packing group (ADN) : III

Packing group (RID) : III

### 14.5. Environmental hazards

Dangerous for the environment : Yes

Marine pollutant : Yes

Other information : No supplementary information available

### 14.6. Special precautions for user

#### - Overland transport

Classification code (ADR) : C2

Limited quantities (ADR) : 5kg

Excepted quantities (ADR) : E1

Packing instructions (ADR) : P002, IBC08, LP02, R001

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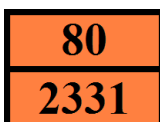
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Mixed packing provisions (ADR) : MP10  
Portable tank and bulk container instructions (ADR) : T1  
Portable tank and bulk container special provisions (ADR) : TP33  
Tank code (ADR) : SGAV  
Vehicle for tank carriage : AT  
Transport category (ADR) : 3  
Special provisions for carriage - Bulk (ADR) : VC1, VC2, AP7  
Hazard identification number (Kemler No.) : 80  
Orange plates :



Tunnel restriction code (ADR) : E  
EAC code : 2X

### - Transport by sea

Transport regulations (IMDG) : Subject  
Limited quantities (IMDG) : 5 kg  
Excepted quantities (IMDG) : E1  
Packing instructions (IMDG) : P002, LP02  
IBC packing instructions (IMDG) : IBC08  
IBC special provisions (IMDG) : B3  
Tank instructions (IMDG) : T1  
Tank special provisions (IMDG) : TP33  
EmS-No. (Fire) : F-A  
EmS-No. (Spillage) : S-B  
Stowage category (IMDG) : A  
Properties and observations (IMDG) : White, deliquescent crystals. Soluble in water. Dust causes burns to skin, eyes and mucous membranes.  
MFAG-No : 154

### - Air transport

Transport regulations (IATA) : Subject to the provisions  
PCA Excepted quantities (IATA) : E1  
PCA Limited quantities (IATA) : Y845  
PCA limited quantity max net quantity (IATA) : 5kg  
PCA packing instructions (IATA) : 860  
PCA max net quantity (IATA) : 25kg  
CAO packing instructions (IATA) : 864  
CAO max net quantity (IATA) : 100kg  
ERG code (IATA) : 8L

### - Inland waterway transport

Classification code (ADN) : C2  
Limited quantities (ADN) : 5 kg  
Excepted quantities (ADN) : E1  
Equipment required (ADN) : PP, EP  
Number of blue cones/lights (ADN) : 0

### - Rail transport

Transport regulations (RID) : Subject  
Classification code (RID) : C2  
Limited quantities (RID) : 5kg  
Excepted quantities (RID) : E1  
Packing instructions (RID) : P002, IBC08, LP02, R001

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Special packing provisions (RID)	: B3
Mixed packing provisions (RID)	: MP10
Portable tank and bulk container instructions (RID)	: T1
Portable tank and bulk container special provisions (RID)	: TP33
Tank codes for RID tanks (RID)	: SGAV
Transport category (RID)	: 3
Special provisions for carriage – Bulk (RID)	: VC1, VC2, AP7
Colis express (express parcels) (RID)	: CE11
Hazard identification number (RID)	: 80

### 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

#### 15.1.1. EU-Regulations

No REACH Annex XVII restrictions

Zinc Chloride is not on the REACH Candidate List

Zinc Chloride is not on the REACH Annex XIV List

VOC content : 0 %

#### 15.1.2. National regulations

##### Germany

VwVwS Annex reference : Water hazard class (WGK) 3, severe hazard to waters (Classification according to VwVwS, Annex 3; ID No. 207)

WGK remark : Classification water polluting based on the R-phrases in compliance with Verwaltungsvorschrift wassergefährdender Stoffe (VwVwS) of 27 July 2005 (Anhang 3)

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

##### Netherlands

SZW-lijst van kankerverwekkende stoffen : The substance is not listed

SZW-lijst van mutagene stoffen : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : The substance is not listed

##### Denmark

Recommendations Danish Regulation : Young people below the age of 18 years are not allowed to use the product

### 15.2. Chemical safety assessment

No additional information available

## SECTION 16: Other information

Abbreviations and acronyms:

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
vPvB	Very Persistent and Very Bioaccumulative
SDS	Safety Data Sheet

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RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
PBT	Persistent Bioaccumulative Toxic
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
EC50	Median effective concentration
IATA	International Air Transport Association

Data sources

: REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Full text of H- and EUH-statements:	
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
Skin Corr. 1B	Skin corrosion/irritation, Category 1B
H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H410	Very toxic to aquatic life with long lasting effects

SDS ISOLAB

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product*