

# Zinc sulphate heptahydrate

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830  
Date of issue: 06/10/2014 Revision date: 06/01/2017

**265284**

Version: 2.0

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

### 1.1. Product identifier

Product form : Substance  
Substance name : Zinc sulphate heptahydrate  
EC index no : 030-006-00-9  
EC no : 231-793-3  
CAS No : 7446-20-0  
Product code : 265284  
Product group : Raw material

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

#### 1.2.1. Relevant identified uses

Main use category : Pharmaceutical industry  
Industrial/Professional use spec : Industrial

#### 1.2.2. Uses advised against

No additional information available

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

#### Supplier

Duchefa Farma BV  
A. Hofmanweg 71  
2031BH Haarlem - Nederland  
T +31(0)23-5319093  
[farma@ducheffa.nl](mailto:farma@ducheffa.nl) - [www.duchefa-farma.com](http://www.duchefa-farma.com)

### 1.4. Emergency telephone number

Emergency number : Supplier contact information:  
+31(0)23-5319093 (M-F 09:00-17:00)  
+31(0)6-30109355 (outside office hours)

Country	Organisation/Company	Address	Emergency number	Comment
United Kingdom	Guy's & St Thomas' Poisons Unit Medical Toxicology Unit, Centre Hospitalier Universitaire de Constantine	Avonley Road SE14 5ER London	0870 243 2241	

## 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  
Serious eye damage/eye irritation, Category 1 H318  
Hazardous to the aquatic environment — Acute Hazard, Category 1 H400  
Hazardous to the aquatic environment — Chronic Hazard, Category 1 H410

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

### 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)



Signal word (CLP)

: Danger

Hazard statements (CLP)

: H302 - Harmful if swallowed  
H318 - Causes serious eye damage  
H410 - Very toxic to aquatic life with long lasting effects

Precautionary statements (CLP)

: P280 - Wear protective gloves, protective clothing, face shield, eye protection  
P273 - Avoid release to the environment  
P301+P312 - IF SWALLOWED: call a POISON CENTER or doctor/physician if you feel unwell  
P305 - IF IN EYES:  
P351 - Rinse cautiously with water for several minutes  
P310 - Immediately call a POISON CENTER or doctor/physician

## 2.3. Other hazards

No additional information available

## SECTION 3: Composition/information on ingredients

### 3.1. Substance

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Zinc sulphate heptahydrate	(CAS No) 7446-20-0 (EC no) 231-793-3 (EC index no) 030-006-00-9	100	Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

Full text of H-statements: see section 16

### 3.2. Mixture

Not applicable

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures general

: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

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First-aid measures after inhalation	: Assure fresh air breathing. Allow the victim to rest.
First-aid measures after skin contact	: Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician. Ensure adequate flushing of eyes by separating eyelids with the fingers.
First-aid measures after ingestion	: Rinse mouth. Induce vomiting. Call a POISON CENTER or doctor/physician if you feel unwell.

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

Symptoms/injuries after inhalation	: Possible oedema of the upper respiratory tract.
Symptoms/injuries after eye contact	: Causes serious eye damage.
Symptoms/injuries after ingestion	: Swallowing a small quantity of this material will result in serious health hazard. May cause gastrointestinal irritation, nausea, vomiting and diarrhoea. May cause irritation to the respiratory tract and to other mucous membranes.

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

No additional information available

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media	: Foam. Dry powder. Carbon dioxide. Water spray. Sand.
Unsuitable extinguishing media	: Do not use a heavy water stream.

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

Hazardous decomposition products in case of fire	: Sulphur oxides.
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### 5.3. Advice for firefighters

Firefighting instructions	: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment.
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection.

## SECTION 6: Accidental release measures

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

General measures	: Do not breathe dust. Avoid raising dust.
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#### 6.1.1. For non-emergency personnel

Emergency procedures	: Evacuate unnecessary personnel.
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#### 6.1.2. For emergency responders

Protective equipment	: Equip cleanup crew with proper protection.
Emergency procedures	: Ventilate area.

### 6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

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

Methods for cleaning up : On land, sweep or shovel into suitable containers. Minimize generation of dust. Store away from other materials.

### 6.4. Reference to other sections

Reference to other sections (8, 13).

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour.

Hygiene measures : Do not eat, drink or smoke when using this product.

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

Storage conditions : Keep container closed when not in use. Store in a dry place. Keep only in the original container in a cool, well-ventilated place.

Incompatible products : Strong bases. Strong acids.

Incompatible materials : Sources of ignition. Direct sunlight.

Storage temperature : 15 - 25 °C

### 7.3. Specific end use(s)

Pharmaceutical industry.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

No additional information available

### 8.2. Exposure controls

#### Appropriate engineering controls:

Good ventilation of the workplace required.

#### Personal protective equipment:

Avoid all unnecessary exposure.

#### Hand protection:

Type	Material	Permeation	Thickness (mm)	Standard
Gloves	Nitrile rubber (NBR)	6 (> 480 minutes)	0,11	EN 374

#### Eye protection:

Chemical goggles or safety glasses

#### Skin and body protection:

Protective clothing (with elasticated cuffs and closed neck). The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace

#### Respiratory protection:

Approved dust respirator

**Other information:**

Do not eat, drink or smoke during use. Wash hands before break and at end of works.

## SECTION 9: Physical and chemical properties

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

Physical state	: Solid
Colour	: white.
Odour	: odourless.
Odour threshold	: No data available
pH	: 4.4 - 5.6
pH solution	: 50 g/l 20 °
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: 100 °C
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Non flammable
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 1.957 g/cm <sup>3</sup>
Solubility	: Water: 965 g/l
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

### 9.2. Other information

Other properties : Bulk density: 1100 kg/m<sup>3</sup>.

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No additional information available

### 10.2. Chemical stability

Not established.

### 10.3. Possibility of hazardous reactions

Not established.

### 10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

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### 10.5. Incompatible materials

Strong acids. Strong bases.

### 10.6. Hazardous decomposition products

Sulphur oxides. Metallic oxides.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Oral: Harmful if swallowed.

Zinc sulphate heptahydrate (7446-20-0)	
LD50 oral rat	2150 kilogram
Oral, Mouse	LD50 = 200 mg/kg; LD50 = 1260 mg/kg.

Skin corrosion/irritation	: Not classified pH: 4.4 - 5.6
Additional information	: Based on available data, the classification criteria are not met
Serious eye damage/irritation	: Causes serious eye damage. pH: 4.4 - 5.6
Respiratory or skin sensitisation	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Germ cell mutagenicity	: Not classified Based on available data, the classification criteria are not met
Carcinogenicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Reproductive toxicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Specific target organ toxicity (single exposure)	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Specific target organ toxicity (repeated exposure)	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Aspiration hazard	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Potential adverse human health effects and symptoms	: Harmful if swallowed.

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - water : Very toxic to aquatic life with long lasting effects.

Zinc sulphate heptahydrate (7446-20-0)	
LC50 fish 1	1.9 mg/l 96 h

### 12.2. Persistence and degradability

Zinc sulphate heptahydrate (7446-20-0)	
Persistence and degradability	May cause long-term adverse effects in the environment.

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### 12.3. Bioaccumulative potential

Zinc sulphate heptahydrate (7446-20-0)	
Bioaccumulative potential	Not established.

### 12.4. Mobility in soil

No additional information available

### 12.5. Results of PBT and vPvB assessment

No additional information available

### 12.6. Other adverse effects

Additional information : Avoid release to the environment

## SECTION 13: Disposal considerations



### 13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.  
Dispose of contents/container to ..

Ecology - waste materials : Avoid release to the environment.

## SECTION 14: Transport information

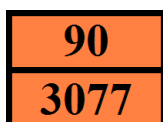
In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IATA
<b>14.1. UN number</b>	
3077	3077
<b>14.2. UN proper shipping name</b>	
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.	Not applicable
<b>14.3. Transport hazard class(es)</b>	
9	9
	
<b>14.4. Packing group</b>	
III	Not applicable
<b>14.5. Environmental hazards</b>	
Dangerous for the environment : Yes	Dangerous for the environment : Yes
No supplementary information available	

### 14.6. Special precautions for user

#### - Overland transport

Classification code (ADR) : M7  
Special provisions (ADR) : 274, 335, 601  
Limited quantities (ADR) : 5kg  
Excepted quantities (ADR) : E1  
Vehicle for tank carriage : AT  
Transport category (ADR) : 3  
Hazard identification number (Kemler No.) : 90  
Orange plates :



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Tunnel restriction code (ADR) : E

EAC code : 2Z

### - Air transport

No data available

### 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 sulphate heptahydrate is not on the REACH Candidate List

Zinc sulphate heptahydrate is not on the REACH Annex XIV List

#### 15.1.2. National regulations

No additional information available

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

## SECTION 16: Other information

Indication of changes:

1.4	Emergency telephone	Modified	Added additional information
2	R-phrases	Removed	Obsolete
8.2	Hand protection	Modified	Specified material, thickness, et cetera of gloves
8.2	Skin and body protection	Modified	Added sentence on choosing type of clothing according to concentration levels

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
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
H302	Harmful if swallowed
H318	Causes serious eye damage
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects

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*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*