

Safety Data Sheet

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According to Regulation (EC) No 1907/2006 and (EU) No. 453/2010

Issue date : February 15, 2011

Revision # 4, date : March 20, 2020

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

1.1 Product identifier :

Trade name:	Zinc Sulphate 7-hydrate
Chemical name:	Zinc Sulphate 7-hydrate
Identification number:	CAS No: 7446-20-0
Registration number:	01-2119474684-27-0026

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

Identified uses:	Pharma active ingredients, food additive, cosmetic additive
Unrecommended uses:	---

1.3 Details of the supplier of the safety data sheet :

Macco Organiques, s. r.o.

Zahradní 46c, 792 01 Bruntál, Czech Republic

IČ : 26819210 , phone: +420 – 555 – 530 334

SDS provider's contact: Jaroslav Zavadil , phone: +420 – 555 – 530 340, jaroslav.zavadil@macco.cz

1.4 Emergency telephone number:

The first aid details may be consulted with toxicological information centre (TIS): Job-related illness clinic, Na Bojišti 1, 128 08 Praha 2, tel. +420-2 24 91 92 93 or +420-2 24 91 54 02. Permanent poisoning informations.

2: Hazard identification

The substance is classified as dangerous according to Directive 1272/2008/ES




2.1 Classification of the substance or mixture:

Acc. to Directive 1272/2008/ES

Eye Dam I. ;	H318 – Causes serious eye damage
Aquatic Acute I. ;	H400 – Very toxic to aquatic life
Aquatic Chronic I. ;	H410 – Very toxic to aquatic life with long lasting effect
Acute Tox. 4, ;	H302 – Harmful if swallowed

The information shown on the label shall be given under heading 15.

2.2 Label elements :

Hazard pictogram	  	Signal word	Danger
Hazard statements	GHS 05 GHS 07 GHS 09		
Precautionary statements	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		
Additional information on label	P280, P273, P305+P351+P338, P310, P301+P312, P501 Full version of P sentences is stated in section 15.		
	Labeling according to Regulation (EC) No 1272/2008 The substance is classified and labeled according to the CLP regulation.		

2.3 Other hazards :

Substance is NOT classified as PBT or vPvB.

3: Composition / information on ingredients

3.1 Substance

3.1.1 Constituent

Chemical identity	Index No.	CAS	EINECS	concentration	classification list number
Zinc Sulphate 7-hydrate	none	7446-20-0	231-793-3	99 – 107 %	---

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3.1.2 Impurities, stabilizers,

<i>Chemical identity</i>	<i>Index No.</i>	<i>CAS</i>	<i>EINECS</i>	<i>concentration</i>	<i>classification list number</i>
none	---	---	---	---	---
3.2 Mixtures :	irrelevant				

4: First aid measures

Symptoms of poisoning may even occur after several hours ; therefore medical observation for at least 48 hours after the accident. Immediately remove any clothing soiled by the product.

4.1 Description of first aid measures :

If inhaled:

Supply fresh air, consult doctor in case of complaints

In the event of skin contact:

Generally the product does not irritate the skin. Wash with water and soap and rinse thoroughly.

In the event of eye contact:

Rinse opened eye for several minutes under running water. Then consult a doctor.

If swallowed:

Call for a doctor immediately

4.2 Most important symptoms and effects, both acute and delayed: not applicable

4.3 Indication of any immediate medical attention and special treatment needed : not applicable

5: Fire fighting measures

5.1 Extinguishing media:

Suitable extinguishing media:

CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam

5.2 Specific hazards arising from the substance or mixture:: Sulphur dioxide (SO₂)

5.3 Advice for firefighters:

No special measures required

6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Wear protective clothing. Avoid formation of dust.

6.2 Environmental precautions:

Inform respective authorities in case of seepage into water course or sewage system. Do not allow to enter sewers / surface or ground water..

6.3 Methods and material for containment and cleaning up:

Dispose contaminated material as waste according to item 13

6.4 References to other sections:

See section 7 for information on safe handling

See section 8 for information on personal protection equipment

See section 13 for disposal information

7: Handling and storage

7.1 Precautions for safe handling:

Precautions for safe handling : No special precautions are necessary if used correctly. Thorough dedusting.

Information about fire – and explosion protection : No special measures required

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7.2 Conditions for safe storage, including any incompatibilities:

Requirements to be met by storerooms and receptacles : No special requirements

Information about storage in one common storage facility : Not required

Further information about storage conditions : Store in cool , dry conditions in well sealed receptacles.
Keep container tightly sealed.

7.3 Specific end uses: not applicable

8: Exposure controls / personal protection

8.1 Control parameters

8.1.1 Exposure limits

- not specified

8.1.2 Biological limit values:

- not specified

8.1.3 DNEL and PNEC values:

- not specified

8.2 Exposure control

8.2.1 Occupational exposure control:

Operate in a well-ventilated area, avoid inhalation of dusts or mists (for liquids). Avoid contact with the eyes. Shower or take a bath at the end of work. Wash hand before breaks and at the end of work. Ensure shower and area for eyes rinsing. Immediately remove all soiled and contaminated clothing. Keep away from foodstuffs, beverages and feed. The mentioned personal safety instruments should be in compliance with EN standards.

Personal protective equipment:

Respiratory protection:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

Hand protection:



The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/substance/ the preparation/ the chemical mixture. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

Material of gloves: The selection of the suitable gloves does not only depend on the material but also on further marks of quality and varies from manufacturer to manufacturers

Penetration time of glove material: The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye / face protection:



Tightly sealed goggles

Skin and body protection:

Protective work clothing, Apron

8.2.2 Environmental exposure controls:

Prevent from escape to environment.

9: Physical and chemical properties

9.1 Information on basic physical and chemical properties:

Form:: crystalline

Colour: colourless

Odour (fragrance): odourless

9.2 Other information:

pH (50 g/l at 20 °C): 4-6

Melting point: undetermined

Boiling point: undetermined

Flash point: Not applicable

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Flamability (solid, gas) :	The substance is non-flammable
Explosion limits	lower: upper:
	Not determined
Density at 20 °C:	1,97 g/cm ³
Water solubility/miscibility with water (at 20 °C) :	960 g /l
Solubility in solvents:	Not available
Partition coefficient n-octanol/water:	Not available
Self-ignition temperature:	Not applicable
Decomposition temperature:	Not applicable
Viscosity:	Not applicable
Explosive properties:	The substance is non-explosive
Oxidizing properties:	The substance is non-oxidizing
Fat solubility:	Not available
Conductivity:	Not available
Gas group:	Not applicable

10: Stability and reactivity

10.1 Reactivity:

Data not available

10.2 Chemical stability:

Stable under recommended storage and handling conditions

10.3 Possibility of hazardous reactions:

No dangerous reaction known.

10.4 Conditions to avoid:

No decomposition if used according to specifications. To avoid thermal decomposition do not overheat.

10.5 Incompatible materials :

No dangerous reactions known.

10.6 Hazardous decomposition products:

Sulphur oxides (SO_x)

11: Toxicological information

11.1 Information on toxicological effects:

Acute toxicity:

- LD₅₀ oral, rat (mg.kg⁻¹): 2150 mg/kg (rat)

- LD₅₀ dermal, rabbit (mg.kg⁻¹):

- LC₅₀ inhalation, rat, for aerosols or particles (mg.l⁻¹): Not specified

Skin irritation: No irritation

Eye irritation: Strong irritant with the danger of severe eye injury

Sensitisation: No sensitizing effects known

Carcinogenicity: Not carcinogenic substance

Mutagenicity: Not mutagenic substance

Toxicity for reproduction: Not toxic substance for reproduction

Toxicity for specific target body – single exposition Substance does not have toxic effects within single exposition

Toxicity for specific target body – repeated exposition: Substance does not have toxic effects within repeated exposition

Irritation if inhaled: Substance does not have irritable effects

Other information: none

12: Ecological information

12.1 Toxicity Very toxic for fish

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12.2 Persistence and degradability:	Not specified (not relevant for inorganic substances)
12.3 Bioaccumulative potential:	Not specified
12.4 Mobility in soil:	Not specified
12.5 Results of PBT assessment:	Substance is not classified as PBT or vPvB.
12.6 Other adverse effects: Water hazard class 3 (German regulation) : Extremely hazardous for water . Do not allow product to reach ground water, water course or sewage system, even in small quantities. Danger to drinking water if even extremely small quantities leak into the ground. Also poisonous for fish and plankton in water bodies. Very toxic for aquatic organisms.	

13: Disposal considerations

13.1 Waste treatment methods:

If recycling or reuse is not practical then the product must be disposed of by authorized personnel in accordance with local, state or national regulations. Never dispose by flushing into the drainage! Waste former is responsible for its sorting and disposal.

Special safety precaution for recommended waste treatment:

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

Packaging:







If recycling or reuse is not practical then packaging must be disposed of by authorized personnel in accordance with local, state or national regulations.

Legal waste regulations:

Directive 2008/98/ES

National or regional provisions may be in force !

14: Transport information

14.1 ADR/RID (Land Transport) : UN number : Packaging group : Special marking : UN proper shipping name :	 	9 miscellaneous dangerous substances and articles 3077 III Symbol (fish and tree) 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Zinc Sulphate heptahydrate)
14.2 IMDG (Marine Transport) : UN number: Packaging group EMS number Marine pollutant: Proper shipping name:	 	9 3077 III F-A,S-F Symbol (fish and tree) ENVIROMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Zinc Sulphate heptahydrate)
14.3 ICAO/IATA (Air Transport) : UN/ID number: Packaging group Special marking : Proper shipping name:	 	9 3077 III Symbol (fish and tree) ENVIROMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Zinc Sulphate heptahydrate)

UN "Model Regulation ":

UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., 9, III

Special precautions for user :

Warning : Micellaneous dangerous substances and articles.

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15: Regulatory Information

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



Danger

H 318	Causes serious eye damage
H 302	Harmful if swallowed
H 400	Very toxic to aquatic life
H 410	Very toxic to aquatic life with long lasting effects
P 273	Avoid release to the environment
P 280	Wear protective gloves/protective clothing/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.
P301 + P312	IF SWALLOWED : call a POISON CENTER or doctor/physician if you feel unwell.
P310	Immediately call a POISON CENTER or doctor/physician.
P501	Dispose of contents/containers in accordance with local/regional/national/international regulations.

15.2 Chemical Safety Assessment:

Chemical safety Report (CSR) has not been carried out for the substance.

National legislation:

Regulation (EC) No. 1907 / 2006 / ES, REACH

Regulation (EC) No. 1272 / 2008 / ES, CLP

National laws or provisions may be in force !

16: Other information

Changes made in Safety Data Sheet in terms of revision:

Without changes.

Key or explanation for abbreviations:

DNEL	Derived No Effect Level (derived concentration of substance, at which no unfavourable effects occur)
PNEC	Predicted No Effect Concentration (prediction of substance concentration, at which no unfavourable effects occur)

Important literature references and data sources:

SDS of other producers, special literature.

Training instructions:

Before handling this substance, the personnel involved should be instructed by means of this safety data sheet.

Recommended restrictions of use:

Not specified

Other :

The information contained herein were processed and compiled in accordance with the latest state-of-the-art. Although having been compiled in an utmost good faith, they do not deliver or guarantee any of the product properties, thus they cannot constitute an official base for any contract or legal relation. Various factors may affect the properties under certain conditions. It is the user sole responsibility to assess and consider the accuracy and veracity of the above-indicated information in particular application and/or environment.