SAFETY DATA SHEET
ZINC SULPHATE HEPTAHYDRATE
According to Regulation (EU) No 453/2010

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product name: ZINC SULPHATE HEPTAHYDRATE
Product No.: Z07
REACH Registration number: 01-2119474684-27
REACH Registration notes: According to REACH Annex V, paragraph 6; the hydrates of a substance are covered by the registration of the anhydrous material.
CAS-No.: 7446-20-0
EU Index No.: 030-006-00-9
EC No.: 231-793-3

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

Identified uses: Fertilisers. Intermediates. Laboratory chemicals. Chemical Processing Aids. Pharmaceutical substance. Surface active agents. Sealant. Lubricants and lubricant additives. A complete list of uses are provided in the annex to this SDS. Some grades of this substance are available for feed/food use; (E6) Feed additive. Food additive.

Uses advised against: None.

1.3. Details of the supplier of the safety data sheet

Supplier: Norkem Limited,
Norkem House, Bexton Lane,
Knutsford, Cheshire,
WA16 9FB. UK.
T: + 44 (0)1565 755550
F: + 44 (0)1565 755496
datasheet@norkem.com

1.4. Emergency telephone number

T: 01270 502891 (UK Transport emergencies only)

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)
Physical and Chemical Hazards: Not classified.
Human health: Acute Tox. 4 - H302; Eye Dam. 1 - H318
Environment: Aquatic Acute 1 - H400; Aquatic Chronic 1 - H410

Classification (67/548/EEC)
Xn;R22. Xi;R41. N;R50/53.

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

Environment
M-factor = 1

2.2. Label elements

EC No.: 231-793-3
Label in Accordance With (EC) No. 1272/2008

Signal Word: Danger
ZINC SULPHATE HEPTAHYDRATE

Hazard Statements

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

Precautionary Statements

P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection. IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P301+312 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P305+351+338 IF SWALLOWED: Call a POISON CENTER or doctor/physician.
P501 Dispose of contents/container in accordance with regional regulations.

Supplementary Precautionary Statements

P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P310 Immediately call a POISON CENTER or doctor/physician.
P330 Rinse mouth.
P391 Collect spillage.

2.3. Other hazards

This product does not contain any PBT or vPvB substances.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Product name ZINC SULPHATE HEPTAHYDRATE
REACH Registration number 01-2119474684-27
REACH Registration notes According to REACH Annex V, paragraph 6; the hydrates of a substance are covered by the registration of the anhydrous material.
CAS-No. 7446-20-0
EU Index No. 030-006-00-9
EC No. 231-793-3
Composition Comments
Purity >90, <100% w/w

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

Inhalation
Move the exposed person to fresh air at once. Get medical attention. Provide rest, warmth and fresh air. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen.

Ingestion
DO NOT INDUCE VOMITING! NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS! Remove victim immediately from source of exposure. Drink plenty of water. Get medical attention immediately! Provide rest, warmth and fresh air.

Skin contact
Remove affected person from source of contamination. Remove contaminated clothing. Wash the skin immediately with soap and water. Get medical attention promptly if symptoms occur after washing.

Eye contact
Remove victim immediately from source of exposure. Make sure to remove any contact lenses from the eyes before rinsing. Promptly wash eyes with plenty of water while lifting the eye lids. Get medical attention immediately. Continue to rinse.

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

Inhalation
Sore throat. May cause an asthma-like shortness of breath. Coughing.

Ingestion
May cause stomach pain or vomiting. Diarrhoea. Nausea, vomiting.

Skin contact
Slightly Irritating.

Eye contact
May cause blurred vision and serious eye damage. Visual disturbances including blurred vision.

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

No recommendation given, but first aid may still be required in case of accidental exposure, inhalation or ingestion of this chemical. If in doubt, GET MEDICAL ATTENTION PROMPTLY!
ZINC SULPHATE HEPTAHYDRATE

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Extinguishing media
Use fire-extinguishing media appropriate for surrounding materials. Water spray, foam, dry powder or carbon dioxide.

Unsuitable extinguishing media
Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products
Sulphurous gases (SOx).

Specific hazards
The product is non-combustible. If heated, corrosive and toxic vapours/gases may be formed. Containers can burst violently when heated, due to excess pressure build-up.

5.3. Advice for firefighters

Special Fire Fighting Procedures
Keep run-off water out of sewers and water sources. Dike for water control.

Protective equipment for fire-fighters
Self contained breathing apparatus and full protective clothing must be worn in case of fire.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Avoid inhalation of dust. Provide adequate ventilation. For personal protection, see section 8.

6.2. Environmental precautions

Do not discharge onto the ground or into water courses. Prevent entry into drains.

6.3. Methods and material for containment and cleaning up

Wear necessary protective equipment. Do not contaminate water sources or sewer. Remove spillage with vacuum cleaner. If not possible, collect spillage with shovel, broom or the like. Ensure that waste and contaminated materials are collected and removed from the work area as soon as possible in a suitably labelled container. For waste disposal, see section 13.

6.4. Reference to other sections

Wear protective clothing as described in Section 8 of this safety data sheet. See section 11 for additional information on health hazards.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Avoid spilling, skin and eye contact. Use mechanical ventilation in case of handling which causes formation of dust. Avoid inhalation of dust.

7.2. Conditions for safe storage, including any incompatibilities

Store in tightly closed original container in a dry, cool and well-ventilated place. Keep in original container.

7.3. Specific end use(s)

The identified uses for this product are detailed in Section 1.2. For further information see attached Exposure Scenario.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

DNEL

<table>
<thead>
<tr>
<th>Type</th>
<th>Route</th>
<th>Long Term</th>
<th>Systemic Effects</th>
<th>Units</th>
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<tbody>
<tr>
<td>Industrial</td>
<td>Inhalation</td>
<td>Long Term</td>
<td>Systemic Effects</td>
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<td>Industrial</td>
<td>Dermal</td>
<td>Long Term</td>
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<td>Long Term</td>
<td>Systemic Effects</td>
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<tr>
<td>Professional</td>
<td>Inhalation</td>
<td>Long Term</td>
<td>Systemic Effects</td>
<td>1.3 mg/m³</td>
</tr>
<tr>
<td>Consumer</td>
<td>Dermal</td>
<td>Long Term</td>
<td>Systemic Effects</td>
<td>8.3 mg/kg/day</td>
</tr>
</tbody>
</table>

The units are expressed in 'mg/µg' of Zinc.

PNEC

<table>
<thead>
<tr>
<th>Type</th>
<th>Value</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshwater</td>
<td>0.0206</td>
<td>mg/l</td>
</tr>
<tr>
<td>Marinewater</td>
<td>0.0061</td>
<td>mg/l</td>
</tr>
<tr>
<td>Sediment (Freshwater)</td>
<td>235.6*</td>
<td>mg/kg</td>
</tr>
<tr>
<td>Sediment (Marinewater)</td>
<td>113*</td>
<td>mg/kg</td>
</tr>
<tr>
<td>Soil</td>
<td>106.8**</td>
<td>mg/kg</td>
</tr>
</tbody>
</table>


ZINC SULPHATE HEPTAHYDRATE

STP 0.0052 mg/l

The units are expressed in 'mg/µg' of: Zinc. These PNECs are added value PNECs- they are to be added to the natural background levels of: Zinc. - in the appropriate compartments (e.g. soils, sediments). (STP) The PNEC for STP was derived by applying an assessment factor to the lowest relevant toxicity value (5.2mg Zn/L). (Dutka et al., 1983) (*) A generic bioavailability factor of 0.5 is applied by default, according to the EU risk assessment (ECB 2008). (**) by default this value was multiplied by '3' to take into account "lab-to-field" differences in toxicity.

8.2. Exposure controls

Engineering measures
Provide adequate general and local exhaust ventilation.

Respiratory equipment
Wear respirator if there is dust formation. Particle filter device (EN 143). Dust filter P2 (for fine dust). Dust filter P3 (for especially fine dust/powder).

Hand protection
Use protective gloves. The glove material must be sufficiently impermeable and resistant to the substance. Check the tightness before wear. Gloves should be well cleaned before being removed, then stored in a well ventilated location. Pay attention to skin care. Textile or leather gloves are completely unsuitable.

The following information is valid for aqueous, saturated solutions of the substance.
Suitable materials for gloves are (breakthrough time>=8 hours):
- NR (Natural rubber (Caoutchouc), Natural latex) - NR (0, 5 mm);
- CR (polychloroprenes, Chloroprene rubber) - CR (0, 5 mm);
- NBR (Nitrile rubber) - NBR (0, 35 mm);
- Butyl rubber - Butyl (0, 5 mm);
- FKM (fluororubber) - FKM (0, 4 mm);
- PVC (Polyvinyl chloride) - PVC (0, 5 mm);

The times listed are suggested by measurements taken at 22 degree C and constant contact. Temperatures raised by warmed substances, body heat, etc. and a weakening of the effective layer thickness caused by expansion can lead to a significantly shorter breakthrough time. In case of doubt contact the gloves' manufacturer. A 1.5-times increase / decrease in the layer thickness doubles / halves the breakthrough time. This data only applies to the pure substance. Transferred to mixtures of substances, these figures should only be taken as an aid to orientation.

Eye protection
Wear approved safety goggles. Wear tight-fitting goggles or face shield.

Other Protection
Provide eyewash, quick drench.

Hygiene measures
DO NOT SMOKE IN WORK AREA! Wash hands at the end of each work shift and before eating, smoking and using the toilet. Promptly remove any clothing that becomes contaminated. Use appropriate skin cream to prevent drying of skin. When using do not eat, drink or smoke.

Skin protection
Wear appropriate clothing to prevent reasonably probable skin contact. Chemical resistant safety shoes. Protective clothing: DIN EN 13034

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Powder, dust</td>
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<tr>
<td>Colour</td>
<td>White</td>
</tr>
<tr>
<td>Odour</td>
<td>Odourless</td>
</tr>
<tr>
<td>Solubility</td>
<td>Soluble in water</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>Not relevant</td>
</tr>
<tr>
<td>Melting point (°C)</td>
<td>56°C / 196°C</td>
</tr>
<tr>
<td>Nitrogen / Air</td>
<td></td>
</tr>
<tr>
<td>Relative density</td>
<td>1.98 g/cm3 20°C</td>
</tr>
<tr>
<td>Vapour density (air=1)</td>
<td>Not relevant</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>Not relevant</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not relevant</td>
</tr>
<tr>
<td>pH-Value, Conc. Solution</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not relevant</td>
</tr>
<tr>
<td>Solubility Value (g/100g H2O@20°C)</td>
<td>20.8</td>
</tr>
<tr>
<td>Decomposition temperature (°C)</td>
<td>196°C / 200°C</td>
</tr>
</tbody>
</table>
ZINC SULPHATE HEPTAHYDRATE

Flash point
Not relevant

Auto Ignition Temperature (°C)
Not relevant

Flammability Limit - Lower(%)
Not applicable.

Flammability Limit - Upper(%)
Not applicable.

Partition Coefficient
(N-Octanol/Water)
Not Applicable - Inorganic chemical.

Explosive properties
Not classified.

Oxidising properties
Does not meet the criteria for oxidising.

9.2. Other information

Particle Size (Micron) D50 - 457μm. D80 - 706μm
Mol. Weight 161.4716 (H2O4S.Zn)

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity
There are no known reactivity hazards associated with this product.

10.2. Chemical stability
Stable under normal temperature conditions and recommended use.

10.3. Possibility of hazardous reactions
Not known.

Hazardous Polymerisation
Will not polymerise.

10.4. Conditions to avoid
Avoid heat.

10.5. Incompatible materials

Materials To Avoid

10.6. Hazardous decomposition products
In case of fire, toxic gases may be formed. Oxides of: Zinc. Sulphur. Reactions with water yield: Sulphuric acid (H2SO4).

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute toxicity:

Acute Toxicity (Oral LD50)
> 574 mg/kg Rat
Very soluble zinc sulphate (monohydrate, hexahydrate and heptahydrate) has LD50 oral values ranging from 574 to 2, 949 mg/kg bw, 862 to 4, 429 mg/kg bw and 920 to 4, 725 mg/kg bw, respectively for the three forms of zinc sulphate. Tests conducted to standard protocols Litton (Bionetics, 1974, Courtois et al., 1978.)

Acute Toxicity (Dermal LD50)
> 2000 mg/kg Rat
Test method(s): OECD 402. (Van Huygevoort 1999)

Acute Toxicity (Inhalation LC50)
Rat 4 hours
Effects of inhalation exposure to zinc sulphate were limited to pulmonary effects only.
ZINC SULPHATE HEPTAHYDRATE

Skin Corrosion/Irritation:
Dose Rabbit

Primary dermal irritation index (PDI)
0

Erythema/vesicular score
No erythema (0).

Oedema score
No oedema (0).

Not classified. Test method(s): OECD 404. (Van Huygevoort 1999)

Not irritating.

Serious eye damage/irritation:

Irritating. Test method(s): OECD 405. (Van Huygevoort 1999)

Respiratory or skin sensitisation:

Skin sensitisation
Patch Test: Mouse
(Van Huygevoort, 1999 i, Ikarashi et al, 1992)

Not Sensitising.

Germ cell mutagenicity:

Genotoxicity - In Vitro
Gene Mutation:
In vitro genotoxicity studies indicate that zinc compounds do not have genotoxic activity [Zinc CSR(s), 2010]. This conclusion is in line with those achieved by other regulatory reviews of the genotoxicity of zinc compounds (WHO, 2001; EU RAR, 2004, MAK, 2009).

Negative.

Genotoxicity - In Vivo
Chromosome aberration:
In vivo genotoxicity studies indicate that zinc compounds do not have genotoxic activity [Zinc CSR(s), 2010]. This conclusion is in line with those achieved by other regulatory reviews of the genotoxicity of zinc compounds (WHO, 2001; EU RAR, 2004, MAK, 2009).

Negative.

Carcinogenicity:

Carcinogenicity

No experimental or epidemiological evidence exists to justify classification of zinc compounds for carcinogenic activity (based on cross-reading between Zn compounds; no classification for carcinogenicity required) (Chemical Safety report (CSR) zinc oxide. 2010).

Reproductive Toxicity:

Reproductive Toxicity - Fertility

No experimental or epidemiological evidence exists to justify classification of zinc compounds for reproductive or developmental toxicity (based on cross-reading between Zn compounds; no classification for reproductive toxicity required) (Chemical Safety Report (CSR) for zinc compounds. 2010)

Specific target organ toxicity - single exposure:

STOT - Single exposure

No experimental or epidemiological sufficient evidence for specific target organ toxicity (single exposure) (based on cross-reading from ZnO; no classification for target organ toxicity (single exposure: STOT-SE) required) (Heydon and Kagan, 1990; Gordon et al., 1992; Mueller and Seger, 1985 [Cited in Chemical Safety report (CSR) zinc sulphate. 2010]])

Specific target organ toxicity - repeated exposure:

STOT - Repeated exposure

No experimental or epidemiological sufficient evidence for specific target organ toxicity (repeated exposure) (no classification for specific target organ toxicity (repeated exposure: STOT-RE) required) (Lam et al, 1985, 1988; Conner et al. , 1988 [Cited in Chemical Safety report (CSR) for zinc(s). 2010]])

Aspiration hazard:

Viscosity
No data available.
ZINC SULPHATE HEPTAHYDRATE

Health Warnings
INHALATION. Prolonged inhalation of high concentrations may damage respiratory system. SKIN CONTACT. Acts as a defatting agent on skin. May cause cracking of skin, and eczema. Prolonged or repeated exposure may cause severe irritation. EYE CONTACT. May cause severe irritation to eyes. INGESTION. The product causes irritation of mucous membranes and may cause abdominal discomfort if swallowed.

Target Organs
Skin  Eyes  Respiratory system, lungs

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity
Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

12.1. Toxicity
The Acute aquatic toxicity database on zinc contains data on 11 standard species obtained under standard testing conditions at different pH and hardness. The full analysis of these data is given in the CSR.

The reference values for acute aquatic toxicity, based on the lowest observed EC50 values of the corresponding databases at different pH and expressed as Zn++ ion concentration are:

- for pH <7: 0.413 mg Zn++/l (48 hr - Ceriodaphnia dubia test according to US EPA 821-R-02-012 standard test protocol; reference: Hyne et al 2005)
- for pH >7-8.5: 0.136 mg Zn++/l (72 hr - Selenastrum capricornutum (=Pseudokircherniella subcapitata) test according to OECD 201 standard protocol; reference: Van Ginneken, 1994)

After applying the molecular weight correction (transformation/dissolution testing is not relevant since this zinc compound is readily soluble), the specific reference values for acute aquatic toxicity of the different zinc sulphates are:

For zinc monohydrate (a ZnSO4.H2O/Zn molecular weight ratio of 2.74):
- for pH <7: 1.13 mg Zn/l (based on 48 hr Ceriodaphnia dubia test cfr above)
- for pH >7-8.5: 3.73 mg Zn/l (based on 72 hr Selenastrum capricornutum test cfr above)

For zinc hexahydrate (a ZnSO4.6H2O/Zn molecular weight ratio of 4.12):
- for pH <7: 1.70 mg Zn/l (based on 48 hr Ceriodaphnia dubia test cfr above)
- for pH >7-8.5: 0.56 mg Zn/l (based on 72 hr Selenastrum capricornutum test cfr above)

For zinc heptahydrate (a ZnSO4.7H2O/Zn molecular weight ratio of 4.4):
- for pH <7: 1.82 mg Zn/l (based on 48 hr Ceriodaphnia dubia test cfr above)
- for pH >7-8.5: 0.60 mg Zn/l (based on 72 hr Selenastrum capricornutum test cfr above)

M-factor: 1

CHRONIC AQUATIC TOXICITY:

The chronic freshwater aquatic toxicity database on zinc contains high quality chronic NOEC/EC10 values on 23 species (8 taxonomic groups) obtained under a variety of conditions.

The chronic marine-water aquatic toxicity database on zinc contains high quality chronic NOEC/EC10 values on 39 species (9 taxonomic groups) obtained under a variety of conditions.

These data, outlined in the CSR, were compiled in a species sensitivity distribution, from which the PNECs for freshwater and marine-water were derived (expressed as Zn+2ion concentration).

SEDIMENT TOXICITY:

The chronic toxicity of zinc to sediment organisms in the freshwater was assessed based on a database containing high quality chronic NOEC/EC10 values on 7 benthic species obtained under a variety of conditions. These data, outlined in the CSR, were compiled in a species sensitivity distribution, from which the PNEC was derived (expressed as total Zn contained in the sediment).

For marine sediments, a PNEC was derived using the equilibrium partitioning approach.

SOIL TOXICITY:

The chronic toxicity of zinc to soil organisms was assessed based on a database containing high quality chronic NOEC/EC10 values on 18 plant species, 8 invertebrate species and 17 microbial processes, obtained under a variety of conditions. These data, outlined in the CSR, were compiled in a species sensitivity distribution, from which the PNEC was derived (expressed as total Zn contained in the soil).

12.2. Persistence and degradability

Degradability
Zinc is an element, and as such the criterion “persistence” is not relevant for the metal and its inorganic compounds in a way as it is applied to organic substances. An analysis on the removal of zinc from the water column has been presented as a surrogate for persistence. The rapid removal of zinc from the water column is documented in the CSR. So, zinc and zinc compounds do not meet this criterion, neither.
ZINC SULPHATE HEPTAHYDRATE

Biodegradation
Not Applicable - Inorganic chemical.

12.3. Bioaccumulative potential

Bioaccumulative potential
The product is not bioaccumulating. Zinc is a natural, essential element, which is needed for the optimal growth and development of all living organisms, including man. All living organisms have homeostasis mechanisms that actively regulate zinc uptake and absorption/excretion from the body; due to this regulation, zinc and zinc compounds do not bio-accumulate or bio-magnify.

Partition coefficient
Not Applicable - Inorganic chemical.
Inorganic salts.

12.4. Mobility in soil

Mobility:
For zinc (like for other metals) the transport and distribution over the different environmental compartments e.g. the water (dissolved fraction, fraction bound to suspended matter), soil (fraction bound or complexed to the soil particles, fraction in the soil pore water, ...) is described and quantified by the metal partition coefficients between these different fractions. In the CSR, a solids-water partitioning coefficient of 158.5 l/kg (log value 2.2) was applied for zinc in soils (CSR zinc 2010).

12.5. Results of PBT and vPvB assessment

This product does not contain any PBT or vPvB substances.

12.6. Other adverse effects

None known.

SECTION 13: DISPOSAL CONSIDERATIONS

General information
Waste to be treated as controlled waste. Disposal to licensed waste disposal site in accordance with local Waste Disposal Authority.

13.1. Waste treatment methods

Dispose of waste and residues in accordance with local authority requirements. Residues and empty containers should be taken care of as hazardous waste according to local and national provisions. Waste catalogue number and code must be decided by the end user based on the actual use of the product.

SECTION 14: TRANSPORT INFORMATION

14.1. UN number

UN No. (ADR/RID/ADN) 3077
UN No. (IMDG) 3077
UN No. (ICAO) 3077

14.2. UN proper shipping name

Proper Shipping Name UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Zinc sulphate heptahydrate), 9, III, (E)
Proper Shipping Name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.

14.3. Transport hazard class(es)

ADR/RID/ADN Class 9
ADR/RID/ADN Class Class 9: Miscellaneous dangerous substances and articles.
ADR Label No. 9
IMDG Class 9
ICAO Class/Division 9
Transport Labels

14.4. Packing group
ZINC SULPHATE HEPTAHYDRATE

ADR/RID/ADN Packing group III
IMDG Packing group III
ICAO Packing group III

14.5. Environmental hazards

Environmentally Hazardous Substance/Marine Pollutant

14.6. Special precautions for user

EMS F-A, S-F
Emergency Action Code 2Z
Hazard No. (ADR) 90
Tunnel Restriction Code (E)

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable.

SECTION 15: REGULATORY INFORMATION

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

Guidance Notes
Workplace Exposure Limits EH40. Introduction to Local Exhaust Ventilation HS(G)37.
EU Legislation

15.2. Chemical Safety Assessment

A chemical safety assessment has been carried out.

SECTION 16: OTHER INFORMATION

General Information
The following information is provided to conform with article 13 of the EC Directive on Packaging and Packaging Waste 94/62/EC:
• Wherever possible we use returnable packaging and pallets. Details of these are on our Sales Contracts
• For any non-returnable packaging the cost of disposal is at your expense, but we do have a list of reprocessors available
• In most cases, but not all, we are able to supply products in returnable packaging but the additional cost of this will be for the customer’s expense. Please ask for details with your specific requirements
• Any products supplied in returnable packaging is clearly marked to this effect.
Revision Date 22/06/2011
Revision 1
Safety Data Sheet Status For further information see attached Exposure Scenario.

Risk Phrases in Full
R22 Harmful if swallowed.
R41 Risk of serious damage to eyes.
R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Hazard Statements in Full
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.
Disclaimer

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.