



# GOEMAR® MZ 'O'

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date: 02/03/2015

Supersedes: 09/29/2014

Version: 5.0

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

#### 1.1. Product identifier

Product form : Mixture  
Product name : GOEMAR® MZ 'O'  
Other means of identification : EC Fertilizer - Zinc-based solution (zinc sulfate)  
Goëmar MZ "Organic"

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

Use of the substance/mixture : Seaweed-based fertilizer, for foliar spraying.

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

Agrimar Corporation  
15401 Weston Parkway, Suite 150  
Cary, NC 27513 - USA

#### 1.4. Emergency telephone number

Emergency number : Exposure Calls (PROSAR): +1-866-303-6952 or +1-651-603-3432 (international)  
Spill Calls (CHEMTREC) (Contract # CCN1779): +1-800-424-9300 or +1-703-527-3887

### SECTION 2: Hazards identification

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

##### GHS-US classification

Eye Dam. 1 H318

Full text of H-phrases: see section 16

#### 2.2. Label elements

##### GHS-US labelling

Hazard pictograms (GHS-US) :



GHS05

Signal word (GHS-US) : Danger  
Hazard statements (GHS-US) : H318 - Causes serious eye damage  
Precautionary statements (GHS-US) : P280 - Wear protective gloves, eye 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  
P310 - Immediately call a doctor

#### 2.3. Other hazards

No additional information available

#### 2.4. Unknown acute toxicity (GHS-US)

Not applicable

### SECTION 3: Composition/information on ingredients

#### 3.1. Substance

Not applicable

# GOEMAR® MZ 'O'

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### 3.2. Mixture

Name	Product identifier	%	GHS-US classification
Zinc sulphate heptahydrate	(CAS No) 7446-20-0	>= 2.5, < 20	Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

Full text of H-phrases: see section 16

## 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).
- First-aid measures after inhalation : If inhaled and if breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
- First-aid measures after skin contact : Wash skin with mild soap and water. Remove contaminated clothing and shoes.
- 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.
- First-aid measures after ingestion : Do NOT induce vomiting. Rinse mouth. 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 skin contact : May cause moderate irritation.
- Symptoms/injuries after eye contact : Causes serious eye damage.
- Symptoms/injuries after ingestion : Like any product not designed to be ingested, this product may cause stomach distress if ingested in large quantities.

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

All treatments should be based on observed signs and symptoms of distress in the patient.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

- Suitable extinguishing media : Use extinguishing media appropriate for surrounding fire.
- Unsuitable extinguishing media : None known.

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

- Fire hazard : Not flammable.
- Reactivity : No dangerous reactions known.

### 5.3. Advice for firefighters

- Firefighting instructions : Do not allow run-off from fire fighting to enter drains or water courses. Exercise caution when fighting any chemical fire.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. Wear a self contained breathing apparatus. Wear fire/flammable resistant/retardant clothing.

## SECTION 6: Accidental release measures

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

- General measures : Avoid contact with skin and eyes.

#### 6.1.1. For non-emergency personnel

- Protective equipment : Chemical goggles or safety glasses. In case of inadequate ventilation wear respiratory protection.
- Emergency procedures : Evacuate unnecessary personnel.

#### 6.1.2. For emergency responders

- Protective equipment : Chemical goggles or safety glasses. Where excessive vapour, mist, or dust may result, use approved respiratory protection equipment.
- Emergency procedures : Ventilate area.

### 6.2. Environmental precautions

Avoid release to the environment. Do not discharge into drains or the environment. Prevent dispersion.

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

- For containment : Absorb and/or contain spill with inert material, then place in suitable container. Never return spills to original container for re-use.

# GOEMAR® MZ 'O'

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Take up in non-combustible absorbent material and shove into container for disposal.

### 6.4. Reference to other sections

Section 13: disposal information. Section 7: safe handling. Section 8: personal protective equipment.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Avoid contact with skin and eyes.  
Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

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

Storage conditions : Do not store near food, foodstuffs, drugs, or potable water supplies. Keep only in the original container in a cool well ventilated place.  
Incompatible products : None known.  
Incompatible materials : metals.  
Storage area : Store out of frost (-10 °C).

### 7.3. Specific end use(s)

Fertilizer.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Zinc sulphate heptahydrate (7446-20-0)

ACGIH	Not applicable
OSHA	Not applicable

### 8.2. Exposure controls

Appropriate engineering controls : Avoid creating mist or spray. Avoid splashing. Eyewash stations.  
Personal protective equipment : Avoid all unnecessary exposure.  
Hand protection : It is a good industrial hygiene practice to minimize skin contact. Wear suitable gloves. PVC. rubber.  
Eye protection : Chemical goggles or face shield. In case of splashing or aerosol production: protective goggles.  
Skin and body protection : Wear suitable protective clothing. Impervious clothing.  
Respiratory protection : Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. Wear appropriate mask.  
Environmental exposure controls : Prevent contaminated water run-off.

## SECTION 9: Physical and chemical properties

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

Physical state : Liquid  
Colour : Green  
Odour : No data available  
Odour threshold : No data available  
pH : > 2.1 (2.1 - 2.6) (pure product)  
Relative evaporation rate (butyl acetate=1) : No data available  
Melting point : No data available  
Freezing point : No data available  
Boiling point : No data available  
Flash point : Aqueous solution, no flammable component  
Auto-ignition temperature : No data available  
Decomposition temperature : No data available  
Flammability (solid, gas) : No data available  
Vapour pressure : No data available  
Relative vapour density at 20 °C : No data available  
Relative density : No data available  
Relative density of saturated gas/air mixture : 1.265 - 1.28

# GOEMAR® MZ 'O'

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Solubility	: Totally soluble in water in all proportions.
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: Product is not explosive.
Oxidising properties	: No oxidizing properties.
Explosive limits	: No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No dangerous reactions known.

### 10.2. Chemical stability

Stable under normal conditions. Product color changes with time, without effect on its properties.

### 10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

### 10.4. Conditions to avoid

Avoid excessive heat or cold. Do not store product at a temperature above 40 °C or below -10 °C.

### 10.5. Incompatible materials

metals.

### 10.6. Hazardous decomposition products

Thermal decomposition generates : Sulphur oxides.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Not classified

Zinc sulphate heptahydrate (7446-20-0)	
LD50 oral rat	1260 mg/kg
ATE US (oral)	1260.000 mg/kg bodyweight

Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Causes serious eye damage.
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified
Symptoms/injuries after skin contact	: May cause moderate irritation.
Symptoms/injuries after eye contact	: Causes serious eye damage.
Symptoms/injuries after ingestion	: Like any product not designed to be ingested, this product may cause stomach distress if ingested in large quantities.
Likely routes of exposure	: Skin and eyes contact.

## SECTION 12: Ecological information

### 12.1. Toxicity

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

### 12.2. Persistence and degradability

GOEMAR® MZ 'O'	
Persistence and degradability	May cause long-term adverse effects in the environment.

# GOEMAR® MZ 'O'

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### 12.3. Bioaccumulative potential

No additional information available

### 12.4. Mobility in soil

No additional information available

### 12.5. Other adverse effects

Effect on ozone layer : None known

Effect on the global warming : None known

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste treatment methods : Do not dispose in household garbage. Dispose of in authorized waste collection plant.

Sewage disposal recommendations : Do not dispose of waste into sewer.

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

Ecology - waste materials : Dispose of container in a licensed facility.

## SECTION 14: Transport information

### In accordance with 49CFR US DOT (Land)

Non-bulk ( $\leq 119$  gallons) : Not regulated

Bulk ( $>119$  but  $<468$  gallons) : Not regulated

RQ Bulk ( $\geq 468$  gallons) : UN3082 Environmentally hazardous substances, liquid, n.o.s. (zinc sulphate), 9, III  
RQ (zinc sulphate)

Hazard labels (DOT) : 9 - Class 9 (Miscellaneous dangerous materials)



DOT Symbols : G - Identifies PSN requiring a technical name

Packing group (DOT) : III - Minor Danger

Marine Pollutant : Marine Pollutant



### Additional information

Other information : No supplementary information available.

### ADR

Transport document description : UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (zinc sulphate), 9, III, (E)

Packing group (ADR) : III

Class (ADR) : 9 - Miscellaneous dangerous substances and articles

Hazard identification number (Kemler No.) : 90

Classification code (ADR) : M6

Danger labels (ADR) : 9 - Miscellaneous dangerous substances and articles



Orange plates :

Tunnel restriction code (ADR) : E

# GOEMAR® MZ 'O'

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

LQ : 5l  
Excepted quantities (ADR) : E1

### Transport by sea

UN-No. (IMDG) : 3082  
Proper Shipping Name (IMDG) : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (zinc sulphate)  
Class (IMDG) : 9 - Miscellaneous dangerous substances and articles  
Packing group (IMDG) : III - substances presenting low danger  
Marine pollutant : Yes



### Air transport

UN-No.(IATA) : 3082  
Proper Shipping Name (IATA) : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (zinc sulphate)  
Class (IATA) : 9 - Miscellaneous Dangerous Goods  
Packing group (IATA) : III - Minor Danger

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

#### Zinc sulphate heptahydrate (7446-20-0)

Exempt from the United States Toxic Substances Control Act (TSCA) inventory.

### 15.2. International regulations

#### CANADA

#### GOEMAR® MZ 'O'

WHMIS Classification : Class E - Corrosive Material

#### Zinc sulphate heptahydrate (7446-20-0)

Listed on the Canadian DSL (Domestic Substances List) inventory.

### EU-Regulations

#### Zinc sulphate heptahydrate (7446-20-0)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

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

Eye Dam. 1 H318  
Aquatic Chronic 2 H411  
Full text of H-phrases: see section 16

### Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

Xi; R41  
N; R51/53

### 15.2.2. National regulations

#### Zinc sulphate heptahydrate (7446-20-0)

Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)  
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)  
Listed on NZIoC (New Zealand Inventory of Chemicals)  
Listed on Taiwan National Chemical Inventory  
Listed on the AICS (Australian Inventory of Chemical Substances)  
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory  
Not listed on the KECI (Chemical Inventory of Korea).

### 15.3. US State regulations

No additional information available

## SECTION 16: Other information

Indication of changes : GHS classification information. Revised sections: 1 - 16.  
Revision date : 02/03/2015

# GOEMAR® MZ 'O'

## Safety Data Sheet

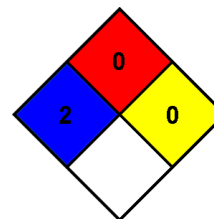
according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

- Data sources : European Chemicals Agency (ECHA) C&L Inventory database. Accessed at <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>.  
National Fire Protection Association; Fire Protection Guide to Hazardous Materials; 10th edition.  
Krister Forsberg and S.Z. Mansdorf, "Quick Selection Guide to Chemical Protective Clothing", Fifth Edition.  
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.
- Abbreviations and acronyms : ACGIH (American Conference of Government Industrial Hygienists).  
ATE: Acute Toxicity Estimate.  
CAS (Chemical Abstracts Service) number.  
CLP: Classification, Labelling, Packaging.  
GHS: Globally Harmonized System (of Classification and Labeling of Chemicals).  
OSHA: Occupational Safety & Health Administration.  
TSCA: Toxic Substances Control Act.

### Full text of H-phrases:

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

- NFPA health hazard : 2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.
- NFPA fire hazard : 0 - Materials that will not burn.
- NFPA reactivity : 0 - Normally stable, even under fire exposure conditions, and not reactive with water.



SDS US (GHS HazCom 2012)

**SDS Prepared by:** The Redstone Group, LLC.  
6397 Emerald Pkwy, Suite 200  
Dublin, Ohio, USA 43016  
614.923.7472  
[www.redstonegrp.com](http://www.redstonegrp.com)

*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*