

SAFETY DATA SHEETS

According to the UN GHS revision 8

Version: 1.0

Creation Date: July 15, 2019

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YATAI CHEMICAL CORP

1. SECTION 1: Identification

1.1. GHS Product identifier

Product name Magnesium sulphate

1.2. Other means of identification

Other names Salts;MgSO4;DBO2

1.3. Recommended use of the chemical and restrictions on use

Identified uses Processing Aids and Additives

Uses advised against no data available

1.4. Supplier's details

Company Yatai Chemical Corp

Address Room 20A5, No.585, Longhua West Road,
Shanghai, China

Telephone 0086-21-64563115

1.5. Emergency phone number

Emergency phone number 0086-21-64563115

Service hours Monday to Friday, 9am-5pm (Standard time zone:
UTC/GMT +8 hours).

2. SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

Not classified.

2.2. GHS label elements, including precautionary statements

Pictogram(s) No symbol.

Signal word No signal word

Hazard statement(s) none

Precautionary statement(s)

Prevention none

Response none

Storage none

Disposal none

2.3. Other hazards which do not result in classification

no data available

3. SECTION 3: Composition/information on ingredients

3.1. Substances

Chemical name	Common names and synonyms	CAS number	EC number	Concentration
Magnesium sulphate	Magnesium sulphate	7487-88-9	231-298-2	100%

4. SECTION 4: First-aid measures

4.1. Description of necessary first-aid measures

Medical attention is required. Consult a doctor. Show this safety data sheet (SDS) to the doctor in attendance.

If inhaled

Fresh air, rest.

Following skin contact

Rinse skin with plenty of water or shower.

Following eye contact

Rinse with plenty of water (remove contact lenses if easily possible).

Following ingestion

Rinse mouth. Give one or two glasses of water to drink.

4.2. Most important symptoms/effects, acute and delayed

no data available

4.3. Indication of immediate medical attention and special treatment needed, if necessary

Absorption, Distribution and Excretion

Magnesium is excreted solely by the kidney at a rate proportional to the serum concentration and glomerular filtration.

5. SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media

In case of fire in the surroundings, use appropriate extinguishing media.

5.2. Specific hazards arising from the chemical

Not combustible. Gives off irritating or toxic fumes (or gases) in a fire.

5.3. Special protective actions for fire-fighters

In case of fire in the surroundings, use appropriate extinguishing media.

6. SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal protection: particulate filter respirator adapted to the airborne concentration of the substance. Sweep spilled substance into covered containers. If appropriate, moisten first to prevent dusting. Store and dispose of according to local regulations. Wash away remainder with plenty of water.

6.2. Environmental precautions

Personal protection: particulate filter respirator adapted to the airborne concentration of the substance. Sweep spilled substance into covered containers. If appropriate, moisten first to prevent dusting. Store and dispose of according to local regulations. Wash away remainder with plenty of water.

6.3. Methods and materials for containment and cleaning up

Collect and arrange disposal. Keep the chemical in suitable and closed containers for disposal. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment. Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.

7. SECTION 7: Handling and storage

7.1. Precautions for safe handling

Handling in a well ventilated place. Wear suitable protective clothing. Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Use non-sparking tools. Prevent fire caused by electrostatic discharge steam.

7.2. Conditions for safe storage, including any incompatibilities

Dry.KEEP WELL CLOSED. HEPTAHYDRATE

8. SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure limit values

no data available

Biological limit values

no data available

8.2. Appropriate engineering controls

Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Set up emergency exits and the risk-elimination area.

8.3. Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection

Wear safety spectacles.

Skin protection

Wear fire/flame resistant and impervious clothing. Handle with gloves. Gloves must be inspected prior to use. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Respiratory protection

Avoid inhalation of dust.

Thermal hazards

no data available

9. SECTION 9: Physical and chemical properties and safety characteristics

Physical state	Solid.
Colour	Whitish.
Odour	Odorless
Melting point/freezing point	-103°C(lit.)
Boiling point or initial boiling point and boiling range	55°C(lit.)
Flammability	Not combustible. Gives off irritating or toxic fumes (or gases) in a fire.
Lower and upper explosion limit/flammability limit	no data available
Flash point	94°C(lit.)
Auto-ignition temperature	no data available
Decomposition temperature	1124°C
pH	Neutral to litmus
Kinematic viscosity	no data available
Solubility	In water: Ca. 73.8 g/L. Temperature:100 °C. Remarks:PH not reported.
Partition coefficient n-octanol/water	no data available
Vapour pressure	<0.1 mm Hg (20 °C)
Density and/or relative density	1.67. Temperature:20 °C.
Relative vapour density	<0.01 (vs air)
Particle characteristics	no data available

10. SECTION 10: Stability and reactivity

10.1. Reactivity

Decomposes on heating. This produces toxic and corrosive fumes including sulfur oxides.

10.2. Chemical stability

Following date of mfr, mgso4 injections have expiration date of 18 mo to 5 yr, depending on mfr & packaging heptahydrate

10.3. Possibility of hazardous reactions

Decomposes on heating. This produces toxic and corrosive fumes including sulfur oxides.

10.4. Conditions to avoid

no data available

10.5. Incompatible materials

Potentially explosive reaction when heated with ethoxyethynyl alcohols (e.g., 1-ethoxy-3-methyl-1-butyn-3-ol).

10.6. Hazardous decomposition products

When heated to decomp ... emits toxic fumes of /sulfur oxides/.

11. SECTION 11: Toxicological information

Acute toxicity

- Oral: no data available
- Inhalation: no data available
- Dermal: LD50 - rat (male/female) - > 2 000 mg/kg bw.

Skin corrosion/irritation

no data available

Serious eye damage/irritation

no data available

Respiratory or skin sensitization

no data available

Germ cell mutagenicity

no data available

Carcinogenicity

no data available

Reproductive toxicity

no data available

STOT-single exposure

The substance is mildly irritating to the eyes and respiratory tract.

STOT-repeated exposure

no data available

Aspiration hazard

A harmful concentration of airborne particles can be reached quickly , especially if powdered.

12. SECTION 12: Ecological information

12.1. Toxicity

- Toxicity to fish: LC50 - Pimephales promelas - 680 mg/L - 96 h.
- Toxicity to daphnia and other aquatic invertebrates: LC50 - Daphnia magna - 720 mg/L - 48 h.
- Toxicity to algae: EC50 - Chlorella vulgaris - 2 700 mg/L - 18 d.
- Toxicity to microorganisms: EC0 - Photobacterium phosphoreum - 27.4 g/L - 30 min.

12.2. Persistence and degradability

no data available

12.3. Bioaccumulative potential

no data available

12.4. Mobility in soil

no data available

12.5. Other adverse effects

no data available

13. SECTION 13: Disposal considerations

13.1. Disposal methods

Product

The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

Contaminated packaging

Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

14. SECTION 14: Transport information

14.1. UN Number

ADR/RID: Not dangerous goods. (For reference only, please check.)

IMDG: Not dangerous goods. (For reference only, please check.)

IATA: Not dangerous goods. (For reference only, please check.)

14.2. UN Proper Shipping Name

ADR/RID: Not dangerous goods. (For reference only, please check.)

IMDG: Not dangerous goods. (For reference only, please check.)

IATA: Not dangerous goods. (For reference only, please check.)

14.3. Transport hazard class(es)

ADR/RID: Not dangerous goods. (For reference only, please check.)

IMDG: Not dangerous goods. (For reference only, please check.)

IATA: Not dangerous goods. (For reference only, please check.)

14.4. Packing group, if applicable

ADR/RID: Not dangerous goods. (For reference only, please check.)

IMDG: Not dangerous goods. (For reference only, please check.)

IATA: Not dangerous goods. (For reference only, please check.)

14.5. Environmental hazards

ADR/RID: No

IMDG: No

IATA: No

14.6. Special precautions for user

no data available

14.7. Transport in bulk according to IMO instruments

no data available

15. SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations specific for the product in question

Chemical name	Common names and synonyms	CAS number	EC number
Magnesium sulphate	Magnesium sulphate	7487-88-9	231-298-2
European Inventory of Existing Commercial Chemical Substances (EINECS)			Listed.
EC Inventory			Listed.
United States Toxic Substances Control Act (TSCA) Inventory			Listed.
China Catalog of Hazardous chemicals 2015			Not Listed.
New Zealand Inventory of Chemicals (NZIoC)			Listed.
Philippines Inventory of Chemicals and Chemical Substances (PICCS)			Listed.
Vietnam National Chemical Inventory			Listed.
Chinese Chemical Inventory of Existing Chemical Substances (China IECSC)			Listed.
Korea Existing Chemicals List (KECL)			Listed.

16. SECTION 16: Other information

Information on revision

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Abbreviations and acronyms

- CAS: Chemical Abstracts Service
- ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
- RID: Regulation concerning the International Carriage of Dangerous Goods by Rail
- IMDG: International Maritime Dangerous Goods
- IATA: International Air Transportation Association
- TWA: Time Weighted Average
- STEL: Short term exposure limit
- LC50: Lethal Concentration 50%
- LD50: Lethal Dose 50%
- EC50: Effective Concentration 50%

References

- IPCS - The International Chemical Safety Cards (ICSC), website: <http://www.ilo.org/dyn/icsc/showcard.home>
- HSDB - Hazardous Substances Data Bank, website: <https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm>
- IARC - International Agency for Research on Cancer, website: <http://www.iarc.fr/>

- eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website:
http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en
- CAMEO Chemicals, website: <http://cameochemicals.noaa.gov/search/simple>
- ChemIDplus, website: <http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp>
- ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: <http://www.phmsa.dot.gov/hazmat/library/erg>
- Germany GESTIS-database on hazard substance, website:
<http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp>
- ECHA - European Chemicals Agency, website: <https://echa.europa.eu/>

Other Information

Magnesium sulfate heptahydrate is also known as Epsom salt or bitter salt. Other CAS numbers: 14168-73-1 (monohydrate); 17830-05-6 (dihydrate); 15320-30-6 (trihydrate); 15244-29-8 (tetrahydrate); 17830-17-0 (pentahydrate); 17830-18-1 and 13778-97-7 (hexahydrate); 10034-99-8 (heptahydrate); 22189-08-8 (x-hydrate).

Any questions regarding this SDS, Please send your inquiry to ydcl@yataichemical.com

Disclaimer: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. We as supplier shall not be held liable for any damage resulting from handling or from contact with the above product.