

MATERIAL SAFETY DATA SHEET

Trade Name: **Epsom Salt, Magnesium Sulfate, U.S.P.**

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1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product name: **Epsom Salt, Magnesium Sulfate, U.S.P.**

Product description: **Magnesium sulfate, heptahydrate**

Distributor: **Marine Biotherapies**

1996 West 3300 South

Ogden, UT 84401 USA

Telephone: **801-731-6051**

In case of emergency call: **801-731-6051**

For transportation emergency

Call CHEMTREC: **800-424-9300**

2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical and Common Name CAS Registry

Number

Wt. % OSHA PEL ACGIH TLV

Magnesium sulfate, heptahydrate; Epsom salt 10034-99-8* 100% Not Established Not Established

* Under the Toxic Substances Control Act (TSCA), hydrates are considered as mixtures of their anhydrous salt and water. Accordingly, the CAS Numbers 7487-88-9, 7732-18-5 are used for purposes of TSCA.

3. HAZARDS IDENTIFICATION

Emergency Overview: White or transparent crystalline odorless powder. Noncombustible. At very high temperatures, magnesium oxide, sulfur dioxide, and sulfur trioxide may be generated. Causes mild eye irritation.

Eye contact: Causes mild irritation to the eyes.

Skin contact: No known adverse effects.

Inhalation: Causes nausea, vomiting, abdominal cramps, and diarrhea.

Ingestion: Causes nausea, vomiting, abdominal cramps, and diarrhea.

Chronic hazards: No known chronic hazards. Not listed by NTP, IARC or OSHA as a carcinogen.

Physical hazards: Spilled material can be slippery.

4. FIRST AID MEASURES

Eye: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation persists.

Skin: Not applicable.

Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

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Ingestion: If large quantities of this material are swallowed, call a physician immediately. Do NOT induce vomiting unless directed to do so by a physician. Never give anything by mouth to an unconscious person.

5. FIRE FIGHTING MEASURES

Flammable limits: This material is noncombustible.

Extinguishing Media: This material is compatible with all extinguishing media.

Hazards to fire-fighters: See Section 3 for information on hazards when this material is present in the area of a fire.

Fire-fighting equipment: The following protective equipment for fire fighters is recommended when this material is present in the area of a fire: chemical goggles, body-covering protective clothing, self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Personal protection: Wear chemical goggles, See section 8.

Environmental Hazards: Sinks and mixes with water. No adverse effects known. Not a listed toxic chemical under SARA Title III, §313 40 CFR Part 372. Not a CERCLA Hazardous Substance under 40 CFR Part 302.

Small spill cleanup: Sweep, scoop or vacuum discharged material. Flush residue with water. Observe environmental regulations.

Large spill cleanup: Keep unnecessary people away; isolate hazard area and deny entry. Do not touch or walk through spilled material. Sweep, scoop or vacuum discharged material. Flush residue with water. Observe environmental regulations.

CERCLA RQ: There is no CERCLA Reportable Quantity for this material.

7. HANDLING AND STORAGE

Handling: Avoid breathing dust. Promptly clean up spills.

Storage: Keep containers closed. Protect from extremes of temperature and humidity during storage. Recommended storage conditions 68-110° F and 54-87% relative humidity.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls: Use with adequate ventilation. Safety shower and eyewash fountain should be within direct access.

Respiratory protection: Use a NIOSH-approved dust respirator where dust occurs. Observe OSHA regulations for respirator use (29 C.F.R. §1910.134)

Skin protection: Wear gloves if abrasion or irritation occurs.

Eye protection: Wear chemical goggles.

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9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: **Crystalline odorless powder.**

Color: **White or transparent.**

Odor: **Odorless.**

pH: **Approximately 6-7**

Specific gravity: **1.76 g/cm³, Bulk Density Approximately 1.05 g/cm³**

Solubility in water: **71g/100 ml at 20° C, 91g/100 ml at 40° C**

10. STABILITY AND REACTIVITY

Stability: **This material is stable under all conditions of use and storage.**

Conditions to avoid: **None.**

Materials to avoid: **Metal hydrides and other water reactive materials.**

Hazardous decomposition products: **At very high temperatures, magnesium oxide, sulfur dioxide, and sulfur trioxide may be generated.**

11. TOXICOLOGICAL INFORMATION

Acute Data: **When tested for primary irritation potential, this material caused mild eye irritation.**

RTECS reports Oral TDLo= 428 mg/kg in man 351 mg/kg in women

12. ECOLOGICAL INFORMATION

Eco toxicity: **Data not available.**

Environmental Fate: **This material is not persistent in aquatic systems and does not contribute to BOD. It does not bioconcentrate up the food chain.**

Physical/Chemical: **Sinks and mixes with water.**

13. DISPOSAL CONSIDERATIONS

Classification: **Disposed material is not a hazardous waste.**

Disposal Method: **Landfill according to local, state, and federal regulations. Disposed material is not a RCRA Hazardous waste.**

14. TRANSPORT INFORMATION

DOT UN Status: **This material is not regulated hazardous material for transportation.**

15. REGULATORY INFORMATION

CERCLA: **No CERCLA Reportable Quantity has been established for this material.**

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SARA TITLE III: Not an Extremely Hazardous Substance under §302. Not a Toxic Chemical under §313. Hazard Categories under §§311/312: Acute

TSCA: All ingredients of this material are listed on the TSCA inventory.

FDA: Magnesium sulfate is an FDA GRAS substance pursuant to 21 CFR 184.1443.

16. OTHER INFORMATION

Prepared by: **John G. Blumberg**

Supersedes revision of: **03/07/05**

THE INFORMATION ON THIS SAFETY DATA SHEET IS BELIEVED TO BE ACCURATE AND IT IS THE BEST INFORMATION AVAILABLE TO PQ CORPORATION THIS DOCUMENT IS INTENDED ONLY AS A GUIDE TO THE APPROPRIATE PRECAUTIONS FOR HANDLING A CHEMICAL BY A PERSON TRAINED IN CHEMICAL HANDLING.

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