

MATERIAL SAFETY DATA SHEET

Revision #: 02

Section 1 - Product Identification & Use

Product Name: **Epsom Salt**
Synonyms: **Magnesium Sulfate; Bitter Salts**
WHMIS Classification: Not controlled
TDG Classification: Not regulated
Supplier: Advance Chemicals Ltd.
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Section 2 - Hazardous Ingredients

Hazardous Components	%(w/w)	C.A.S. No.	LD ₅₀ & LC ₅₀
Magnesium Sulfate Heptahydrate	>99	10034-99-8	oral, rat 4000mg/kg

Section 3 - Physical Data

Physical state: solid
Specific Gravity: 1.68 at 25°C
pH 1% solution: no data
Vapour pressure: no data
Boiling point: no data
Freezing point: no data
Solubility in water: soluble
Evaporation rate: no data
Odour & Appearance: Clear crystal. No odour.

Section 4 - Fire or Explosion Hazard

Flammability: The product is not considered to be flammable.
Extinguishing media: This material is not combustible. Use any appropriate medium for extinguishing surrounding fire.
Special Fire Fighting Procedures: None.

Section 5 - Reactivity Data

Stability: Stable.
Hazardous Combustion/Decomposition Products: May liberate sulfur oxides and magnesium oxide at very high temperatures. Inhalation of magnesium oxide fumes can cause metal fume fever and leukocytosis.
Conditions to Avoid: Extremely high temperatures.
Materials to Avoid: Phosphorous, Maleic Anhydride

Section 6 - Toxicological Properties

Inhalation: Breathing dust may irritate the nose and throat and cause coughing and chest discomfort.
Skin contact: Prolonged or repeated contact with the dust may irritate the skin.
Eye contact: Dust may irritate the eyes and cause slight transient corneal injury.
Ingestion: Swallowing large amounts may cause catharsis, vomiting, cramps and/or diarrhea.

Section 7 - Preventative Measures

Personal Protective Equipment: Avoid contact with skin and eyes. Wear chemical protective gloves, goggles and face shield, rubber apron and boots. Eye wash fountains and safety shower facilities should be provided nearby for emergency use.
Respiratory protection: Dust mask required if total dust level exceeds 10 mg/m³. Use an NIOSH/MSHA approved air purifying, dust, mist and particulate respirator.
Action to take for spills & leaks: Wear chemical protective clothing, rubber gloves and suitable respiratory protection. Small spills should be swept or vacuumed up and disposed of in government approved waste containers. The spill area may then be flushed with large quantities of water. Larger spills should be contained by diking with sand, soil or other non-combustible material, and then transferred into approved waste containers for proper disposal. Do not allow spilled or waste product to flow into waterways. Keep product out of sewers, storm drains, surface run-off water and soil. Restrict access to non-protected personnel. Comply with all government regulations on spill reporting, and handling and disposal of waste.
Disposal methods: Dispose of contaminated product and materials used in cleaning up spills or leaks in a manner approved for this material. Consult appropriate federal, provincial and local regulatory agencies to ascertain proper disposal procedures. **Note:** empty

containers can have residues, gasses and mists, and are subject to proper waste disposal as mentioned above.

Storage & Handling Precautions: Causes eye, skin and respiratory irritation. Avoid contact with eyes and repeated contact with skin and clothing. Do not enter such spaces until they have been well ventilated and carbon dioxide and oxygen levels have been determined to be safe. Do not ingest. Keep container tightly closed when not in use. Store upright in a cool, dry, well-ventilated place away from incompatible materials. Do not use pressure to empty container. Wash thoroughly after handling. Use with adequate ventilation.

Section 8 - First Aid Measures

If inhaled: Remove victim to fresh air. Give artificial respiration if not breathing. Get immediate emergency medical attention. Keep patient warm and at rest.

In case of eye contact: Immediately flush eyes with clean luke warm water for at least twenty (20) minutes, lifting the upper and lower eye lids to ensure complete flushing action of the eyeball. Get immediate emergency medical attention. Do not transport victim until the recommended flushing period has been completed, unless eye flushing can be carried out during transport.

In case of skin contact: Immediately flush skin with plenty of clean running water for at least twenty (20) minutes. Remove contaminated clothing and shoes. If irritation persists, get emergency medical attention. Wash and launder clothes before re-use.

In case of ingestion or swallowing: If large amounts ingested, immediately induce vomiting by giving 2 glasses of water and sticking a finger down the throat. Never give anything by mouth to an unconscious victim. GET IMMEDIATE EMERGENCY MEDICAL ATTENTION.

Section 9 - Preparation Information

Advance Chemicals Limited expressly disclaims all expressed or implied warranties of merchantability and fitness for a particular purpose with respect to the product provided. The information contained herein is offered only as a guide to the handling of this specific product, and has been prepared in good faith by technically knowledgeable personnel. This M.S.D.S. is not intended to be all-inclusive, and the manner and conditions of use may involve other and additional considerations.

Revised: 6 July 2004; 22 November 2006