



Trade Name: Epsom Salt, Agricultural Grade

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#### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product name: Epsom Salt, Agricultural Grade
Product description: Magnesium sulfate, heptahydrate
Product Use: Plant nutrient, livestock supplement

Manufacturer: PQ Corporation

P. O. Box 840, Valley Forge, PA USA

Phone number: 610-651-4200

Supplier: National Silicates

429 Kipling Ave, Toronto, ON M8Z 5C7

Phone number: 416-255-7771

*In case of emergency call:* 1 416-255-7771

#### 2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical and Common Name CAS Registry Wt. % OSHA PEL ACGIH TLV

Number

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

**Epsom salt** 

### 3. HAZARDS IDENTIFICATION

Emergency Overview: White or transparent crystalline odorless powder. Non-combustible. 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.

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 non-combustible.

Extinguishing Media: This material is compatible with all extinguishing media



<sup>\*</sup> 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.

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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 (US): There is no CERCLA Reportable Quantity for this material.

### 7. HANDLING AND STORAGE

Handling: Avoid breathing dust. Promptly clean up pills.

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 Provincial

regulations for respirator use.

Skin protection: Wear gloves if abrasion or irritation occurs.

Eye protection: Wear chemical goggles.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Crystalline odourless powder.

Color: White or transparent.

Odour: Odourless.

pH: Approximately 6-7

Specific gravity: 1.76 g/cm<sup>3</sup>, Bulk Density Approximately 1.05 g/cm<sup>3</sup>

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

Metal hydrides and other water reactive materials.



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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

Disposal Method: Dispose in accordance with federal, provincial and local regulations.

14. TRANSPORT INFORMATION

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

15. REGULATORY INFORMATION

WHMIS (Canada): Not a WHMIS controlled product

DSL (Canada): All components of this formulation are listed on the CEPA-DSL

CERCLA (US): No CERCLA Reportable Quantity has been established for this material.

SARA TITLE III (US): Not an Extremely Hazardous Substance under §302. Not a Toxic Chemical under

§313. Hazard Categories under §§311/312: Acute

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

FDA: Magnesium sulfate is authorized by FDA GRAS substance pursuant to 21 CFR

184.1443. Epsom salt, Agricultural grade is not a suitable grade of magnesium

sulfate for pharmaceutical uses.

16. OTHER INFORMATION

Prepared by: EHS Dept
Supersedes revision of: March 10, 2009

THE INFORMATION ON THIS SAFETY DATA SHEET IS BELIEVED TO BE ACCURATE AND IT IS THE BEST INFORMATION AVAILABLE TO NATIONAL SILICATES 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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