SAFETY DATA SHEET

Magnesium Sulfate Heptahydrate

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SECTION 1 – MATERIAL IDENTIFICATION AND INFORMATION

Issue Date: July 2015 Revision Date: August 2018

Product Name: Magnesium Sulfate Heptahydrate, (a.k.a. Epsom Salt)

CAS # 10034-99-8

Contact Information:

CERES Corporation. 4712 Admiralty Way, #250, Marina Del Rey, CA 90292, United States of America TEL: 714.709.3683

SECTION 2 – COMPOSITION

Item	Weight %
MgSO4.7H2O	99.5 Min
MgSO4	48.59 Min
MgO	16.2 Min
Mg	9.8 Min

SECTION 3 – HAZARDS IDENTIFICATION

Appearance and Odor: white. No odor.

Emergency Overview: Harmful if swallowed. Eye or skin contact may cause irritation. Avoid

overexposure.

Fire and Explosion Hazards: Substance itself does not burn, but may decompose upon heating.

Carcinogenicity: Not listed as a carcinogen by IARC, NTP, OSHA, or ACGIH.

SECTION 4 – FIRST AID MEASURES

If inhaled: May cause irritation of the upper respiratory tract, resulting in difficulty breathing. Keep patient calm, remove to fresh air. Assist in breathing if necessary and seek medical attention IMMEDIATELY.

If on skin: Wash thoroughly with soap and water. If irritation develops, seek medical attention IMMEDIATELY.

If in eyes: Wash affected eyes for at least 15 minutes under running water with eyelids held open. If irritation develops, seek medical attention IMMEDIATELY.

If swallowed: Rinse mouth and then drink plenty of water. Seek medical attention IMMEDIATELY. Toxic by ingestion if not diluted. May cause irritation to the mouth and stomach. Higher doses may lead to nausea or vomiting, stomach pain, diarrhea, fast and weak pulse, lethargy, pallor, hypertension, or fever.

SECTION 5 – FIRE FIGHTING MEASURES

Flash point: Not applicable Flammability: Non-flammable

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SECTION 6 – ACCIDENTAL RELEASE MEASURES

Review safety precautions before proceeding with cleanup. Use appropriate personal protection equipment. Do not touch spilled material. Neutralize liquid spills with WATER. Restrict access to area until completion of clean up.

CERCLA Reportable Discharge (RQ): 1000 lbs. (454 kg)

Disposal: Under the Resource Conservation and Recovery Act (RCRA), it is the responsibility of the user to determine whether a substance should be classified as a hazardous waste at the time of disposal. This is due to the fact that product use, transformation, synthesis, mixtures, etc. may change the nature of the product. Dispose of waste in accordance with applicable federal, state, and local laws.

Steps To Be Taken In Case Material Is Released Or Spilled: Notify the appropriate environmental authorities.

SECTION 7 - HANDLING AND STORAGE

Handling: Handle in accordance with good industrial hygiene and safety practice. Wear suitable personal protective clothing and equipment.

Storage temperature: Store in dry cool place. Do not store in direct sunlight or in extreme high or low temperatures.

Protection against fire and explosion: Not explosive but keep away from flames

Storage incompatibility: Segregate from acids and from oxidants.

Storage stability: Do not store in direct sunlight.

SECTION 8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION

Personal protective equipment respiratory protection: Adequate general ventilation should be provided to keep vapor mists below exposure limits. Wear a NIOSH-certified (or equivalent) particulate respirator. Do not exceed the maximum use concentration for the respirator face piece/cartridge combination.

Skin protection: Where there is possibility of skin contact, use the following as appropriate, to avoid skin contact: gloves impervious to material, apron, boots, hood, pants, and jacket. Maintain a safety shower with quick opening valves. Water should be supplied through insulated and heat-traced lines to prevent freeze-ups in cold weather.

Eye protection: Tightly fitting splash resistant safety goggles or face mask (chemical goggles). General safety and hygiene measures: Handle in accordance with good industrial hygiene and safety practice. Wearing of closed work clothing is recommended.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Form: Solid Odor: none Solubility in water: 99% soluble pH: 5-7

SECTION 10 - STABILITY AND REACTIVITY

Reactivity: Hazardous reactions are not expected to occur under normal conditions

Stability: Stable at normal conditions **Polymerization:** Will not occur. **Decomposition:** Not applicable

Incompatibility: Avoid oxidizing agents and alkalis.

SECTION 11 - TOXICOLOGICAL INFORMATION

Chronic Effects: No data available.

Toxicological Data: No data available.

Carcinogenicity: Not listed as a carcinogen by IARC, NTP, OSHA, or ACGIH.

Reproductive Effects: No data available.

Target Organs: No data available.

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicological Information: No negative ecological effects of this product are known. All components are biodegradable and non-toxic when diluted with water. Supports nutrient enrichment to soils, the environmental and ecological systems.

Aquatic toxicity:

No information is known.

SECTION 13 - DISPOSAL CONSIDERATIONS

Under the Resource Conservation and Recovery Act (RCRA), it is the responsibility of the user to determine whether a substance should be classified as a hazardous waste at the time of disposal. This is due to the fact that product use, transformation, synthesis, mixtures, etc. may change the nature of the product. Product containers should be thoroughly emptied before disposal. Dispose of waste in accordance with applicable federal, state, and local laws.

Waste disposal of substance: Dispose of in a licensed facility. Dispose of in accordance with national, state and local regulations.

Container disposal: Contaminated packaging should be emptied as far as possible; then it can be passed on for recycling after being thoroughly cleaned.

SECTION 14 - TRANSPORTATION INFORMATION

In accordance with ADR / RID / IMDG / IATA / ADN

US DOT- non hazardous. Not a DOT controlled material.

ADR- Not regulated for transport. Non hazardous. No Special precautions.

IMDG- Not regulated for transport. Non hazardous. No Special precautions.

IATA- Not regulated for transport. Non hazardous. No Special precautions.

Hazard Class: non hazardous

Special Provisions for Transport: Not applicable

SECTION 15 – OTHER INFORMATION

US FEDERAL

TSCA

CAS# 10034-99-8 is not on the TSCA Inventory because it is a hydrate. It is considered to be listed if the CAS number for the anhydrous form is on the inventory (40CFR720.3(u)(2)).

CAS# 7487-88-9 is listed on the TSCA inventory.

Health & Safety Reporting List

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None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

Section 12b

None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

CERCLA Hazardous Substances and corresponding RQs

None of the chemicals in this material have an RO.

SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

SARA Codes

CAS # 7487-88-9: immediate.

Section 313 No chemicals are reportable under Section 313.

Clean Air Act:

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depletors.

This material does not contain any Class 2 Ozone depletors.

Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

STATE

CAS# 10034-99-8 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

CAS# 7487-88-9 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

California Prop 65

California No Significant Risk Level: None of the chemicals in this product are listed.

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols:

Not available.

Risk Phrases:

Safety Phrases:

S 37 Wear suitable gloves.

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S 28A After contact with skin, wash immediately with plenty of water

WGK (Water Danger/Protection)

CAS# 10034-99-8: 0

CAS# 7487-88-9: 0

Canada - DSL/NDSL

CAS# 10034-99-8 is listed on Canada's DSL List.

CAS# 7487-88-9 is listed on Canada's DSL List.

Canada - WHMIS

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WHMIS: Not available.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

Canadian Ingredient Disclosure List

Disclaimer/ Additional information:

We value the health and safety of our employees, customers, suppliers and neighbors, and the protection of the environment. Our commitment to safety is integral to conducting our business and operating our facilities in a safe and environmentally responsible fashion, supporting our customers and suppliers in ensuring the safe and environmentally sound handling of our products.

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END OF DATA SHEET