



**Haifa BitterMag™
Magnesium Sulphate**

Date of compilation: 8/19/2019 Revised: 8/24/2025 Version: 2.2 (Replaced 2.1)

SECTION 1: IDENTIFICATION

1.1 Product identifier: Haifa BitterMag™
Magnesium Sulphate
Magnesium sulphate · 7H2O

CAS: 10034-99-8

Other means of identification:
Non-applicable

1.2 Recommended use of the chemical and restrictions on use:
Relevant uses (Professional users): Fertilizer
Relevant uses (Industrial user): Fertilizer
For Professional users/Industrial user only.
Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, U.S. address, and U.S. telephone number of the chemical manufacturer, importer, or other responsible party:

Haifa North America
Cranes Roost Blvd Suite 307
1038, Altamonte Springs
Florida 32701
Tel: +1-800- 649- 4944
Fax: +1-(407) 862 6400

NorthAmerica@haifa-group.com

1.4 Emergency phone number: U.S Poison Control: 1-800-222-1222

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:
29 CFR 1910.1200:
While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

2.2 Label elements:
29 CFR 1910.1200:
None

2.3 Hazards not otherwise classified (HNOC):
Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:
Chemical description: Inorganic substance
Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

Identification	Chemical name/Classification	Concentration
CAS: 10034-99-8	Magnesium sulphate · 7H2O	100 %

To obtain more information on the hazards of the substances consult sections 11, 12 and 16.

- CONTINUED ON NEXT PAGE -



Haifa BitterMag™
Magnesium Sulphate

Date of compilation: 8/19/2019

Revised: 8/24/2025

Version: 2.2 (Replaced 2.1)

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

3.2 Mixtures:

Non-applicable

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:

Consult a doctor in case of discomfort with this Safety data Sheet.

By inhalation:

In case of symptoms, move the person affected into fresh air.

By skin contact:

In case of contact it is recommended to clean the affected area thoroughly with water and neutral soap. In case of changes to the skin (stinging, redness, rashes, blisters,...), seek medical advice with this Safety Data Sheet

By eye contact:

Rinse with water until the product has been eliminated. In case of problems, consult a doctor with the SDS of this product.

By ingestion/aspiration:

In case of consumption in large quantities, it is recommended to seek medical assistance.

4.2 Most important symptoms/effects, acute and delayed:

Acute and delayed effects are indicated in sections 2 and 11.

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

Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:

Suitable extinguishing media:

Product is non-flammable under normal conditions of storage, handling and use. In the case of combustion as a result of improper handling, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems.

Unsuitable extinguishing media:

Non-applicable

5.2 Specific hazards arising from the chemical:

Due to its non-flammable nature, the product does not present a fire risk under normal conditions of storage, manipulation and use.

5.3 Special protective equipment and precautions for fire-fighters:

Depending on the magnitude of the fire it may be necessary to use full protective clothing and Self Contained Breathing Apparatus. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:

As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:

For non-emergency personnel:

Isolate leaks provided that there is no additional risk for the people performing this task.

For emergency responders:

Wear protective equipment. Keep unprotected persons away. See section 8.

6.2 Environmental precautions:

- CONTINUED ON NEXT PAGE -



**Haifa BitterMag™
Magnesium Sulphate**

Date of compilation: 8/19/2019 Revised: 8/24/2025 Version: 2.2 (Replaced 2.1)

SECTION 6: ACCIDENTAL RELEASE MEASURES (continued)

This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

6.3 Methods and materials for containment and cleaning up:

For accidental releases in excess of reportable quantities (RQ) (Table 302.4), refer to 40 CFR 302 for detailed instructions concerning reporting requirements and notify the National Response Center (800) 424-8802.

Sweep up and shovel product or other means and place in container for reuse (preferred) or disposal

6.4 Reference to other sections:

See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:

A.- General precautions for safe use

Comply with the current legislation concerning the prevention of industrial risks with regards manually handling weights. Maintain order, cleanliness and dispose of using safe methods (section 6).

B.- Technical recommendations for the prevention of fires and explosions

It is recommended to transfer at a slow speed to avoid the creation of electrostatic charges that could affect flammable products. Consult section 10 for conditions and materials that should be avoided.

C.- Technical recommendations on general occupational hygiene

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks

It is not necessary to take special measures to prevent environmental risks. For more information see subsection 6.2

7.2 Conditions for safe storage, including any incompatibilities:

A.- Specific storage requirements

Store in a cool, dry, well-ventilated location

B.- General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:

Substances whose occupational exposure limits have to be assessed in the workplace:

Nuisance dust: Inhalable dust 10 mg/m³ // Respirable dust 4 mg/m³

8.2 Appropriate engineering controls:

A.- Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B.- Respiratory protection

If the working conditions and/or safety measures adopted do not allow keeping the airborne concentration of the product below the exposure limits (if any) or at acceptable levels (if no exposure limits exist), suitable respiratory protection equipment chosen by a qualified professional should be used.

C.- Specific protection for the hands

Non-applicable

D.- Eye and face protection

- CONTINUED ON NEXT PAGE -



**Haifa BitterMag™
Magnesium Sulphate**

Date of compilation: 8/19/2019

Revised: 8/24/2025

Version: 2.2 (Replaced 2.1)

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

Non-applicable

E.- Bodily protection

Non-applicable

F.- Additional emergency measures

It is advised to implement additional emergency equipments in workplaces that are particularly exposed to the product or in situations where risk assessments highlight the necessity of such equipments.

It is not necessary to take additional emergency measures.

Environmental exposure controls:

To comply with environmental protection regulations, it is recommended to prevent any spillage of the product and its container. For more detailed information, please refer to subsection 7.1.D.

40 CFR Part 59 (VOC):

V.O.C.(weight-percent): 0 % weight

V.O.C. at 68 °F: 0 kg/m³ (0 g/L)

California Air Resources Board (CARB) - VOC Regulatory:

V.O.C.(weight-percent): 0 % weight

V.O.C. at 68 °F: 0 kg/m³ (0 g/L)

South Coast Air Quality Management District (AQMD) - VOC Regulatory:

V.O.C.(weight-percent): 0 % weight

V.O.C. at 68 °F: 0 kg/m³ (0 g/L)

Ozone Transport Commission (OTC) Rules - VOC Regulatory:

V.O.C.(weight-percent): 0 % weight

V.O.C. at 68 °F: 0 kg/m³ (0 g/L)

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

For complete information see the product datasheet.

Appearance:

Physical state at 68 °F: Solid

Appearance: Non-applicable *

Color: Non-applicable *

Odor: Non-applicable *

Odour threshold: Non-applicable *

Volatility:

Boiling point at atmospheric pressure: Non-applicable *

Vapour pressure at 68 °F: Non-applicable *

Vapour pressure at 122 °F: Non-applicable *

Evaporation rate at 68 °F: Non-applicable *

Product description:

Density at 68 °F: 1680 kg/m³

Relative density at 68 °F: 1.68

Dynamic viscosity at 68 °F: Non-applicable *

Kinematic viscosity at 68 °F: Non-applicable *

Kinematic viscosity at 104 °F: Non-applicable *

Concentration: Non-applicable *

*Non-applicable due to the nature of the product, not providing information property of its hazards.

- CONTINUED ON NEXT PAGE -



**Haifa BitterMag™
Magnesium Sulphate**

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Revised: 8/24/2025

Version: 2.2 (Replaced 2.1)

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

pH:	Non-applicable *
Vapour density at 68 °F:	Non-applicable *
Partition coefficient n-octanol/water 68 °F:	Non-applicable *
Solubility in water at 68 °F:	Non-applicable *
Solubility properties:	Non-applicable *
Decomposition temperature:	Non-applicable *
Melting point/freezing point:	482 °F

Flammability:

Flash Point:	Non-applicable *
Flammability (solid, gas):	Non-applicable *
Autoignition temperature:	Non-applicable *
Lower flammability limit:	Non-applicable *
Upper flammability limit:	Non-applicable *

Explosive (Solid):

Lower explosive limit:	Non-applicable *
Upper explosive limit:	Non-applicable *

Particle characteristics:

Median equivalent diameter:	Non-applicable *
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9.2 Other information:

Information with regard to physical hazard classes:

Explosive properties:	Non-applicable *
Oxidising properties:	Non-applicable *
Corrosive to metals:	Non-applicable *
Heat of combustion:	Non-applicable *
Aerosols-total percentage (by mass) of flammable components:	Non-applicable *

Other safety characteristics:

Surface tension at 68 °F:	Non-applicable *
Refraction index:	Non-applicable *

*Non-applicable due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7 from Safety Data Sheet.

10.2 Chemical stability:

Chemically stable under the indicated conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:

Applicable for handling and storage at room temperature:

Shock and friction	Contact with air	Increase in temperature	Sunlight	Humidity
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

10.5 Incompatible materials:

Acids	Water	Oxidising materials	Combustible materials	Others
Avoid strong acids	Not applicable	Not applicable	Not applicable	Avoid alkalis or strong bases

- CONTINUED ON NEXT PAGE -



**Haifa BitterMag™
Magnesium Sulphate**

Date of compilation: 8/19/2019

Revised: 8/24/2025

Version: 2.2 (Replaced 2.1)

SECTION 10: STABILITY AND REACTIVITY (continued)

10.6 Hazardous decomposition products:

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions it could be released: Mixture composed of inorganic substances.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:

LD50 oral > 5000 mg/kg (rat)

Dangerous health implications:

In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):

- Acute toxicity: Based on available data, the classification criteria are not met
- Corrosivity/Irritability: Based on available data, the classification criteria are not met

B- Inhalation (acute effect):

- Acute toxicity : Based on available data, the classification criteria are not met
- Corrosivity/Irritability: Based on available data, the classification criteria are not met

C- Contact with the skin and the eyes (acute effect):

- Contact with the skin: Based on available data, the classification criteria are not met
- Contact with the eyes: Based on available data, the classification criteria are not met

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- Carcinogenicity: Based on available data, the classification criteria are not met
IARC: Non-applicable
- Mutagenicity: Based on available data, the classification criteria are not met
- Reproductive toxicity: Based on available data, the classification criteria are not met

E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met
- Skin: Based on available data, the classification criteria are not met

F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met
- Skin: Based on available data, the classification criteria are not met

H- Aspiration hazard:

Based on available data, the classification criteria are not met

Other information:

Non-applicable

Specific toxicology information on the substances:

Identification	Acute toxicity		Genus
Magnesium sulphate · 7H ₂ O CAS: 10034-99-8	LD50 oral	>5000 mg/kg	
	LD50 dermal	>5000 mg/kg	
	LC50 inhalation dust	>5 mg/L	

SECTION 12: ECOLOGICAL INFORMATION

Based on available data, the classification criteria are not met

12.1 Ecotoxicity (aquatic and terrestrial, where available):

- CONTINUED ON NEXT PAGE -



**Haifa BitterMag™
Magnesium Sulphate**

Date of compilation: 8/19/2019 Revised: 8/24/2025 Version: 2.2 (Replaced 2.1)

SECTION 12: ECOLOGICAL INFORMATION (continued)

Non-applicable

12.2 Persistence and degradability:

Non-applicable

12.3 Bioaccumulative potential:

Non-applicable

12.4 Mobility in soil:

Non-applicable

12.5 Results of PBT and vPvB assessment:

Non-applicable

12.6 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:

IT IS THE RESPONSIBILITY OF THE WASTE GENERATOR TO EVALUATE WHETHER HIS WASTES ARE HAZARDOUS BY CHARACTERISTICS OR LISTING.

Waste management (disposal and evaluation):

Follow RCRA framework and EPA regulation for to ensure that hazardous waste is managed safely and properly. Waste should not be disposed of to drains. Remind, It is the responsibility of the waste generator to evaluate whether his wastes are hazardous by characteristics or listing. See section 6 for further information about Accidental release measures.

Regulations related to waste management:

Legislation related to waste management:

40 CFR Solid Wastes - Part 239 through 282.

State regulatory requirements for generators may be more stringent than those in the federal program. Be sure to check the state's policies.

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:

With regard to 49 CFR on the Transport of Dangerous Goods:

- | | |
|--|----------------|
| 14.1 UN number: | Non-applicable |
| 14.2 UN proper shipping name: | Non-applicable |
| 14.3 Transport hazard class(es): | Non-applicable |
| Labels: | Non-applicable |
| 14.4 Packing group, if applicable: | Non-applicable |
| 14.5 Marine pollutant: | No |
| 14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises | |
| Physico-Chemical properties: | see section 9 |
| 14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): | Non-applicable |

Transport of dangerous goods by sea:

With regard to IMDG 41-22:

- CONTINUED ON NEXT PAGE -



**Haifa BitterMag™
Magnesium Sulphate**

Date of compilation: 8/19/2019

Revised: 8/24/2025

Version: 2.2 (Replaced 2.1)

SECTION 14: TRANSPORT INFORMATION (continued)

- 14.1 UN number:** Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Marine pollutant: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
Special regulations: Non-applicable
EmS Codes:
Physico-Chemical properties: see section 9
Limited quantities: Non-applicable
Segregation group: Non-applicable
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

Transport of dangerous goods by air:

With regard to IATA/ICAO 2025:

- 14.1 UN number:** Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Marine pollutant: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

SECTION 15: REGULATORY INFORMATION

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

- CALIFORNIA LABOR CODE - The Hazardous Substances List: Non-applicable
- California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986) - Birth defects or other reproductive harm: Non-applicable
- California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986) - Cancer: Non-applicable
- CANADA-Domestic Substances List (DSL): *Magnesium sulphate · 7H₂O (10034-99-8)*
- CANADA-Non-Domestic Substances List (NDSL): Non-applicable
- Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) - Reportable Quantities: Non-applicable
- Hazardous Air Pollutants (Clean Air Act): Non-applicable
- Massachusetts RTK - Substance List: Non-applicable
- Minnesota - Hazardous substances ERTK: Non-applicable
- New Jersey Worker and Community Right-to-Know Act: Non-applicable
- New York RTK - Substance list: Non-applicable
- NTP (National Toxicology Program): Non-applicable
- OSHA Specifically Regulated Substances (29 CFR 1910.1001-1096): Non-applicable
- Pennsylvania Worker and Community Right-to-Know Law: Non-applicable
- Protective Action Criteria (PAC) with AEGs, ERPGs, & TEELs: *Magnesium sulphate · 7H₂O (10034-99-8)*
- Rhode Island - Hazardous substances RTK: Non-applicable
- SB-258 Cleaning Product Right to Know Act : Non-applicable
- The Toxic Substances Control Act (TSCA) : Non-applicable
- Toxic chemical release reporting under EPCRA section 313 (40 CFR Part 372): Non-applicable

Specific provisions in terms of protecting people or the environment:

It is recommended to use the information provided in this safety data sheet as a foundation for conducting workplace-specific risk assessments. These assessments will help establish the appropriate risk prevention measures for handling, using, storing, and disposing of this product.

Other legislation:

Take into consideration other applicable federal, state, and local laws and local regulations.

- CONTINUED ON NEXT PAGE -



Safety data sheet
according to 29 CFR 1910.1200

**Haifa BitterMag™
Magnesium Sulphate**

Date of compilation: 8/19/2019

Revised: 8/24/2025

Version: 2.2 (Replaced 2.1)

SECTION 15: REGULATORY INFORMATION (continued)

Fertilizers and amending materials are regulated at the state level rather than by the Federal Government. Please, Use the links below to either visit a specific state's agriculture website, or use the links to view the available state laws and regulations: https://www.aapfco.org/state_info.html. This Safety Data Sheet is not a guarantee of product specification or NPK value(s).

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:

This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 3:

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:

Non-applicable

Advice related to training:

According to 29 CFR 1910.1200, training on chemical hazards is necessary for employees using this product. This training will facilitate their understanding and interpretation of the safety data sheet, as well as the product label.

Principal bibliographical sources:

Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:

IMDG: International maritime dangerous goods code

IATA: International Air Transport Association

ICAO: International Civil Aviation Organisation

COD: Chemical Oxygen Demand

BOD5: 5-day biochemical oxygen demand

BCF: Bioconcentration factor

LD50: Lethal Dose 50

CL50: Lethal Concentration 50

EC50: Effective concentration 50

Log-POW: Octanol-water partition coefficient

Koc: Partition coefficient of organic carbon

IARC: International Agency for Research on Cancer

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Manufacturer Disclaimer: The information contained in this safety data sheet ("SDS") is based on sources, technical knowledge and current legislation. Furthermore, is based on data believed to be accurate; thus, the company does not assume any liability for its accuracy. The information provided herein cannot be considered a guarantee of the properties of this product and the same is simply a description of the security requirements. The use, occupational methodology and/or conditions for users of this product are not within our awareness or control. It is ultimately the responsibility of the user(s) to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information of this SDS only refers to this product, which should not be used for purposes other than those specified. Finally, the manner in which this product is used and whether there is any infringement of patents is the sole responsibility of the user(s).

END OF SAFETY DATA SHEET

Date of compilation: 8/19/2019

Revised: 8/24/2025

Version: 2.2 (Replaced 2.1)

Page 9/9