SAFETY DATA SHEET
Nutrisulfate® LT Granular

Revision Date: 4/19/2022
Version 1.2

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier

Product Name: Nutrisulfate-LT Granular

Synonyms: Magnesium Sulfate Heptahydrate, Epsom Salts

Product Form: Substance

Recommended use of the chemical and restrictions on use

Recommended Use: Remediation of contaminated groundwater and soils.
Restrictions on Use: Use as recommended by the label.

Details of the supplier and of the safety data sheet

Supplier
Tersus Environmental, LLC
1116 Colonial Club Rd
Wake Forest, NC 27587
Phone: +1-919-453-5577
Email: info@tersusenv.com

Emergency telephone number

For leak, fire, spill or accident emergencies, call:

+1-919-453-5577 (Tersus Office Hours, 8:00 AM to 5:00 PM Eastern)
+1-919-638-7892 (Tersus Outside office hours)
+1-800-424-9300 (Chemtrec 24 Hour Service – Emergency Only)
+1-703-527-3887 (Chemtrec Outside United States 24 Hour Service – Emergency Only)

2. HAZARD IDENTIFICATION

Classification of the substance or mixture

This product is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Label Elements

Emergency Overview

The product contains no substances which at their given concentration, are considered hazardous to health.		
Appearance	**Physical State**	**Odor**
Granular to fine granular	Solid	None

Causes mild irritation to the eyes.
No known adverse effects.
Causes nausea, vomiting, abdominal cramps, and diarrhea.
Spilled material can be slippery.

Hazards not otherwise classified (HNOC)

Other Information
Unknown Acute Toxicity: 100% of the mixture consists of ingredient(s) of unknown toxicity.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Formula Substance

Hazardous Components

This product is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200). No known chronic hazards. Not listed by NTP, IARC or OSHA as a carcinogen.

Components

Chemical Name	Concentration (%)	CAS Number
Magnesium sulfate, heptahydrate	100%	10034-99-8

Synonyms are provided in Section 1.
Occupational exposure limits, if available, are listed in Section 8.

4. FIRST AID MEASURES

General Information	Check the vital functions. If unconscious place in recovery position and seek medical advice. In case of respiratory arrest, administer artificial respiration. Cardiac arrest: perform resuscitation. Victim conscious with labored breathing: half-seated. Victim in shock: on his back with legs slightly raised. Vomiting: prevent asphyxia/aspiration pneumonia. Prevent cooling by covering the victim (no warming up). Keep watching the victim. Give psychological aid. Keep the victim calm, avoid physical strain. Take victim to a doctor if irritation persists. Remove affected person from source of contamination.
Eye Contact	Immediately flush eyes with running water for at least 20 minutes holding eyelids open. Get medical attention.
Skin Contact	Immediately wash with plenty of soap and water. Get medical attention if irritation occurs.
Inhalation	Move victim to fresh air. If not breathing, give artificial respiration. Get medical attention.
Ingestion	Rinse out mouth with water. Health injuries are not known or expected under normal use.
Most important symptoms and effects, both acute and delayed	Information not available
Indication of any immediate medical attention and special treatment needed	If exposed or concerned, get medical advice and attention.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media	There is no restriction on the type of extinguisher which may be used. Use extinguishing media suitable for surrounding area.
Specific Hazards Arising	Fire/explosion hazard: Not considered a significant fire risk. Main

from the chemical or mixture	combustion gas: sulfur oxides (SOx), metal oxides
Special Fire Fighting Procedures	Wear breathing apparatus plus protective gloves for fire only. Prevent, by any means available, spillage from entering drains or water courses. Use firefighting procedures suitable for surrounding area. DO NOT approach containers suspected to be hot. Cool fire exposed containers with water spray from a protected location. If safe to do so, remove containers from path of fire. Equipment should be thoroughly decontaminated after us.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Wearing of suitable protective equipment, removal of ignition sources and provision of sufficient ventilation, evacuate the danger area and consult experts.
First Aid:	In case of contact with skin, wash with soap and water. If symptoms occur, seek medical attention. In case of contact with eyes, rinse with plenty of water for at least 15 minutes and see an eye specialist if irritation persists. In case of inhalation, remove to fresh air. In case of ingestion, drink water. If symptoms occur, seek medical assistance.
Environmental Precautions	Take precautions to prevent entry into waterways, sewers, or surface drainage systems. Disposal according to local or international regulations.
Methods for Containment and Clean Up	Use appropriate tools to put the spilled solid in suitable container for recovery or disposal, avoid raising dust.

7. HANDLING AND STORAGE

Precautions for Safe handling	Avoid breathing dust. Promptly clean up spills.
Hygiene Measures	Handle in accordance with good industrial hygiene and safety procedures. Use good personal hygiene practices.
Storage Conditions	Keep containers closed and protected from extremes of temperature and humidity during storage. Recommended storage conditions 68-110°F and 54-87% relative humidity.
Incompatible Materials	Metal hydrides and other water reactive materials.

8. EXPOSRE CONTROL / PERSONAL PROTECTION

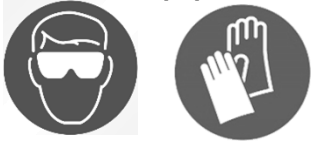
Control parameters

Exposure guidelines, ingredients with workplace control parameters.

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region-specific regulatory bodies.

Exposure Control

Protective equipment



Appropriate engineering controls	At this time no TLV has been established, even though this material may produce adverse health effects (as evidenced in animal experiments or clinical experience). Airborne concentrations must be maintained as low as is practically possible and occupational exposure must be kept to a minimum.
Eye/face protection	The following protection should be worn: Safety glasses with shields, chemical splash goggles or face shield.
Respiratory protection	Not needed
Hand protection	Neoprene. Vinyl, Rubber (natural, latex), Butyl rubber. Wear protective gloves made of the following material: Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. Polyvinyl chloride (PVC). Manufactured/tested in accordance with EN 374, Avoid the following conditions: Polyvinyl alcohol (PVA).
Other skin and body protection	Wear appropriate clothing to prevent any possibility of skin contact.
Hygiene measures	Wash promptly if skin becomes contaminated. Wash hands at the end of each work shift and before eating, smoking, and using the toilet. When using do not eat, drink, or smoke.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	White to transparent colorless solid
Odor	Almost odorless
Odor threshold	Information Not Available
pH	Approx. 6-7 (1 % solution)
Melting point /Freezing Point	150°C
Initial Boiling point and boiling point range	200°C
Flash Point	Unknown
Evaporation rate	Unknown
Flammability (solid; gas)	Unknown
Upper/lower flammability or explosive limits	Unknown
Vapor pressure	Unknown
Vapor density	Unknown
Specific Gravity	1.76g/cm
Bulk density	60-70 lb./ft3
Solubility (ies)	71 g / 100 cc (20°C), 91 g / 100 cc (40°C)
Partition coefficient: n-octanol/water	Unknown
Initial Boiling point and boiling point range	Unknown
Auto-ignition temperature	Unknown
Decomposition temperature	Unknown
Viscosity	Unknown

10. STABILITY AND REACTIVITY

Reactivity	Stable under normal conditions and use.

Chemical stability	Information not available
Possibility of hazardous reactions	Information not available
Conditions to avoid	Strong acids, alkalies, and oxidizing agent.
Incompatible materials	See Section 7.
Hazardous decomposition products	Thermal decomposition products - sulfur oxides (SOx), metal oxides.
Hazardous Polymerization	Hazardous polymerization will not occur.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Acute toxicity	100% of the mixture consists of ingredient(s) of unknown toxicity
Skin Corrosion/Irritation	Information Not Available
Serious Eye Damage/Irritation	Information Not Available
Respiratory or Skin Sensitization	Information Not Available
Ingestion	Information Not Available
Germ Cell Mutagenicity	Information Not Available
Carcinogenicity	Information Not Available
Reproductive Toxicity	Information Not Available
Specific Target Organ Toxicity – Single Exposure	Information Not Available
Specific Organ Toxicity – Repeated Exposure	Information Not Available
Aspiration Hazard	Information Not Available
General Remarks	Information Not Available

12. ECOLOGICAL INFORMATION

Chemical Fate Information
Information Not Available

Biodegradability
Not available.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods	Product disposal: Observe specific national regulation. Contaminated packaging: Contaminated, empty containers must be disposed of as chemical waste.

14. TRANSPORTATION INFORMATION

U.S. (D.O.T.)

Proper Shipping Name:	Chemicals not otherwise indexed (NOI) nonhazardous.
Hazard Class:	Not applicable
UN/NA:	Not applicable
Labels:	Not applicable

Canada (T.D.G.)

Proper Shipping Name:	Chemicals not otherwise indexed (NOI) nonhazardous.

Hazard Class:	Not applicable
UN/NA:	Not applicable
Labels	Not applicable

IMDG

Proper Shipping Name:	Chemicals not otherwise indexed (NOI) nonhazardous.
Hazard Class:	Not applicable
UN/NA:	Not applicable
Labels:	Not applicable

IATA

Proper Shipping Name:	Chemicals not otherwise indexed (NOI) nonhazardous.
Hazard Class:	Not applicable
UN/NA:	Not applicable
Labels:	Not applicable

15. REGULATORY INFORMATION

US Federal Regulations

SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

Acute health hazard	No
Chronic Health Hazard	No
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)
This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA
This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

US State Regulations

California Proposition 65
This product does not contain any Proposition 65 chemicals

16. OTHER INFORMATION

Components not precisely identified are proprietary or non-hazardous.

Disclaimer: The information contained in this Safety Data Sheet (SDS), as of the issue date, is believed to be true and correct. However, the accuracy or completeness of this information and any recommendations or suggestions are made without warranty, express or implied, or guarantee. Tersus Environmental, LLC urges each customer or recipient of this SDS to study it carefully and

consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/user's responsibility to ensure that his activities comply with all federal, state, provincial or local laws. Since we cannot control the application, use or processing of the product, we do not accept responsibility. Therefore, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product and assure that the intended use of the product will not infringe in any party's intellectual property right. The information presented here pertains only to the product as shipped.

All recommendations for the use of our products, whether given by us, orally or to be implied from data or lab tests results by us, are based on the current state of our knowledge at the time those recommendations are made. When additional information is obtained, these recommendations may be updated. They may also be influenced by circumstances outside our control. Notwithstanding, such recommendation the user is responsible that the product as supplied by us is suitable to the process or purpose he/she intends to use it.

Due to the proliferation of sources for information such as manufacturer specific SDSs, we are not and cannot be responsible for SDSs obtained from any source other than ourselves. If you have obtained an SDS from another source or if you are not sure that the SDS you have is current, please contact us for the most current version.

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919.453.5577 • info@tersusenv.com • tersus.com

End of Safety Data Sheet