
Nutrisulfate® SDS

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1 Product Identifier

Product Form Mixture
Product Name **Nutrisulfate**

1.2 Relevant identified uses of the substance or mixture and uses advised against

Main use category Professional use, Industrial use
Industrial/Professional use spec REMEDIATION OF GROUNDWATER AND SOIL
Uses advised against No additional information available

1.3 Details of the supplier and of the safety data sheet

Supplier Terus Environmental, LLC
 1116 Colonial Club Rd
 Wake Forest, NC 27587
 Phone: +1 (919) 453-5577
 info@tersusenv.com – www.tersusenv.com
Contact Person david.alden@tersusenv.com

1.4 Emergency telephone number:

Emergency Contact Number §45 – (EC)1272/2008
Europe 112
 +1-919-638-7892 Gary M. Birk (Outside office hours)
 +1-800-424-9300 (CHEMTREC) (USA) (Outside office hours)

SDS No. No additional information available

2. Hazard Identification

2.1 Relevant identified uses of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008
This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [GHS]

2.2 Label Elements

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [GHS]

CLP Signal word : None

2.3 Other hazards

3. Composition/Information on Ingredients

3.1 Substance

Not applicable

3.2 Mixtures

Sulfate, Nitrogen and Phosphorous Solution in Water

(Water, Magnesium, ammonium and calcium sulfate, di- and mono-ammonium hydrogenorthophosphate)

4. First Aid Measures

4.1 Description of 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.

Inhalation

Move the exposed person to fresh air at once. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Perform artificial respiration if breathing has stopped. Keep the affected person warm and at rest. Get prompt medical attention.

Ingestion

Drink plenty of water. DO NOT induce vomiting. Never give anything by mouth to an unconscious person.

Skin contact

Wash off promptly and flush contaminated skin with water. Promptly remove clothing of soaked through and flush skin with water. Get medical attention if irritation persists after washing. Do not apply (chemical) neutralizing agents.

Eye contact

Promptly wash eye with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes and get medical attention. Do not apply (chemical) neutralizing agents. In case of eye irritation consult an ophthalmologist. Remove any contact lenses and open eyelids wide apart.

4.2 Most important symptoms and effects, both acute and delayed

No information available

4.3 Indication of any immediate medical attention and special treatment needed

Note to physicians

Treat symptomatically

5. Fire Fighting Measures

5.1 Extinguishing media

Extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Carbon dioxide (CO₂). Dry chemicals, sand, dolomite, etc.

CAUTION: Use of water spray when fighting fire may be inefficient.

5.2 Special hazards arising from the substance or mixture

No information is available

5.3 Advice for firefighters

Special Fire Fighting Procedures

Cool containers exposed to flames with water until well after the fire is out. Use water spray to reduce vapors. If risk of water pollution occurs, notify appropriate authorities. Avoid water in straight hose stream; will scatter and spread fire. Keep upwind. Do not inhale explosion and combustion gases. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Cool containers exposed to flames with water until well after the fire is out. Use water spray to reduce vapors. If risk of water pollution occurs, notify appropriate authorities. Avoid water in straight hose stream; will scatter and spread fire. Wear positive-pressure, self-contained breathing apparatus (SCBA) and chemical protective clothing.

6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions Wear protective clothing as described in Section 8 of this safety data sheet.

6.2 Environmental precautions

Environmental precautions See section 12 for additional ecological information.

6.3 Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Absorb in non-combustible material, vermiculite, dry sand or earth and place into containers.

6.4 Reference to other sections

Disposal see section 13.

7. Handling and Storage

7.1 Precaution for safe handling

Precautions for safe handling Contain with applicable regulations. Avoid contact with eyes. Avoid inhalation of vapors and spray/mist. Remove contaminated clothing immediately. Clean contaminated objects and areas thoroughly observing environmental regulations. Handle in accordance with good industrial hygiene and safety procedures. Discharge into the environment must be avoided. Keep container tightly closed. Either local exhaust or general room ventilation is usually required.

Hygiene measures Handle in accordance with good industrial hygiene and safety procedures. Use good personal hygiene practices.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures Clean bulk tanks periodically to prevent accumulation of bacteria
Storage conditions Store in tightly-closed, original container in a well-ventilated place. Protect against frost. Protect against direct sunlight.
Storage temperature Above 7.2°C (45°F) and away from heat or flame.
Storage area Store in a dry area. Comply with applicable regulations. Collect spillage.
Packaging materials Stainless steel. Plastic.

7.3 Specific end use(s)

The above information describes explosively the safety requirements of the product and is based on our present-day-knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

8. Exposure controls/personal protection

8.1 Control parameters

Exposure Limits

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

Derived No Effect Level (DNEL) No information available

Predicted No Effect Concentration (PNEC) No information available

8.2 Exposure controls

Engineering controls Showers. Eyewash stations.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin and body protection Wear suitable protective clothing and gloves.

Respiratory protection Use in well ventilated areas.

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls

See Section 12

9. Physical and Chemical Properties

Appearance:	Clear liquid
Color:	Colorless
Odor:	Mild
pH:	See data sheet
Melting Point (°C):	no information available
Boiling Point (°C):	no information available
Flash Point (°C):	no information available
Specific Gravity (water=1):	no information available
Water Solubility (%):	no information available
Viscosity:	no information available
Vapor Pressure (mmHg):	no information available

10. Stability and reactivity

Stability: Stable at normal temperatures and pressures.

Incompatibility: Ethoxy ethyl alcohols. Arsenates. Tartrates. Barium. Strontium. Calcium. Lead Phosphates, avoid flames and strong oxidizing substances and strong acids.

Hazardous Polymerizations: Do not occur.

Hazardous Decomposition: This product may produce toxic levels of the following compounds when heated to decomposition:

Carbon monoxide

Carbon dioxide

11. Toxicological Information

Acute toxicity

Product information

Product does not present an acute toxicity hazard based on known or supplied information.

Inhalation Avoid breathing vapors or mists
May cause irritation of respiratory tract

Eye contact Redness
May cause slight irritation

Skin contact Prolonged contact may cause redness and irritation
Repeated exposure may cause skin dryness or cracking

Ingestion May cause drowsiness or dizziness
Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea
Symptoms include burning sensation, coughing, wheezing, shortness of breath, headache, nausea, and vomiting

Unknown acute toxicity 1.204 % of the mixture consists of ingredient(s) of unknown toxicity

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Water	: 90 mL/kg (Rat)		

Skin corrosion/irritation Mild

Serious eye damage/eye irritation Mild

Sensitization Not applicable

Germ cell mutagenicity Not applicable

Carcinogenicity No information available

Reproductive toxicity No information available

Developmental toxicity No information available

Teratogenicity No information available

STOT - single exposure No information available

STOT - repeated exposure No information available

Neurological effects No information available

Target organ effects Kidneys, Respiratory system, Eyes, Skin. Other adverse effects No information available

Symptoms No information available

Aspiration hazard No information available

12. Ecological Information

12.1 Toxicity

0 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

12.2 Persistence and degradability

No information available

12.3 Bioaccumulative potential

No information available

12.4 Mobility in soil

No information available

12.5 Results of PBT and vPvB assessment

No information available

12.6 Other adverse effects

Other adverse effects

No information available

Endocrine disruptor information

No information available

Ozone

No information available

13. Disposal Considerations

Keep out of drains, sewers, ditches and waterways.

Waste from Residues/Unused Products

Disposal should be in accordance with applicable regional, national and local laws and regulations. Send to a licensed recycler, reclaimer or incinerator.

Contaminated packaging

Empty containers must be tripled rinsed prior to disposal.

14. Transport Information

Transport class: This product does not require a classification for transport.

15. Regulatory Information

National Regulations

Occupational Illnesses (R-463-3, France)

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

International Inventories

All of the components in the product are on the following Inventory lists TSCA (United States);, Canada (DSL/NDSL), Europe (EINECS/ELINCS), Australia (AICS), South Korea (KECL);, China (IECSC), Philippines (PICCS).

TSCA Complies

EINECS Complies

ELINCS - DSL Complies

NDSL Complies

PICCS Complies

ENCS -

IECSC Complies

AICS Complies

KECL Complies

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

PICCS - Philippines Inventory of Chemicals and Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

AICS - Australian Inventory of Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

15.2 Chemical safety assessment

No information available

16. Other Information

Only Trained personnel should use this material.

The information contained in this sheet is for information purposes only. Its completeness and accuracy are not guaranteed.

Disclaimer

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. 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 intends to use it. The user of the product is solely responsible for compliance with all laws and regulations applying to the use of this product. Since we cannot control the application, use or processing of the product, we do not accept responsibility therefore. The user should assure that the intended use of the product will not infringe in any party's intellectual property right.

END OF SAFETY DATA SHEET