



MATERIAL SAFETY DATA SHEET
MSDS

SODIUM SULFATE

REVISION DATE: 09/16/2022

1. - PRODUCT AND COMPANY IDENTIFICATION

Product name: Sodium sulfate.

Internal Code of product identification:

Company name: USIQUÍMICA DO BRASIL LTDA.

Address: Rua da Lagoa, 431 - Cumbica - Guarulhos - SP.

Company Phone: + 5511 3821-7000 (PBX system) - + 5511 2481-3355.

Emergency phone: AMBIPAR - Environmental Emergency.

DDG (0800) 0111-767 - (0800) 7071-767 - 24 HOURS.

193 – Firefighters.

Main recommended uses for the substance: Detergent, pulp and paper, textile, chemical and dye industries.

2. - HAZARD IDENTIFICATION

Classification of Substance:

Product not classified by the GHS system.

GHS label elements, including precautionary phrases:

LABEL ELEMENTS	DATA
Product identification and supplier emergency telephone number.	Commercial Name: Sodium Sulfate. Emergency phone: SUATRANS - COTEC - Environmental Emergency. DDG (0800) 0111-767 - (0800) 7071-767 - 24 HOURS.
Hazard pictograms.	Product not classified by the GHS system.
Warning words.	Product not classified by the GHS system.
Danger phrases.	Product not classified by the GHS system.
Precautionary phrases.	Product not classified by the GHS system.

Other hazards which do not result in classification: No information found.

3. - COMPOSITION AND INFORMATION ABOUT INGREDIENTS

Substance:

Common chemical name or generic name: Sodium sulfate.

Formula: Na₂SO₄

CAS Number: 7757-82-6

Concentration: 90% to 100%

4. - FIRST AID MEASURES

First aid measures:

Inhalation: Remove casualty to uncontaminated, ventilated area. If breathing is difficult, give oxygen. Apply resuscitation maneuvers in case of cardiorespiratory arrest. Immediately forward to the nearest hospital.

Skin contact: Remove clothing contaminated by the product. Wash contact areas with plenty of soap and water. If irritation persists, seek medical attention.

Eye contact: Immediately flush eyes with saline or running water for 15 minutes, lifting eyelids to allow maximum product removal. seek medical attention.

Ingestion: Never give anything by mouth to an unconscious person. If a large amount of this substance is ingested, refer immediately to a doctor.



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What actions must be avoided: Do not induce to vomiting. If vomiting occurs spontaneously, the victim must be laid on their side to prevent pulmonary aspiration. Never administer liquids to unconscious victims.

Brief description of the main symptoms and effects: No known or expected symptoms.

Notes to the physician: Perform gastric lavage with saline solution for up to three hours after the occurrence. Do not use neutralizer. Accompany the injured person for at least 5 (five) days.

5. - FIREFIGHTING MEASURES

Suitable extinguishing measures: Use water spray, dry chemical powder, mechanical foam or carbon dioxide, according to materials close to the fire.

Inappropriate extinguishing measures: Waterjet.

Specific hazards: The product is a flame retardant. By thermal decomposition releases toxic gases (sulfur oxide, sodium oxide).

Additional indications: Water must not be directed directly onto the burning product, as it may spread and/or contaminate other areas.

Fire fighter Protection: Special protective equipment for personnel assigned to fight fires. Do not stay in the danger zone without self-contained breathing apparatus suitable for breathing independently of the environment. To avoid skin contact, maintain a safe distance and wear suitable protective clothing. Refresh closed containers exposed to fire with water spray. Suppress (shoot down) with water jets (fog) gases, vapors and mists. Avoiding contamination of surface water and groundwater with firefighting water.

6. - MEASURES OF CONTROL FOR ACCIDENTAL SPILLS OR LEAKAGE

Personal precautions, protective equipment and emergency procedures:

Personnel who are not part of the emergency services: Do not breathe vapors or aerosols. Avoiding contact with the substance. Ensuring adequate ventilation. Evacuating the danger area, observe emergency procedures. If necessary, consult an expert.

For the staff of the emergency department: Use complete PPE, with protective PVC gloves, safety glasses with side protection and suitable protective clothing. The material used must be waterproof. In the event of large spills, where exposure is high, the use of a protective mask with a vapor or mist filter is recommended.

Removal of ignition sources: Keep away from sources of heat and ignition.

Prevention of inhalation and contact with skin, mucous membranes and eyes: See Section 8, Field: "Appropriate Personal Protective Equipment".

Precautions to the environment: Prevent spilled product from entering water courses. Collect the spilled product, place the material in appropriate containers for proper final destination.

Methods and materials for containment and cleaning: Recover spilled product by placing in appropriate drums, identify as established in transport. Before disposal, proceed with the necessary neutralization, using dilute acids such as hydrochloric or acetic, observing the risks of the reaction that can be violent.

Disposal: Waste must be disposed of in accordance with current Environmental Legislation. Keep chemicals in their original containers. Do not mix with other waste. Handling dirty containers must be carried out in the same way as the product itself. An WSDS of the waste must be generated.

Differences in the action of large and small leaks: Absorb liquid with inert material. The product must be collected in suitable containers, properly identified, for later disposal. Washing the area with plenty of water, which must also be collected for disposal. Collecting contaminated soil. Risk of contamination of soils and rivers in the event of a large volume spill.

7. - HANDLING AND STORAGE

Handling:

Technical measures Using only in areas provided with adequate exhaust ventilation. Providing the product handling area with a set of emergency shower and eye wash. Handling must only be done with the indicated PPE and under safe conditions.

Prevention of worker's exposure: Avoid dust formation. Working with exhaust / chimney. Do not inhale the substance/mixture. Using specific PPE's - splash goggles, face shield, PVC gloves and protective clothing.



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Wash after handling and decontaminate PPE's after use. PPE's must be approved for use only with the respective CAs – Certificates of Approval.

Precautions and guidelines for safe handling: Use personal protective equipment (PPE) to avoid direct contact with the product. Handling the product in a well-ventilated place. Use a gloves and full body clothing when handling this product.

Storage:

Appropriate: Keep container tightly closed in a dry, cool and well-ventilated area. Keep in a cool, dry place in unopened original packaging.

To avoid: Moisture.

Hygiene measures:

Appropriate: Always sanitize your hands before handling any food, as there is a risk of food contamination. Contaminated clothing must be washed and sanitized before use. Always keep gloves free from moisture and decontaminated.

Inappropriate: Direct contact with the product and/or its residues.

Technical measures

Suitable conditions: Observe all necessary measures to prevent the product from accidentally leaking into sewers or water courses, in the event of rupture of containers or transfer systems. Store in a dry, cool and ventilated place, protected from direct sunlight. Store in tightly closed original container. Avoid contact with moisture.

Safe materials for packaging:

Recommendations: Polyethylene bags or big-bags. **Not suitable:** Any other packaging. **Further information:** Protect from moisture.

8. - EXPOSURE CONTROLS AND PERSONAL PROTECTION

Parameters of specific control: Not applicable.

Components with parameters to be controlled in the workplace:

Biological indicators: Not found.

Other limits and values: N.A.

Measures of engineering control: Handling the product in a place with good natural or mechanical ventilation, in order to keep the concentration of vapors/dust below the tolerance limit. Provide mechanical ventilation and direct exhaust system to the outside environment. These measures help to reduce exposure to the product. It is recommended to make emergency showers and eye washes available in the work area. Engineering control measures are most effective in reducing product exposure.

Appropriate Personal Protective Equipment:

Protection for the eyes/face: Common Safety Glasses is required for safe use of the product.

Skin protection: Protective clothing at work.

Respiratory protection: The use of a mask for organic vapors is recommended as a good practice. The product does not give off vapors at room temperature.

Hand protection: PVC gloves.

Thermal hazards: Not available.

Further information: Avoiding contact with the skin, eyes and mucosa for a long period, carrying out instantaneous washing of the affected areas. Avoid wearing contact lenses while handling this product.

9. - PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Hygroscopic solid., in various forms.

Color: White.

Odor: Odorless.

Odor threshold: Not available.

pH: 5.5 - 8.5 (10 g/l aqueous solution).



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Melting point / freezing point: 884°0.
Initial boiling point and boiling temperature range: Not available.
Flash point: Not available.
Evaporation rate: Not available.
Flammability (solid, gas): Product is not self-igniting.
Lower/upper flammability or explosiveness limit: Product is not self-igniting.
Vapor Pressure: Not available.
Vapor Density: Not available.
Relative Density 0.965 - 0.978 g/cm³.
Solubility (in water): 186 g/l at 20°C.
In Ethanol: Insoluble.
Liposolubility: Not available.
Partition coefficient - n-octanol / water: Not available.
Auto-ignition temperature: 410°C.
Decomposition temperature: > 250°C.
Viscosity: not available.
Specific weight: 2.7 g/cm³ at 20°C.

10. - STABILITY AND REACTIVITY

Specific conditions:

Reactivity: Stable product if stored and handled under the proper and indicated conditions.

Chemical stability: Stable under usual handling and storage conditions.

Possibility of hazardous reactions: It does not have conditions that by themselves will cause particularly dangerous reactions.

Conditions to avoid: Moisture.

Incompatible materials: Strong acids, Aluminum, Magnesium.

Hazardous decomposition products By thermal decomposition releases toxic gases (sulfur oxide, sodium oxide).

11. - TOXICOLOGICAL INFORMATION

Information according to the different routes of exposure: Acute toxicity:

LD50 Oral - rat - 5,989 mg/kg

Skin corrosion/irritation.

Possible consequences: moderate irritation with slight redness.

Severe ocular lesions/eye irritation:

Possible consequences: severe irritation with redness and pain. Some irritation may occur if exposed to too much dust.

Respiratory or skin sensitization

The product is not expected to have respiratory sensitization potential. The product is not expected to show skin sensitization.

Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

Not classified as a human carcinogen.

Reproductive toxicity

There is no evidence of adverse effects on reproductive organs or fertility.

Specific target organ toxicity - single exposure

Ingestion of the product may cause perforations in the tissues of the mouth, throat, esophagus and stomach.

Specific target organ toxicity - repeated exposure



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The product is not expected to present specific target organ toxicity – repeated exposure.

Aspiration hazard:

The product is not expected to present an aspiration hazard.

Additional Information

Product: Based on available data, the assessment criteria are not met.

12. - ECOLOGICAL INFORMATION

- Environmental effects, behaviors and impacts of the product: Ecotoxicity:

Aquatic toxicity: WGK or WHC (Water Hazard Class): I - Light hazard to the water.

Fish toxicity:

CL50 - other fish - 56 mg/l - 96 h

Toxicity to daphnia and other aquatic invertebrates. Immobilization

EC50 - Daphnia - 3,150.21 mg/l - 48 h

Persistence and degradability:

Due to the lack of data, it is expected that the product will show persistence and not be quickly degraded.

Bio accumulative potential:

It has low bio accumulative potential in aquatic organisms.

BCF: 0.5

log Kow: -4.38.

**mobility on the
ground** Not

Product: Ecological additional information: Not available.

13. - CONSIDERATIONS ON FINAL DISPOSAL

Recommended methods for final disposal:

The treatment and disposal of product residues must be done in a suitable environment, by people trained in the use of special equipment and the recommended PPE's to avoid contact with the product, its vapors or mists. Leaks must be contained and collected for later disposal after neutralization.

Product:

Ensure all Federal, State and local agencies receive proper notice of spills and disposal methods. CONAMA Resolution 005/1993, Law No. 12,305, as of August 2, 2010 (National Solid Waste Policy).

Product waste:

Consult environmental regulatory agencies for advice on acceptable regulatory practices. Come in contact with relevant local authorities. It can be incinerated when in compliance with local regulations. Or dispose of in an approved chemical waste landfill.

Used Package:

Empty containers must be drained and covered before handling and transport operations. If the package is not properly washed and decontaminated, it is considered to contain the product.

14. - TRANSPORT INFORMATION

National and International Regulations

Land:

Resolution No. 5947 of June 1, 2021 of the Brazilian National Land Transport Agency (ANTT), *approves the Supplementary Instructions to the Land Transport of Dangerous Goods Regulations and their amendments.*

UN Number: Product not covered by current regulations on the transport of dangerous products.

Appropriate name for shipment: -

Risk class: -



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Risk subclass: -
Risk number: -
Packing group: -

Waterway:

DPC – Directorate of Ports and Coasts (Transport in Brazilian waters) Maritime Authority Regulations (NORMAM)
NORMAM 01/DPC: Vessels Used in Open-seas Navigation

UN Number: Product not covered by current regulations on the transport of dangerous products.

Appropriate name for shipment: -

Risk class: -
Risk subclass: -
Risk number: -
Packing group: -

Air Transport:

ANAC - National Civil Aviation Agency - Resolution No. 129 as of January 8, 2009

RBAC N°175 - (BRAZILIAN CIVIL AVIATION REGULATION) - TRANSPORTATION OF DANGEROUS ITEMS IN CIVIL AIRCRAFT

IS No. 175-001 - SUPPLEMENTARY INSTRUCTION - IS

ICAO - "International Civil Aviation Organization" - Doc 9284-NA/905

IATA - "International Air Transport Association"

Dangerous Goods Regulation (DGR)

UN Number: Product not covered by current regulations on the transport of dangerous products.

Appropriate name for shipment: -

Risk class: -
Risk subclass: -
Risk number: -
Packing group: -

15. - REGULATIONS INFORMATION

Specific regulations for the chemical product:

Federal Decree No. 2,657, as of July 3, 1998;

Standard ABNT-NBR 14725:2019;

Ordinance No. 229, as of May 24, 2011 – Changes Regulatory Standard No. 26.

16. - OTHER INFORMATION

The information on this sheet corresponds to the current state of our knowledge and experience of the product and is not exhaustive. It applies to the product under the conditions specified, unless otherwise stated. In case of combinations or mixtures, make sure that no new danger can appear. This information does not, in any case, exempt the user of the product from complying with all legislative, regulatory and administrative texts relating to the product, safety, hygiene and protection of human and environmental health.

Bibliographical References:

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