

MATERIAL SAFETY DATA SHEET**I - PRODUCT IDENTIFICATION**

Product: pH Minus
Synonyms: Sodium Bisulfate, Anhydrous Globular, Technical
General ID: Sodium Acid Sulfate, Nitre Cake, Sodium Hydrogen Sulfate
Formula: NaHSO₄
CAS Number: 7681-38-1

II - TRANSPORTATION DATA**U.S. Department of Transportation - 49 CFR**

Not Classified as Hazardous
Emergency Telephone Number: Chemtrec 800-424-9300

International Maritime Organization - IMDG

ID Number: 1821 (for export only)
Emergency Telephone Number: Chemtrec 202-483-7616 [call collect]

III - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

<u>Chemical or Common Name</u>	<u>Percent</u>	<u>Exposure Limits</u>	
		<u>PEL</u>	<u>TLV</u>
Sodium Bisulfate	93.2	none	none
Sodium Sulfate	6.5	none	none

IV - PHYSICAL/CHEMICAL CHARACTERISTICS

Appearance: off-white, bead-like, granular material
Solubility in Water: 100%
Percent volatile by volume: non-volatile
Melting Point: 350°F
Bulk Density: 83 lb/ft³

V - FIRE AND EXPLOSION HAZARD DATA

Flash Point:
Not applicable, will not burn

Flammable Limits

LEL: N/A

UEL: N/A

Extinguishing Media:

Water or dry chemical as appropriate for combustibles in area. Avoid water contact to material if possible

Special Fire-fighting Procedures:

If water is used to extinguish combustibles and product is dissolved in water forming sulfuric acid, wear acid protective equipment. If elevated temperatures (>570°F) are reached, self-contained breathing apparatus should be worn

Unusual Explosion Hazards:

Product readily dissolves in water to form a weak sulfuric acid solution. No gases or toxic fumes are emitted from this reaction, but precautions for exposure to sulfuric acid should be followed

VI - REACTIVITY DATA

Stability:

Unstable Stable

Conditions to Avoid:

Store in dry area to avoid moisture contact

Incompatibility:

Avoid contact with strong alkaline materials such as caustic. Reacts with water to form weak sulfuric acid solution. Do not mix with liquid chlorine bleach, ammonia cleansers or similar products

Hazardous Decomposition or By-Products:

At temperatures over 570°F, product will decompose, generating oxides of sulfur. When heated over 570°F, sulfur dioxide and sulfur trioxide are formed

Hazardous Polymerization:

May Occur Will Not Occur

VII - PRECAUTIONS FOR SAFE HANDLING AND USE

Steps To Be Taken In Case Material Is Spilled Or Released:

Small Spill:

Material is a granular product and can be swept up from surfaces

Large Spill:

Pick up as much material as possible with shovel or other tool. Neutralize balance of spill with weak alkaline solution and wash down to sewer if federal, state or local regulations permit

Waste Disposal Method:

Comply with all federal, state and local regulations

VIII - HEALTH HAZARD DATA

OSHA Hazard Communications Health Hazard Classification:

Irritant

Section 312 of SARA Title III Hazard Category:

Immediate

HMIS Ratings:

Health: 1
Flammability: 0
Reactivity: 1
Personal Protection:F

NFPA Ratings:

1-0-1

Primary Health Hazards:

Eye: mild to severe irritant. May cause burns if not flushed with water.
Skin: moderate irritant. May cause burns if not flushed with water.
Inhalation: irritant. May irritate or burn nose, throat and lungs. No exposure limits established
Ingestion: irritant. May irritate or burn mouth, esophagus or stomach
Animal Test Data: rat LD50: 2800 mg/kg

Emergency and First Aid Procedures:

Ingestion: drink large quantities of milk or water. Follow with milk of magnesia, beaten eggs or vegetable oil. Do not induce vomiting. Contact physician immediately
Inhalation: move to fresh air location. If irritation or discomfort persists, seek medical attention
Skin Contact: immediately flush with water for 15 minutes. If burn occurs, obtain medical help
Eye Contact: immediately flush with water for 15 minutes, lifting eyelids to thoroughly flush. Get prompt medical attention

Notes to Physician:

Ingestion: body water content will react with sodium bisulfate to form a weak sulfuric acid solution, which may burn tissues in mouth, esophagus or stomach. Solution should be diluted to reduce burning effect.
Inhalation: mild burning sensations may occur to mucous membranes and upper respiratory tract
Skin Contact: mild burns may occur if not thoroughly flushed previously
Eye Contact: natural watering of eyes will dissolve sodium bisulfate, forming a weak sulfuric acid solution, which may cause burns. Flush affected area thoroughly with water. Do not use chemical antidotes or neutralizing solutions

IX - CONTROL MEASURES

Exposure Control/Personal Protection:

Respiratory: NIOSH or MSA certified dust mask should be worn while handling product to control exposure below nuisance dust limits of 10 mg/m³
Ventilation: local ventilation to a dust collector is recommended

Skin: wear acid resistant gloves such as rubber or neoprene
Eye: safety glasses or goggles
Other: clothes should completely cover skin to avoid skin contact. Coats, coveralls or aprons are recommended

X - SPECIAL PRECAUTIONS

Avoid contact with skin, eyes or clothing.
Do not store where exposed to moist conditions or near strong alkalis
Keep containers tightly closed
Wear all recommended protective equipment when handling

XI - ADDITIONAL INFORMATION

ALWAYS COMPLY WITH ALL APPLICABLE INTERNATIONAL, FEDERAL, STATE AND LOCAL REGULATIONS REGARDING THE TRANSPORTATION, STORAGE, USE AND DISPOSAL OF THIS CHEMICAL.

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