



## MATERIAL SAFETY DATA SHEET

Product Name: pH Minus  
Product id: 9081-AZ  
Revision date: 12/23/2008

### 1. Identification of the substance & the company

**Chemical name** Sodium bisulfate, anhydrous globular, technical  
**Synonym(s)** Sodium acid sulfate, Nitre cake, Sodium hydrogen sulfate  
**Chemical formula** NaHSO<sub>4</sub>  
**Molecular weight** 120  
**Type of product and use** pH adjustment  
**Supplier** NAVA Water Products  
95 MacCorkle Ave. SW, South Charleston, WV 25303, USA  
Tel: (304) 746-3000  
**Emergency Telephone** Chemtrec (800)424-9300

### 2. Composition / information on ingredients

Components CAS	Weight %	ACGIH-TLV Data	OSHA (PEL) Data
SODIUM BISULPHATE 7681-38-1	91.5-94.7	Not determined	Not determined
Sodium sulfate 7757-82-6	4.8-8.0	Not determined	Not determined
Water 7732-18-5	0.1-0.8	Not determined	Not determined

### 3. Hazards identification

**Emergency overview** *Off-white granular material, with the consistency of salt. Presents little or no hazard if spilled and no unusual hazard if involved in a fire. However, keep out of streams and ditches.*

**Potential environmental effects** Material in dry form is not hazardous to the environment. However it readily dissolves in water to form a weak acid solution. Therefore, keep out of streams and ditches.

**Potential Health Effects:**  
**- Eye Contact** Causes mild to severe irritation. May cause burns if not flushed with water.



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- Skin contact Prolonged exposure may cause moderate irritation. May cause burns if not flushed with water.
- Inhalation Inhalation of dust may irritate or burn nose, throat and lungs.
- Ingestion Small amounts (tablespoonful) swallowed are not likely to cause injury; however swallowing large amounts may irritate or burn digestive tract.
- Chronic effects/Carcinogenicity Not known to cause cancer.
- NFPA Ratings (Scale 0-4) Health = 1, Fire = 0, Reactivity = 0.
- HMIS Ratings (Scale 0-4) Health = 1, Fire = 0, Reactivity = 0.  
Protective Equipment - F

## 4. First-aid measures

- Eye contact** Holding the eyelids apart, flush eyes promptly with copious flowing water for at least 20 minutes. Get medical attention immediately.
- Skin contact** Remove contaminated clothing. Wash skin thoroughly with mild soap and plenty of water for at least 15 minutes. Wash clothing before re-use.  
Get medical attention if irritation occurs.
- Inhalation** In case of dust inhalation or breathing fumes released from heated material, remove person to fresh air.  
Keep him quiet and warm. Apply artificial respiration if necessary and get medical attention immediately.
- Ingestion** If swallowed, wash mouth thoroughly with plenty of water and give water to drink.  
Get medical attention immediately.  
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NOTE: Never give an unconscious person anything to drink. ....
- Note to physician** Treat symptomatically and supportively.



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### 5. Fire - fighting measures

Flash point	Not applicable
Flammable/Explosion limits	Not explosive/Not flammable
Suitable extinguishing media	Material is not combustible. Use extinguishing media appropriate to surrounding fire conditions. Because material will readily dissolve in water to form a weak acid solution, avoid water contact with material if possible.
Fire fighting procedure	Product readily dissolves in water to form a weak acid solution. If using water, wear acid protective equipment. No gases or toxic fumes are emitted from this reaction. However, if elevated temperatures (> 806°F) are reached, self-contained breathing apparatus should be worn.
Unusual fire and explosion hazards	Will decompose above 806°F (430°C) releasing poisonous and corrosive fumes of sulfur oxides.

### 6. Accidental release measures

Methods for cleaning up	Vacuum or shovel material and place in disposal container. Avoid excessive dust generation. Dilute residual material with ample supply of water and direct to sanitary sewer if Federal, State or Local regulations permit.
- Water	Readily dissolves in water to form a weak acid solution. If water is isolated or can be contained, neutralize with weak alkaline solution.

### 7. Handling and storage

Handling	Wear all recommended personal protective clothing when handling. Avoid contact with eyes. Wash thoroughly after handling. Minimize dust generation. Avoid breathing dust.
Storage	Material is hygroscopic and will readily absorb moisture. Keep containers tightly closed. DO NOT store where exposed to moist conditions. DO NOT store near strong alkalis.



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### 8. Exposure controls / personal protection

**Ventilation requirements** Ventilation must be sufficient to maintain airborne of nuisance dust below 15 mg/m<sup>3</sup> OSHA recommendation for Particulates Not Otherwise Regulated (PNOR).

**Personal protective equipment:**

- Respiratory protection NIOSH approved respirator
- Hand protection Rubber gloves
- Eye protection Safety glasses or goggles
- Skin and body protection Body covering clothes and boots

**Hygiene measures** Do not eat, smoke or drink where material is handled, processed or stored. Wash hands carefully before eating or smoking

### 9. Physical and chemical properties

**Appearance** Off white granules  
**Physical state** Dry (Anhydrous) crystalline solid, spherical shape beads  
**Odor** Fresh to pungent  
**Melting point/range** 350°F (177°C)  
**Solubility:**  
- Solubility in water 1080 g/l @ 68°F (20°C)  
**Bulk density** 80-85 lbs/ft<sup>3</sup> (loose)

### 10. Stability and reactivity

**Stability** Stable

**Materials to avoid** Avoid contact with strong alkaline material such as caustic. Dissolves readily in water to form a weak acid solution. DO NOT MIX with liquid chlorine bleach, ammonia cleansers or similar products.

**Conditions to avoid** Exposure to moisture

**Hazardous decomposition products** Sulfur oxides

**Hazardous polymerization** Will not occur

### 11. Toxicological information



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<b>Toxicity</b>	No human data are available for this product.
<b>Acute toxicity:</b>	
- Rat oral LD50	2800 mg/kg
- Dermal irritation (rabbit)	This material is neither corrosive nor destructive.
<b>Carcinogenicity</b>	Not classified by IARC, OSHA, EPA. Not included in NTP 11th Report on Carcinogens.

### 12. Ecological information

<b>Information on ecological effects</b>	This product readily dissolves in water to form a weak acid solution. A 0.05 percent or greater (by weight) solution of this product is likely to be acutely harmful to fish and other aquatic organisms.
<b>Environmental fate</b>	Material will decompose in soil. Studies show that there are no adverse effects of applying the main ingredient in this product (sodium bisulfate), directly to crops. However, do not apply excessive quantities to soil.

### 13. Disposal considerations

<b>Waste disposal</b>	If this product as supplied becomes a waste, it does not meet the criteria of a hazardous waste as defined under the Resource Conservation and Recovery Act (RCRA), 40CFR Part 261. Dispose of in accordance with local, State and Federal laws and regulations.
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### 14. Transportation information

<b>DOT</b>	Not regulated
<b>IMO</b>	Not regulated
<b>ICAO/IATA</b>	Not regulated



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### 15. Regulatory information

<b>USA</b>	Reported in the EPA TSCA Inventory
<b>Cercla/Sara - 302 ext. haz. substances</b>	This product contains no Hazardous Substances listed in 40 CFR Part 302.
<b>Sara 313</b>	Not listed
<b>Sara (311, 312) hazard class</b>	Hazard Class - Acute
<b>- New Jersey right-to-know list</b>	Listed Special hazardous Substances-Corrosive
<b>- California-Prop 65</b>	This product does not contain any ingredient known to the State of California to cause cancer or reproductive toxicity as listed under the State drinking Water and Toxic Enforcement Act of 1986.
<b>- Workplace Classification</b>	This product is classified as an Irritant by definition of OSHA Hazard Communication Standard (29CFR 1910.1200).
<b>Canada</b>	Listed in DSL Listed in WHMIS. Controlled Product Hazard Class D2B. This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.
<b>- Cepa</b>	All components of this product are acceptable for use under the provisions of CEPA
<b>EEC No.</b>	231-665-7
<b>Japanese METI</b>	1-83, 1-491, 1-1501
<b>Australia</b>	Listed in AICS
<b>China inventory</b>	Listed
<b>Korea</b>	Listed in ECL (KE- 31481)



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### 16. Other information

**This data sheet contains changes from the previous version in section(s)**  
None

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*In an event of discrepancy between the contents of this MSDS and the English version of it, the English version shall prevail.*

**End of safety data sheet**