



## MATERIAL SAFETY DATA SHEET

Product name                      **Alkalinity Booster**  
Product id                         2059  
Revision date                    10/08/2011  
Supersedes                      08/11/2006

Revision: 3

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

Chemical name                      Sodium Bicarbonate  
  
Synonym(s)                         Baking Soda, Bicarbonate of Soda  
  
Molecular weight                   84.02  
  
Type of product and use           For treatment and balancing of pools, spas and hot tubs  
  
Supplier                             NAVA Water Products  
   95 MacCorkle Ave. SW,  
   South Charleston, WV 25303,  
   USA  
   Tel: (304) 746-3000  
  
Emergency Telephone              Chemtrec (800)424-9300

### 2. Hazards identification

Emergency overview               *White granules. Product is non combustible. Reacts with acids to release carbon dioxide gas and heat.*  
*No significant health effects anticipated.*  
  
NFPA Ratings (Scale 0-4)           Health = 0, Fire = 0, Reactivity = 0.  
  
HMIS Ratings (Scale 0-4)           Health = 0, Fire = 0, Reactivity = 0

### 3. Composition / information on ingredients

Components	CAS No.	Weight %
Sodium bicarbonate	144-55-8	100



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### 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 and shoes unless stuck to skin. Rinse with large amounts of water and then water and soap for at least 10 minutes. Locate possible burn signs and refer for medical treatment if necessary. Get medical attention if irritation occurs and persists.
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. ***** NOTE: Never give an unconscious person anything to drink. *****
Note to physician	Material with low toxicity. Treat symptomatically and supportively.

### 5. Fire - fighting measures

Suitable extinguishing media	Material is not combustible. Use extinguishing media appropriate to surrounding fire conditions. Water, water fog, carbon dioxide (CO <sub>2</sub> ), dry chemical, foam
Fire fighting procedure	In closed stores, provide fire-fighters with self-contained breathing apparatus in positive pressure mode
Unusual fire and explosion hazards	When heated to decomposition, may release poisonous fumes of Na <sub>2</sub> O, CO <sub>2</sub> .

### 6. Accidental release measures

Methods for cleaning up	Sweep up and shovel into suitable containers for disposal. Wash spill site with water after material pickup is complete.
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### 7. Handling and storage

**Handling** Use air conveying/mechanical systems for bulk transfer to storage. For manual handling of bulk transfer use mechanical ventilation to remove airborne dust from railcar, ship or truck. Use approved respiratory protection when ventilation systems are not available. Selection of respirators is based on the dust cloud generated.

**Storage** Store in a dry, cool area away from incompatible materials (see "materials to avoid").

### 8. Exposure controls / personal protection

#### Exposure Limits :

Components	ACGIH-TLV Data	OSHA (PEL) Data
Sodium bicarbonate 144-55-8	Not determined	Not determined

**Ventilation requirements** Minimize eye and skin contact by using appropriate protective equipment. Use local exhaust as necessary, especially under dusty conditions.

#### Personal protective equipment:

- Respiratory protection NIOSH approved respirator
- Hand protection Protective gloves (when working with solutions)
- Eye protection Chemical safety goggles
- Skin and body protection Full body protective 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. Safety shower and eye bath should be provided.

### 9. Physical and chemical properties

Appearance White crystalline powder  
Odour None  
Boiling point/range Not applicable  
Melting point/range Not applicable (decomposes)  
Flash point Non-combustible  
Flammable/Explosion limits Not applicable  
Auto-ignition temperature Not applicable  
Vapour pressure Not available



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### 9. Physical and chemical properties

Evaporation rate (ether=1)	Not applicable
Vapor density	Not applicable
Solubility:	
- Solubility in water	8.6 g/100ml at 20°C
Bulk density	62 lb/Ft3
Specific gravity	2.20
pH	8.2 (1% solution)

### 10. Stability and reactivity

Stability	Stable
Materials to avoid	Reacts with acids to release carbon dioxide gas and heat. May yield free caustic in presence of lime dust (CaO) and moisture (i.e., water, perspiration). Dangerous reaction with monoammonium phosphate or a sodium-potassium alloy may occur.
Conditions to avoid	Contact with acids except under controlled conditions Heating above 65 °C
Hazardous decomposition products	None
Hazardous polymerization	Will not occur

### 11. Toxicological information

Acute toxicity:	
- Rat oral LD50	7.3 g/kg
- Rat inhalation LC50	4.74 mg/l
- Eye irritation (rabbit)	Not irritant
- Dermal irritation (rabbit)	Not irritant
Dermal sensitization	Not a sensitizer
Effects of overexposure:	Sodium bicarbonate is a GRAS (Generally Recognized As Safe) food ingredient. No significant toxicity is expected.
Target organ effects	None
Chronic toxicity	Administration of large doses of sodium bicarbonate to patients with renal insufficiency can produce systemic alkalosis.
Carcinogenicity	Not included in NTP 11th Report on Carcinogens Not classified by IARC, OSHA, EPA.



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### 12. Ecological information

#### Aquatic toxicity :

- LC50, Fish	7100 mg/l (Bluegill), 7700 mg/l (Rainbow trout)
- EC50, Crustacea	4100 mg/l (Daphnia)

**Persistence and degradability** Not expected to persist in the environment.

**Bioaccumulative potential** Not expected to bioaccumulate

### 13. Disposal considerations

**Waste disposal** Dispose in a safe manner in accordance with local/national regulations.

### 14. Transportation information

**DOT** Not regulated

### 15. Regulatory information

**USA** Reported in the EPA TSCA Inventory.

- Section 302 (EHS): Not listed

- SARA 313 Not listed

- SARA (311, 312) Not listed

**Canada** Listed in DSL

### 16. Other information

This data sheet contains changes from the previous version in section(s)

1, 5, 8, 9, 10, 11, 12, 13, 15



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**End of safety data sheet**