



## MATERIAL SAFETY DATA SHEET

**Product Name** Stain & Scale Remover  
**Product id** 8675-AZ  
**Revision date** 17/09/2007

**Revision:** 1

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

**Chemical name** This product is a formulation. The active Ingredients calculated as Tetrasodium Ethylenediaminetetraacetate 39%

**Type of product and use** Chelating agent

**Supplier** NAVA Water Products  
95 MacCorkle Ave. SW, South Charleston, WV 25303 , USA  
Tel: (304) 746-3000

**Emergency Telephone** Chemtrec (800)424-9300  
Medical 1-800-420-9236

### 2. Composition / information on ingredients

Components CAS	Weight %	ACGIH-TLV Data	OSHA (PEL) Data
Tetrasodium salt of Ethylenediaminetetraacetic Acid 64-02-8	37	Not determined	Not determined
Disodium Ethylenediaminediacetate 38011-25-5	1	Not determined	Not determined
Trisodium Ethylenediaminetriacetate 19019-43-3	1	Not determined	Not determined
Trisodium Nitrilotriacetate 5064-31-3	1	Not determined	Not determined
Sodium Hydroxide 1310-73-2	1	2 mg/m <sup>3</sup> ceiling	2 mg/m <sup>3</sup> ceiling
Sodium Glycolate 2836-32-0	3	Not determined	Not determined
Water 7732-18-5	56	Not determined	Not determined



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### 3. Hazards identification

**Emergency overview** *Light yellow liquid with Amine odor  
Causes severe burns to eyes, mouth and throat  
Irritant to skin  
May cause lungs damage*

**Potential Health Effects:**

**- Eye Contact** May cause severe irritation with corneal injury which may result in permanent impairment of vision, even blindness. Chemical burns may occur. Mist may cause eye irritation

**- Skin contact** Prolonged contact may cause slight skin irritation with local redness. Repeated contact may cause skin burns. Symptoms may include pain, severe local redness, swelling and tissue damage. Mist may cause skin irritation.

**- Ingestion** May result in gastrointestinal irritation or ulceration or in burns of the mouth and throat. Aspiration into the lungs may occur during ingestion or vomiting, causing tissue damage or lung injury

**NFPA Ratings (Scale 0-4)** Health = 3, Fire = 0, Reactivity = 0

### 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 and persists.

**Inhalation** In case of inhalation, 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.  
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<b>Note to physician</b>	Corrosive. No specific antidote. In case of ingestion DO NOT induce vomiting. Treat symptomatically and supportively.
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### 5. Fire - fighting measures

<b>Note:</b>	The material will not burn until the water has evaporated. Residue can burn
<b>Flash point</b>	Not applicable
<b>Flammable/Explosion limits</b>	Not applicable
<b>Auto-ignition temperature</b>	Not applicable
<b>Suitable extinguishing media</b>	Carbon dioxide, foam, Water spray and dry chemical powder
<b>Fire fighting procedure</b>	In closed stores, provide fire-fighters with self-contained breathing apparatus in positive pressure mode
<b>Unusual fire and explosion hazards</b>	None known

### 6. Accidental release measures

<b>Personal precautions</b>	Evacuate area. Keep upwind. Wear appropriate safety clothing and eye/face protection (see Section 8)
<b>Methods for cleaning up</b>	Absorb or contain liquid with sand, earth or spill control material. Shovel up and place in labelled, sealable container for subsequent safe disposal.
<b>Environmental precautions</b>	Prevent from entering into soil, ditches, sewers waterways and/or groundwater.

### 7. Handling and storage

<b>Handling</b>	Keep containers tightly closed. Avoid eye contact Avoid breathing mist and any other bodily contact. Use only in area provided with appropriate exhaust ventilation.
<b>Storage</b>	Do not store in: Zinc, Aluminum, Carbon steel, Copper, Copper alloys, Galvanized containers, Nickel. Storage temperature 0-120°F (-17.8-48.9°C)



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### 8. Exposure controls / personal protection

**Ventilation requirements** Good general ventilation.

**Personal protective equipment:**

- **Respiratory protection** Approved respirator
- **Hand protection** Protective gloves
- **Eye protection** Chemical safety goggles
- **Skin and body protection** Body covering clothes and boots

**Hygiene measures** Safety shower and eye bath should be provided. 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** Light yellow liquid  
**Freezing point/range** -25°C (-13°F)  
**Boiling point/range** 106°C (223 °F)  
**Vapour pressure** Water  
**Vapor density** Same as water  
**Solubility:**  
- **Solubility in water** Soluble  
**Specific gravity** 1.31(25°C)  
**Partition coefficient (n-octanol/water)** Log Pow - <3

### 10. Stability and reactivity

**Stability** Stable under recommended storage conditions.

**Materials to avoid** Strong oxidizers, Zinc, Aluminum, Carbon steel, Copper, Copper alloys, Galvanized containers, Nickel. Flammable Hydrogen may be generated from contact with metals such as Aluminum

**Decomposition** Decomposes when heated or dampened, releasing oxygen and heat

**Conditions to avoid** High temperatures

**Hazardous decomposition products** NOx, CO, CO2, Ammonia



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Hazardous polymerization Will not occur

### 11. Toxicological information

**Acute toxicity:**

- Rat oral LD50 3030 mg/kg (male)  
- Rabbit dermal LD50 > 5000 mg/kg

**Mutagenicity**

Minimal effects reported are likely due to trace metal deficiencies resulting from chelation by EDTA

**Carcinogenicity**

Not included in NTP 11th Report on Carcinogens  
IARC Group 2B (animal sufficient evidence, human limited evidence)  
Listed as a potential carcinogen for hazard communication purposes under OSHA standard 20 CFR 1910.1200

**Teratogenicity**

Birth defects in laboratory animals were observed at doses that were toxic to the mother. These effects are likely associated with zinc deficiency due to chelation

### 12. Ecological information

**Aquatic toxicity :**

- LC50, fish >100 mg/l (Fathead minnow)  
1030 mg/l (Bluegill)

**Biodegradation**

Not biodegradable under aerobic conditions (ThOD<2.5%)

**Bioaccumulative potential**

BCF<100

### 13. Disposal considerations

**Waste disposal**

Observe all federal, state and local environmental regulations when disposing of this material  
Do not dump into sewers, on the ground, or into any body of water

### 14. Transportation information

DOT Not regulated



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### 15. Regulatory information

**USA** All the ingredients in this preparation are listed in the EPA TSCA Inventory.

**- Pennsylvania right to know list** Some of the ingredients are listed

**Canada** CPR statement: this product has been classified in accordance with the hazard criteria of the Canadian controlled products regulations (CPR) and the MSDS contains all the information required by the CPR

**- WHMIS hazard class**  
D2A very toxic materials  
D2B toxic materials  
E corrosive material

### 16. Other information

Although the information and recommendations set forth herein (hereinafter "information") are presented in good faith and believed to be correct as of the date hereof, NAVA Water Products makes no representations as to the completeness or accuracy thereof.

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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.*

**Prepared for** Clearon Corporation  
95 MacCorkle Ave. SW,  
South Charleston, WV 25303 , USA  
Tel: (304) 746-3000

**End of safety data sheet**