

# MATERIAL SAFETY DATA SHEET

Total Solutions  
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GENERAL INFORMATION NUMBER: (414) 354-6417  
CHEMTREC: (800) 424-9300

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## I - Product Identification

### Boiler Complete Treat "S"

PRODUCT CODE: 1960

CHEMICAL FORMULATION: Steam boiler treatment.

NFPA HAZARD IDENTIFICATION SYSTEM: HEALTH: 2

FLAMMABILITY: 0

REACTIVITY: 0

HAZARD RATING: 4 - Extreme; 3 - High; 2 - Moderate; 1 - Slight; 0 - Insignificant

## II - Hazardous Ingredients

Values reported as TWA unless noted.

| SUBSTANCE            | APPROX<br>% | OSHA<br>PEL           | ACGIH<br>TLV          | EPA 40 CFR: |     |     | CAS #     |
|----------------------|-------------|-----------------------|-----------------------|-------------|-----|-----|-----------|
|                      |             |                       |                       | 302         | 355 | 372 |           |
| Potassium hydroxide  | 1.00-5.00   | 2 mg/m <sup>3</sup> C | 2 mg/m <sup>3</sup> C | Y           | N   | N   | 1310-58-3 |
| Diethylethanolamine  | 1.00-5.00   | 10 ppm (skin)         | 10 ppm (skin)         | N           | N   | N   | 100-37-8  |
| Sodium metabisulfite | 1.00-5.00   | 5 mg/m <sup>3</sup>   | 5 mg/m <sup>3</sup>   | Y           | N   | N   | 7681-57-4 |

Key: PEL: Permissible Exposure Limit TLV: Threshold Limit Value C: Ceiling level STEL: Short Term Exposure Limit  
N/A: Not Applicable N/D: Not Determined N/E: Not Established Y: Yes N: No  
302: CERCLA List of Hazardous Substances and Reportable Quantities (40 CFR 302.4).  
355: SARA TITLE III / List of Extremely Hazardous Substances for Emergency Planning and Notification (40 CFR 355).  
372: SARA TITLE III / List of Toxic Chemicals subject to Release Reporting (Community Right to Know) (40 CFR 372).

## III - Physical Data

BOILING POINT (°F): N/D

SPECIFIC GRAVITY (WATER = 1): 1.12

VAPOR PRESSURE (mm Hg): N/D

VOC CONTENT (% by weight): 10.0

VAPOR DENSITY (AIR = 1): N/D

EVAPORATION RATE (WATER = 1): N/D

SOLUBILITY IN WATER: Soluble

pH: 13.00-14.00

APPEARANCE AND ODOR: Clear, brown liquid; mild slightly ammonia-like odor.

## IV - Fire and Explosion Hazard Data

FLASH POINT (°F): None (TEST METHOD): Closed cup

FLAMMABLE LIMITS IN AIR (VOLUME %)

UPPER: N/D

LOWER: N/D

EXTINGUISHING MEDIA: Water, foam, carbon dioxide, dry chemical.

SPECIAL FIRE FIGHTING PROCEDURES: Cool fire exposed containers with water fog. Firefighters should be equipped with full protective gear including self-contained breathing apparatus.

UNUSUAL FIRE AND EXPLOSION HAZARD: None

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**V - Reactivity Data**

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**STABILITY:** Stable

**INCOMPATIBILITY:** Acidic materials.

**CONDITIONS TO AVOID:** None.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Thermal decomposition may produce oxides of carbon.

**HAZARDOUS POLYMERIZATION:** Will not occur.

**CONDITIONS TO AVOID:** None

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**VI - Health Hazard Data**

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**ROUTES OF ENTRY INHALATION: X EYE CONTACT: X SKIN CONTACT: X INGESTION: X**

**INGREDIENTS THAT ARE CONSIDERED BY OSHA, NTP, IARC TO BE SUSPECTED HUMAN CARCINOGENS:** None.

**EFFECTS OF OVEREXPOSURE**

**IF IN EYES:** Severe irritation, burns and destruction of tissue.

**IF ON SKIN:** Moderate to severe irritation, defatting, redness, burns and destruction of tissue, depending on length of exposure.

**IF SWALLOWED:** Gastrointestinal irritation, cramps, burns to mucous membranes. Harmful or fatal if swallowed.

**IF INHALED:** Severe irritation of respiratory tract, pulmonary edema, laryngeal spasms.

**EMERGENCY AND FIRST AID PROCEDURES**

**IF IN EYES:** Flush eyes and under eyelids with plenty of cool water for at least 15 minutes. Obtain immediate medical attention, and continue flushing until assistance arrives.

**IF ON SKIN:** Flush area with water while removing contaminated clothing. Continue flushing for at least 15 minutes. Launder clothing separately before re-use. If irritation persists, obtain medical attention.

**IF SWALLOWED:** Contact physician or poison control center immediately. Rinse mouth with water and give affected person 1 to 2 glasses of water. Do not induce vomiting unless instructed by a physician of poison control center. Never give anything to an unconscious person.

**IF INHALED:** Remove person to fresh air. If irritation persists, obtain medical attention.

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**VII - Spill or Leak Protection**

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**STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:** Ventilate area and contain spill. Soak up spilled material with inert absorbent material and place in a properly labeled closed container.

**WASTE DISPOSAL METHOD:** Consult local environmental authorities.

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**VIII - Special Protection Information**

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**RESPIRATORY PROTECTION:** Use with adequate ventilation. If recommended Exposure Limits are exceeded wear a NIOSH approved respirator, following manufacturer's recommendations.

**VENTILATION**

**LOCAL:** Recommended

**MECHANICAL:** Not required

**PROTECTIVE GLOVES:** Chemical resistant.

**EYE PROTECTION:** Chemical goggles or face shield.

**OTHER PROTECTIVE EQUIPMENT:** Protective clothing and eye wash station.

**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:** Store in a cool, dry place away from acidic material. Keep container tightly closed when not in use. Always add this product to water, never add water to this product.

**OTHER PRECAUTIONS:** Keep out of reach of children.

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**IX - Transportation Information (ground transportation only)**

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**DOT ID NUMBER:** UN1760

**DOT PROPER SHIPPING NAME:** Corrosive liquids, n.o.s. (potassium hydroxide)

**DOT CLASS:** 8

**DOT PACKING GROUP:** III

The shipping information listed above applies only to non-bulk (< 119 gallons) containers of this product. This product may have more than one proper shipping name depending on packaging, product properties, & mode of shipment. If any alteration of packaging, product, or mode of transportation is further intended, different shipping names and labeling may apply.

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