

MATERIAL SAFETY DATA SHEET

Total Solutions
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GENERAL INFORMATION NUMBER: (414) 354-6417
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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 %	OSHA PEL	ACGIH TLV	EPA 40 CFR:			CAS #
				302	355	372	
Potassium Hydroxide	1.00-5.00	2 mg/m ³ C	2 mg/m ³ 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 Sulfite	1.00-5.00	N/E	N/E	N	N	N	7757-83-7
Sodium Bisulfite	1.00-5.00	5 mg/m ³	5 mg/m ³	Y	N	N	7631-90-5

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): N/D

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; characteristic 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

V - Reactivity Data

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

VI - Health Hazard Data

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.

VII - Spill or Leak Protection

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.

VIII - Special Protection Information

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.

IX - Transportation Information (ground transportation only)

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

DOT CLASS: 8

DOT ID NUMBER: UN1760

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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