SAFETY DATA SHEET
BT-4340

1. IDENTIFICATION

Product Name: BT-4340

Identified Uses: Boiler Water Treatment

Supplier: Clear Water Technologies, LLC
13560 Colombard Court
Fontana, CA 92337
United States

Contact Information: 951-681-9697
info@clearwatertech.com

24-Hour Emergency Telephone: INFOTRAC: 1-800-535-5053
International: 1-352-323-3500

2. HAZARDS IDENTIFICATION

This product is classified as hazardous under OSHA regulations (29CFR 1910.1200) (Hazcom 2012)

Appearance: Clear, dark amber liquid

Odor: Ammonia-like.

Pictogram(s):

Signal Word: DANGER

GHS Classification: Skin Corrosion/Irritation Category 1
Eye Damage Irritation Category 1

Hazard Statement: Causes severe skin burns and serious eye damage.

PRECAUTIONARY STATEMENTS

Prevention: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.

Do not breathe dust or mist. Wash thoroughly after handing. Wear protective gloves, protective clothing, eye protection, and face protection. Do not eat, drink or smoke when using this product.

Response: If swallowed: Immediately call a poison center/doctor. Rinse mouth. Do NOT induce vomiting.

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

If inhaled: Remove person to fresh air and keep comfortable for breathing.

If in eyes: Rinse cautiously for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Wash contaminated clothing before reuse. If exposed, immediately call a poison center/doctor. For specific treatment see Section 4 of the SDS.

Storage: Store locked up.

Disposal: Dispose of contents/container in accordance with local regulations.

Hazard(s) not otherwise classified (HNOC) None known.

3. COMPOSTION / INFORMATION ON INGREDIENTS

Chemicals related to the hazard classification for this product:

Chemical	Common Name and Synonyms	CAS Number	Percent (%)
Sodium hydroxide	Caustic soda	1310-73-2	5.0 – 15.0
Sodium sulfite	Sulfurous acid, disodium salt	7757-83-7	5.0 – 10.0
Diethylethanolamine	DEEA/DEAE	100-37-8	< 5.0
Sodium tripolyphosphate	STPP	7758-29-4	< 5.0
1-hydroxy ethylidene-1,1-diphosphonic acid	HEDP	2809-21-4	< 1.0

Confidential business information has been removed without affecting the overall safety information found in the safety data sheet (SDS). Remaining components are proprietary, non-hazardous, and/or present at amounts below reportable limits.

4. FIRST-AID MEASURES

Inhalation: Move to fresh air. If breathing is difficult, give oxygen. Perform artificial respiration if breathing has stopped.

Skin Contact: Immediately flush with plenty of water for at least 15 minutes. Remove any contaminated clothing.

Eye Contact: Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention.

Ingestion: Do NOT induce vomiting unless instructed to by a physician. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately.

Most important symptoms and effects, both acute and delayed: Corrosive. Exposure to liquid product may cause moderate to severe irritation to skin, and possible burns, and severe irritation to eyes, and possibly burns or eye damage. Symptoms of exposure may include redness, itching, swelling, blisters or pain.

Indication of any immediate medical attention and special treatment needed:	Provide general supportive measures and treat symptomatically. Symptoms may be delayed.
General Information:	Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media:	Use water-spray, dry chemical, or carbon dioxide. Tailor extinguishing media to surrounding fire.
Unsuitable extinguishing media:	No data available.
Specific hazards arising from the chemical:	None known. The product is not flammable, combustible, or explosive. Consider the hazards or surrounding materials.
Special protective equipment and precautions for firefighters:	No data available.
Firefighting equipment/instructions:	None known.
Specific methods:	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards:	The product is not flammable, combustible, or explosive.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures:	Keep unnecessary people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate PPE. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up:	Stop the flow of material, if possible, without risk. Dike the spilled material, where possible. Soak up spills with absorbent inert materials, dry sand or earth and place into containers for hazardous waste. Following product recovery flush area with water. Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.
Environmental Precautions:	Avoid discharge into drain, municipal sewers, water courses or onto ground.

7. HANDLING AND STORAGE

Precautions for safe handling:	Use proper personal protective equipment when handling. Do not eat, drink, or smoke in work areas. Wash thoroughly after handling. Rinse container before disposal.
Conditions for safe storage and incompatible materials:	Store locked up. Store in original and tightly closed container in a cool, dry, and well-ventilated area. Store away from incompatible materials (see Section 10 of the SDS). The recommended storage temperature is above 32°F, preferably at room temperature (70°F). Protect container against physical damage, direct sunlight, and freezing.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational exposure limits: No value assigned for the overall material.

Sodium hydroxide (CAS# 1310-73-2) – 2 mg/m^3 (PEL, OSHA)

Diethylethanolamine (CAS# 100-37-8) – 50 mg/m^3 (PEL, OSHA); 100 ppm (NIOSH, IDLH)

Biological limit values: No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls: Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station and safety shower.

Individual protection measures, such as personal protective equipment

The following are recommendations for Personnel Protective Equipment (PPE). The employer/user of this product must perform a Hazard Assessment of the workplace according to OSHA regulations 29 CFR 1910.132 to determine the appropriate PPE for use while performing any task involving potential exposure to this product.

Eye/face protection: Wear safety goggles and face shield in case of splash risk. Wear appropriate safety goggles.

Skin protection: Wear appropriate chemical resistant gloves. Wear appropriate chemical resistant clothing.

Respiratory protection: Use of respirator protection is not generally required. However, if exposure is above the stated limits or ventilation is inadequate, use a chemical respirator with organic vapor cartridge and full facepiece.

Thermal protection: Wear appropriate thermal protective clothing when necessary.

General hygiene considerations: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Do NOT eat or smoke in the work area.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Clear, amber liquid.

Odor: Slightly musty.

Odor threshold: Not available.

pH: 13.5

Melting point / freezing point: 32°F (0°C) estimated.

Initial boiling point and boiling range: 212°F (100°C) estimated.

Flash point:	Not available.
Evaporation rate:	Not available.
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	Flammability limit – lower (%): Not available Flammability limit – upper (%): Not available Explosive limit – lower (%): Not available Explosive limit – upper (%): Not available
Vapor pressure:	Not available.
Vapor density:	Not available.
Relative density:	1.18 (water = 1.0)
Solubility(ies):	Solubility in water: Soluble. Solubility (other): Not available.
Partition coefficient (n-octanol/water):	Not available.
Auto-ignition temperature:	Not available.
Decomposition temperature:	Not available.
Viscosity:	Not available.
Density:	9.85 lbs./gal
Explosive properties:	Not explosive.
Oxidizing properties:	Not oxidizing.

10. STABILITY AND REACTIVITY

Reactivity:	The product is stable and non-reactive under normal conditions of use, storage, and transport.
Chemical stability:	Material is stable under normal conditions.
Possibility of hazardous reactions:	Material is stable under normal conditions.
Conditions to avoid:	No data available.
Incompatible materials:	Strong oxidizing agents. Strong acids.
Hazardous decomposition products:	Oxides of phosphines, carbon monoxide, carbon dioxide, nitrogen oxides.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation:	No data available.
Skin contact:	No data available.
Eye contact:	No data available.
Ingestion:	No data available.
Symptoms related to the physical, chemical, and toxicological characteristics:	Corrosive. Exposure to liquid product may cause moderate to severe irritation to skin, and possible burns, and severe irritation to eyes, and possibly burns or eye damage. Symptoms of exposure may include redness, itching, swelling, blisters or pain.
Information on toxicological effects	No toxicological information is available on the overall finished product.
Acute toxicity:	Calculated ATE values for this mixture are: ATE oral = 16,100 mg/kg ATE dermal = 14,316 mg/kg ATE inhalation = 12.9 mg/L
Skin corrosion / irritation:	Corrosive. May cause severe skin burns or irritation.
Serious eye damage / eye irritation:	Corrosive. May cause serious eye irritation or permanent eye damage.
Respiratory or skin sensitization:	No information available.
Germ call mutagenicity:	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity

IARC Monographs. Overall Evaluation of Carcinogenicity:	Not listed.
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053):	Not listed.
US. National Toxicology Program (NTP) Report on Carcinogens:	Not listed.

Reproductive toxicity:	Not classified.
Specific target organ toxicity – single exposure:	Not classified.
Specific target organ toxicity – repeated exposure:	Not classified.
Aspiration hazard:	Not classified.

12. ECOLOGICAL INFORMATION

Ecotoxicity:	The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

	Sodium hydroxide (CAS# 1310-73-2) – EC50, Crustacea, Water flea (Ceriodaphnia dubia) 34.59 – 47.13 mg/L, 48 hours. LC50, Fish, Western mosquito (Gambusia affinis), 125 mg/L, 96 hours.
Persistence and degradability:	No data available.
Bioaccumulation potential:	No data available.
Mobility in soil:	No data available.
Other adverse effects:	No other adverse environmental effects are expected from this product.

13. DISPOSAL CONSIDERATIONS

Disposal instructions:	Dispose of contents/container in accordance with local/regional/national/international regulations.
Local disposal regulations:	Dispose in accordance with all applicable regulations.
Waste from residues / unused products:	Dispose of product in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner.
Contaminated packaging:	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. TRANSPORTATION INFORMATION

DOT Information:

UN Number	UN 3266
UN Proper shipping name:	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S., (SODIUM HYDROXIDE)
Transportation hazards class(es):	8 - CORROSIVE
Transport Label(s):	
Packing group:	II
Marine pollutant:	Not classified.

Transport information on packaging may be different from that listed.

15. REGULATORY INFORMATION

US federal regulations:	This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Toxic substance control act (TSCA)

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D):	Not regulated.
CERCLA Hazardous Substance List (40 CFR 302.4):	Sodium Hydroxide (RQ: 1,000 lbs.)
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053):	Not Listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 304 Emergency release notification:	Not Listed.
SARA 302 Extremely hazardous substance:	Not Listed.
SARA 311/312 Hazardous chemical:	Yes
Classified hazard categories:	Corrosive.
SARA 313 (TRI reporting):	Not Listed.

Other federal regulations

Clean Water Act Section 113 Hazardous Substances (40 CFR 117.3)	Not Listed.
Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):	Not Listed.

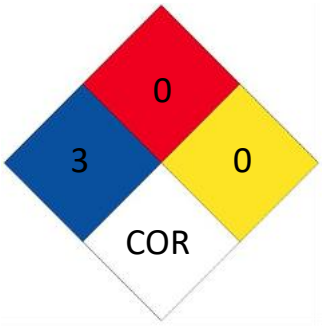
US state regulations

California Proposition 65	Not Listed.
New Jersey Worker and Community Right-to-Know Act	Not Listed.
Massachusetts RTK – Substance List	Not Listed.
Minnesota RTK	Sodium hydroxide. 2-Diethylaminoethanol-skin
Pennsylvania RTK – Hazardous Substances	Sodium hydroxide. Triphosphoric acid, pentasodium salt. Ethanol, 2-(diethylamino)
Rhode Island RTK	Sodium hydroxide. Diethylaminoethanol - skin

16. OTHER INFORMATION

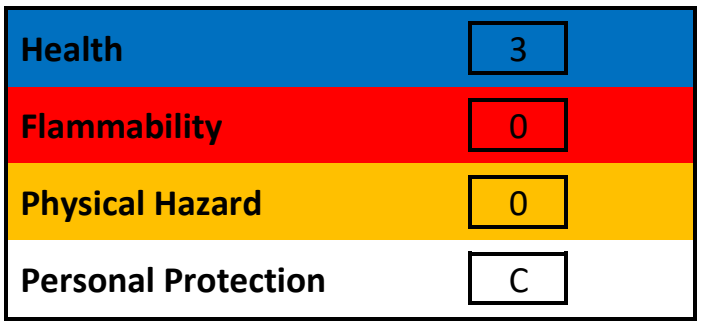
National Fire Protection Association (NFPA) ratings:

Health: 3
Flammability: 0
Instability: 0
Other: COR



Hazardous Material Information System (HMIS) ratings:

Health: 3
Flammability: 0
Physical Hazard: 0
Personal Protection: C



Revision Comments: Updated ingredients – changed potassium hydroxide to sodium hydroxide

Revision date: 04-25-2025

Revision #: 4

Disclaimer

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability, or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.