

Product BT-4340
 Revision Date 05/29/2015
 Revision 1




Safety Data Sheet

SECTION 1: IDENTIFICATION

Product Name	BT-4340
Identifier Uses	Boiler Treatment.
Supplier	Clear Water Technologies, LLC 13560 Colombard Court Fontana, California 92337 Tel: 844-429-8324
Contact Person	info@clearwatertech.com
Emergency Telephone	24-HOUR EMERGENCY TELEPHONE: INFOTRAC: 1-800-535-5053 INTERNATIONAL#: 1-352-323-3500

SECTION 2: HAZARDS IDENTIFICATION

Appearance	Clear, amber liquid.
Color	Clear, amber liquid.
Odor	Ammonia-like.
Pictogram(s)	
Signal Word	Danger
Hazard Statements	H303 May be harmful if swallowed H314 Causes severe skin burns and eye damage
Precautionary Statements	P280 Wear protective gloves/ protective clothing/eye protection/face protection. P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. P303 + P361 + P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310 Immediately call a POISON CENTER or doctor/physician
Contains	tetrasodium pyrophosphate 2-diethylaminoethanol, N,N-diethylethanolamine potassium hydroxide etidronic acid phosphonic acid
GHS Classification	
Physical and Chemical Hazards	Not classified
Human Health	Acute Tox 5 - H303, Skin Corr. 1A - H314
Environment	Not classified
OSHA Regulatory Status	This product is Hazardous under the OSHA Hazard communication Standard.
Inhalation	Inhalation of vapors or fumes may cause moderate to severe irritation to mucous membranes and respiratory tract. Avoid contact.
Ingestion	Exposure to liquid product may cause moderate to severe irritation to inner linings of mouth, esophagus and gastrointestinal tract, and possible burns. Do NOT ingest.
Skin contact	Exposure to liquid product may cause moderate to severe irritation to skin, and possible burns. Symptoms of exposure may include redness, itching, swelling or pain. Effects of contact are typically an irritant dermatitis. Avoid contact.
Eye contact	Exposure to liquid product may cause severe irritation to eyes, and possibly burns or eye

Routes of Exposure	damage. Symptoms of exposure may include redness, itching, swelling, tearing or pain. Effects of contact may be delayed. Avoid contact. No Information available.
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SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

Composition Comments	Confidential business information has been removed without affecting the overall safety information on the safety data sheet.
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SECTION 4: FIRST AID MEASURES

Description of first aid measures

General Information	General first aid, rest, warmth and fresh air.
Inhalation	If this product is inhaled and symptoms occur, move the exposed person to fresh air promptly. Seek medical attention if symptoms persist.
Ingestion	If this product is ingested, drink small amounts of water and seek medical attention promptly. Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.
Skin contact	If this product contacts the skin, immediately flush the affected area with plenty of clean running water for at least fifteen (15) minutes. If the product penetrates the clothing, promptly remove the contaminated clothing or shoes, and flush the affected area as described. Seek medical attention if irritation persists.
Eye contact	If the product contacts the eyes, immediately flush eyes with plenty of clean running water for at least fifteen (15) minutes, lifting the upper and lower eyelids occasionally. Remove contact lenses if worn. Seek medical attention if irritation persists.

Most important symptoms and effects, both acute and delayed

General Information	
Inhalation	Inhalation of vapors or fumes may cause moderate to severe irritation to mucous membranes and respiratory tract. Avoid contact.
Ingestion	Exposure to liquid product may cause moderate to severe irritation to inner linings of mouth, esophagus and gastrointestinal tract, and possible burns. Do NOT ingest.
Skin contact	Exposure to liquid product may cause moderate to severe irritation to skin, and possible burns. Symptoms of exposure may include redness, itching, swelling or pain. Effects of contact are typically an irritant dermatitis. Avoid contact.
Eye contact	Exposure to liquid product may cause severe irritation to eyes, and possibly burns or eye damage. Symptoms of exposure may include redness, itching, swelling, tearing or pain. Effects of contact may be delayed. Avoid contact.
Routes of Exposure	No Information available.

Most important symptoms and effects, both acute and delayed

Notes to the Physician	Provide general supportive measures and treat symptomatically.
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SECTION 5: FIREFIGHTING MEASURES

Auto Ignition Temperature (°C)	No Information available.
Flammability Limit-Lower (%)	No Information available.
Flammability Limit-Upper (%)	No Information available.
Flashpoint	No Information available.
Extinguishing Media	Use fire-extinguishing media appropriate for surrounding materials. Water, foam, dry chemical or carbon dioxide.
Hazardous combustion products	Combustion leads to the release of ammonia, oxides of nitrogen and oxides of carbon.
Unusual Fire & Explosion Hazards	Irritating vapors may be emitted during a fire.
Special Fire Fighting Procedures	Use water to cool containers exposed to a fire.
Protective equipment for fire-fighters	Fire fighters should wear full protective equipment, and have self-contained breathing apparatus available.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions	Use proper personal protection (refer to Section 8).
Environmental Precautions	Run off from fire control or dilution water may cause pollution. Keep out of drains, municipal sewers, open bodies of water and water course.

Spill Clean Up Methods

Safely stop source of spill. Clean up spills immediately. Wear protective clothing, goggles and respirator if ventilation is not adequate. Restrict non-essential personnel from the area and dike spill area. Soak up material with sand or other absorbent and place into chemical waste container for disposal according to local, state or federal regulations at an approved chemical waste reprocessing facility.

SECTION 7: HANDLING AND STORAGE**Handling**

Use proper personal protection when handling (refer to Section 8). Use under well-ventilated conditions. Avoid contact with eyes, skin and clothing. Avoid breathing vapors and mists. Avoid prolonged or repeated contact. Do NOT ingest. Wash thoroughly after handling. Rinse container before disposal.

**Usage Description
Storage Precautions**

Use only according to directions.

The recommended shelf life is two (2) years. It is recommended that products be retested if stored for more than two (2) years. Under ideal storage conditions, the shelf life is almost indefinite. The recommended storage temperature is above 32°F, preferably at room temperature (70°F).

Specific End Use(s)

The identified uses are in section 1 of this Safety Data Sheet.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION**Protective Equipment**

Component	STD	TWA (8 Hrs)		STEL (15mins)		Notes
2-diethylaminoethanol N,N- diethylethanolamine	OSHA	10ppm	50mg/m3			

Ingredient Comments

OSHA

**Process Conditions
Engineering Measures**

Provide eyewash, quick drench.

Provide adequate ventilation, including appropriate local extraction, to ensure that the defined occupational exposure limit is not exceeded.

Respiratory Equipment

Use of respirator protection is not generally required. However, if exposure is above the stated limits or ventilation is inadequate, use a NIOSH approved acid gas/organic vapor respirator to reduce potential for inhalation exposure. When using respirator cartridges, they must be changed frequently to assure breakthrough exposure does not occur.

**Hand Protection
Eye Protection**

Use rubber or plastic gloves to minimize skin contact.

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Hygiene Measures

DO NOT SMOKE IN WORK AREA! Wash hands at the end of each work shift and before eating, smoking and using the toilet. Wash promptly if skin becomes wet or contaminated. Promptly remove any clothing that becomes contaminated. When using do not eat, drink or smoke.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**Information on Basic Physical and Chemical Properties**

Appearance	Clear, amber liquid.
Color	Clear, amber liquid.
Odor	Ammonia-like.
Odor Threshold -Lower	No Information available.
Odor Threshold -Upper	No Information available.

pH-Value, Conc. Solution	13.5
Melting point	32.0 °F
Initial boiling point and boiling range	210.0 °F
Flashpoint	No Information available.
Evaporation rate	No Information available.
Flammability State	No Information available.
Flammability Limit-Lower (%)	No Information available.
Flammability Limit-Upper (%)	No Information available.
Vapor pressure	No Information available.
Vapor Density (air=1)	No Information available.
Relative density	1.18 @ 68.0 °F
Bulk Density	No Information available.
Solubility	Completely soluble in water.
Decomposition temperature	No Information available.
Partition coefficient; n-octanol/water	No Information available.
Auto Ignition Temperature (°C)	No Information available.
Viscosity	No Information available.
Explosive Properties	No information available.
Oxidizing Properties	No Information available.
Molecular Weight	No Information available.
Volatile Organic Compound	No Information available.

SECTION 10: STABILITY AND REACTIVITY

Reactivity	Reactions may occur with ammonia, oxides of nitrogen and oxides of carbon.
Stability	This product is stable at ambient temperatures and atmospheric pressures.
Hazardous Polymerization	Hazardous polymerization is not expected to occur under normal temperatures and pressures..
Hazardous Decomposition Products	Ammonia, oxides of nitrogen and oxides of carbon.
Conditions to Avoid	Avoid contact with ammonia, oxides of nitrogen and oxides of carbon.
Materials to Avoid	Keep away from ammonia, oxides of nitrogen and oxides of carbon.

SECTION 11: TOXICOLOGICAL INFORMATION

Toxicological Information	No toxicological information for the overall finished product.
Acute Toxicity (Oral LD50)	>2742.00mg/kg Rat
Acute Toxicity (Dermal LD50)	~2244.00mg/kg Rabbit
Acute Toxicity (Inhalation LC50)	No Information available.
Skin Corrosion/Irritation	No Information available.

Respiratory Sensitization	No Information available.
Skin Sensitization	No Information available.
Reproductive Toxicity:	No Information available.
Germ Cell Mutagenicity:	
Genotoxicity - In Vitro	
Genotoxicity - In Vivo	
Carcinogenicity:	
Carcinogenicity	No Information available.
NTP - Carcinogenicity	The product and its components are not listed.
OSHA - Carcinogenicity	The product and its components are not listed.
IARC Carcinogenicity	The product and its components are not listed.
Specific Target Organ Toxicity - Single Exposure:	
STOT - Single Exposure	No Information available.
Specific Target Organ Toxicity - Repeated Exposure:	
STOT - Repeated Exposure	No Information available.

Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
sodium sulphite	820mg/kg Mouse		
potassium hydroxide	284mg/kg Rat		

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity	No Information available.
Acute Toxicity - Fish	LC50 96 Hours >5485.00ppm Onchorhynchus mykiss (Rainbow Trout)
Acute Toxicity - Aquatic Invertebrates	LC50 48 Hours >6750.00ppm Daphnia magna
Acute Toxicity - Aquatic Plants	EC50 72 Hours > 1970.00ppm
Degradability	No information available.
Bioaccumulative Potential	
Mobility	Completely soluble in water.
Results of PBT and vPvB Assessment	The product does not contain any PBT or vPvB substances.
Other Adverse Effects	None known.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Management	When handling waste, consideration should be made to the safety precautions applying to handling of the product.
Disposal Methods	Do NOT dump into any sewers, on the ground or into any body of water. Rinse containers before disposal. Since emptied containers contain product residue, follow label warnings even after container is emptied. Dispose of all waste in accordance with local, state, and federal regulations covering solid waste disposal.

SECTION 14: TRANSPORT INFORMATION

UN No. (DOT/TDG)	1760 - CORROSIVE LIQUID, (Potassium Hydroxide)
UN No. (IMDG)	1760 - CORROSIVE LIQUID, (Potassium Hydroxide)
UN No. (ICAO)	1760 - Corrosive liquid (Potassium Hydroxide)
DOT Proper Shipping Name	1760 - CORROSIVE LIQUID, (Potassium Hydroxide)
TDG Proper Shipping Name	1760 - CORROSIVE LIQUID, (Potassium Hydroxide)
DOT Hazard Class	8

DOT Hazard Label	Class 8 - Corrosive
TDG Class	8
TDG Label(s)	8
IMDG Class	8
ICAO Class	8

Transport Labels

DOT Pack Group	II
IMDG Pack Group	II
Air Pack Group	II
EMS	F-A, S-B
Environmentally Hazardous Substance/Marine Pollutant	No

SECTION 15: REGULATORY INFORMATION

US Federal Regulations**SARA Section 302 Extremely Hazardous Substances Tier II Threshold Planning Quantities**

The Following ingredients are listed None Listed.

CERCLA/Superfund, Hazardous Substances/Reportable Quantities (EPA)

The Following ingredients are listed potassium hydroxide

SARA Extremely Hazardous Substances EPCRA Reportable Quantities

The Following ingredients are listed None Listed.

SARA 313 Emission Reporting

The Following ingredients are listed None Listed.

CAA Accidental Release Prevention

The Following ingredients are listed pentasodium triphosphate
trisodium trimetaphosphate

OSHA Highly Hazardous Chemicals

The Following ingredients are listed None Listed.

US State Regulations**California Proposition 65 Carcinogens and Reproductive Toxins**

The Following ingredients are listed None Listed.

California Air Toxics "Hot Spots" (A-I)

The Following ingredients are listed None Listed.

California Air Toxics "Hot Spots" (A-Ii)

The Following ingredients are listed None Listed.

Massachusetts "Right To Know" List

The Following ingredients are listed pentasodium triphosphate
tetrasodium pyrophosphate
trisodium trimetaphosphate
2-diethylaminoethanol/N,N-diethylethanolamine
potassium hydroxide

Rhode Island "Right To Know" List

The Following ingredients are listed potassium hydroxide

Minnesota "Right To Know" List

The Following ingredients are listed tetrasodium pyrophosphate
2-diethylaminoethanol/N,N-diethylethanolamine
potassium hydroxide

New Jersey "Right To Know" List

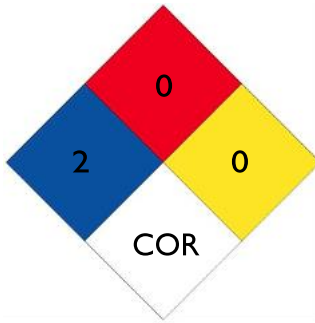
The Following ingredients are listed tetrasodium pyrophosphate
2-diethylaminoethanol/N,N-diethylethanolamine
potassium hydroxide
phosphonic acid

Pennsylvania "Right To Know" List

The Following ingredients are listed pentasodium triphosphate
tetrasodium pyrophosphate
trisodium trimetaphosphate
2-diethylaminoethanol/N,N-diethylethanolamine
potassium hydroxide
phosphonic acid

SECTION 16: OTHER INFORMATION

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)



HAZARDOUS MATERIAL INFORMATION SYSTEM (HMIS)

Health	2
Flammability	0
Physical Hazard	0
Personal Protection	C

Revision Comments

Revision Date 05/29/2015
Revision 1

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.