

Product BW578  
 Revision Date 12/02/2015  
 Revision 2



## Safety Data Sheet

### SECTION 1: IDENTIFICATION

**Product Name** **BW578**  
**Identifier Uses** Boiler Treatment.

**Supplier** Cannon Water Technology, Inc  
 233 Technology Way, Suite 9  
 Rocklin, CA 95765  
 Tel: 916-315-2691

**Contact Person** **csd@cannonwater.com**  
**Emergency Telephone** 24-HOUR EMERGENCY TELEPHONE: CHEMTEL: 1-800-255-3924

### SECTION 2: HAZARDS IDENTIFICATION

**Appearance** Clear, colorless to faint yellow liquid.  
**Color** Clear, colorless to faint yellow liquid.  
**Odor** Amine (fishy).

**Pictogram(s)**



**Signal Word** Danger

**Hazard Statements** H226 Flammable liquid and vapor.  
 H315 Causes skin irritation.  
 H317 May cause an allergic skin reaction  
 H333 May be harmful if inhaled.  
 H335 May cause respiratory irritation.  
 H341 Suspected of causing genetic defects.  
 H351 Suspected of causing cancer.  
 H411 Toxic to aquatic life with long lasting effects.

**Precautionary Statements** P201 Obtain special instructions before use.  
 P210 Keep away from heat/ sparks/open flames/hot surfaces. — No smoking.  
 P271 Use only outdoors or in a well-ventilated area.  
 P273 Avoid release to the environment.  
 P280 Wear protective gloves/ protective clothing/eye protection/face protection.  
 P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
 P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P308 + P313 IF exposed or concerned: Get medical advice/ attention.

**Contains** N,N-diethylhydroxylamine  
 hydroquinone

**GHS Classification**  
**Physical and Chemical Hazards** Flam. Liq 3- H226,  
**Human Health** Acute Tox 5 - H333, Eye Irrit. 2A - H315, Skin. Sens 1 B- H317, Muta. 2- H341, Carc. 2 - H351, STOT SE 3 - H335,  
**Environment** Aquatic Chronic 2 - H411

**OSHA Regulatory Status** This product is Hazardous under the OSHA Hazard communication Standard.

**Inhalation** Inhalation of product vapors or fumes may cause moderate to severe irritation to mucous

	membranes and respiratory tract. Inhalation of product vapors or fumes may be harmful, and even toxic. Symptoms of exposure may include nasal discomfort, nasal discharge, coughing and possible chest pain. Avoid contact.
<b>Ingestion</b>	Exposure to liquid product may cause moderate irritation to inner linings of mouth, esophagus and gastrointestinal tract. Ingestion of product may be harmful to health. Symptoms of exposure may include nausea, vomiting, diarrhea, dizziness, drowsiness, thirst, faintness, weakness or circulatory collapse. Do NOT ingest.
<b>Skin contact</b>	Exposure to liquid product may cause moderate irritation to skin. Absorption of product through the skin may be harmful to health. Symptoms of exposure may include redness, itching, swelling or pain. Effects of contact may be delayed. Avoid contact.
<b>Eye contact</b>	Exposure to liquid product may cause moderate irritation to eyes. Symptoms of exposure may include redness, itching, swelling, tearing or pain. Effects of contact may be delayed. Avoid contact.
<b>Routes of Exposure</b>	No Information available.

### SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

<b>Composition Comments</b>	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

<b>General Information</b>	General first aid, rest, warmth and fresh air.
<b>Inhalation</b>	If this product is inhaled, move the exposed person to fresh air immediately. If breathing is difficult, give the exposed person oxygen. If breathing ceases, administer artificial respiration followed by oxygen. Seek medical attention promptly.
<b>Ingestion</b>	If this product is ingested, seek medical attention immediately. Give the exposed person small amounts of water to drink. Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.
<b>Skin contact</b>	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.
<b>Eye contact</b>	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

<b>General Information</b>	
<b>Inhalation</b>	Inhalation of product vapors or fumes may cause moderate to severe irritation to mucous membranes and respiratory tract. Inhalation of product vapors or fumes may be harmful, and even toxic. Symptoms of exposure may include nasal discomfort, nasal discharge, coughing and possible chest pain. Avoid contact.
<b>Ingestion</b>	Exposure to liquid product may cause moderate irritation to inner linings of mouth, esophagus and gastrointestinal tract. Ingestion of product may be harmful to health. Symptoms of exposure may include nausea, vomiting, diarrhea, dizziness, drowsiness, thirst, faintness, weakness or circulatory collapse. Do NOT ingest.
<b>Skin contact</b>	Exposure to liquid product may cause moderate irritation to skin. Absorption of product through the skin may be harmful to health. Symptoms of exposure may include redness, itching, swelling or pain. Effects of contact may be delayed. Avoid contact.
<b>Eye contact</b>	Exposure to liquid product may cause moderate irritation to eyes. Symptoms of exposure may include redness, itching, swelling, tearing or pain. Effects of contact may be delayed. Avoid contact.
<b>Routes of Exposure</b>	No Information available.

#### Most important symptoms and effects, both acute and delayed

<b>Notes to the Physician</b>	Provide general supportive measures and treat symptomatically.
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### SECTION 5: FIREFIGHTING MEASURES

<b>Auto Ignition Temperature (°C)</b>	No Information available.
<b>Flammability Limit – Lower (%)</b>	No Information available.
<b>Flammability Limit – Upper (%)</b>	No Information available.

<b>Flashpoint</b>	> 200.0 °F
<b>Extinguishing Media</b>	Use dry chemical, foam or carbon dioxide to extinguish fire.
<b>Hazardous combustion products</b>	Carbon monoxide/dioxide and oxides of nitrogen.
<b>Unusual Fire &amp; Explosion Hazards</b>	Diethylamine, N-Hydroxysuccinimide, Carbon Monoxide formed when 85% N, N-diethylhydroxylamine is burned.
<b>Special Fire Fighting Procedures</b>	Use water to cool containers exposed to a fire.
<b>Protective equipment for fire-fighters</b>	Fire fighters should wear full protective equipment, and have self-contained breathing apparatus available.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

<b>Personal Precautions</b>	Use proper personal protection (refer to Section 8). Shut off or remove all sources of ignition.
<b>Environmental Precautions</b>	Use caution as spills of this product are very slippery. Run off from fire control or dilution water may cause pollution. Keep out of drains, municipal sewers, open bodies of water and water course.
<b>Spill Clean Up Methods</b>	Safely stop source of spill. Clean up spills immediately. Restrict non-essential personnel from the area. Wear protective clothing, goggles and respirator if ventilation is not adequate. Dike spill area and soak up material with sand or other absorbent. Place into chemical waste container for disposal according to local, state or federal regulations at an approved chemical waste reprocessing facility. Flush spill area with detergent and water. Do NOT flush into sewer or storm drain.

## SECTION 7: HANDLING AND STORAGE

<b>Handling</b>	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.
<b>Usage Description</b>	Use only according to directions.
<b>Storage Precautions</b>	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.
<b>Specific End Use(s)</b>	The identified uses are in section I of this Safety Data Sheet.

## SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

### Protective Equipment



Component	STD	TWA (8 Hrs)	STEL (15mins)	Notes
hydroquinone	OSHA	2mg/m3		

**Ingredient Comments** OSHA

<b>Process Conditions</b>	Provide eyewash, quick drench.
<b>Engineering Measures</b>	Provide adequate ventilation, including appropriate local extraction, to ensure that the defined occupational exposure limit is not exceeded.
<b>Respiratory Equipment</b>	Use a NIOSH approved 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.
<b>Hand Protection</b>	Use rubber or plastic gloves to minimize skin contact.
<b>Eye Protection</b>	Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
<b>Hygiene Measures</b>	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.

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**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**


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**Information on Basic Physical and Chemical Properties**

<b>Appearance</b>	Clear, colorless to faint yellowliquid.
<b>Color</b>	Clear, colorless to faint yellowliquid.
<b>Odor</b>	Amine (fishy).
<b>Odor Threshold -Lower</b>	No Information available.
<b>Odor Threshold - Upper</b>	No Information available.
<b>pH-Value, Conc. Solution</b>	9.0
<b>Melting point</b>	No Information available.
<b>Initial boiling point and boiling range</b>	212.0 °F
<b>Flash point</b>	> 200.0 °F
<b>Evaporation rate</b>	No Information available.
<b>Flammability State</b>	No Information available.
<b>Flammability Limit-Lower (%)</b>	No Information available.
<b>Flammability Limit-Upper (%)</b>	No Information available.
<b>Vapor pressure</b>	No Information available.
<b>Vapor Density (air= 1)</b>	No Information available.
<b>Relative density</b>	0.99 @ 68.0 °F
<b>Bulk Density</b>	No Information available.
<b>Solubility</b>	Completely soluble in water.
<b>Decomposition temperature</b>	No Information available.
<b>Partition coefficient; n-octanol/water</b>	No Information available.
<b>Auto Ignition Temperature (°C)</b>	No Information available.
<b>Viscosity</b>	No Information available.
<b>Explosive Properties</b>	No information available.
<b>Oxidizing Properties</b>	No Information available.
<b>Molecular Weight</b>	No Information available.
<b>Volatile Organic Compound</b>	No Information available.

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**SECTION 10: STABILITY AND REACTIVITY**


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<b>Reactivity</b>	Reactions may occur with strong acids and strong oxidizing agents.
<b>Stability</b>	This product is stable at ambient temperatures and atmospheric pressures.
<b>Hazardous Polymerization</b>	Hazardous polymerization is not expected to occur under normal temperatures and pressures.
<b>Hazardous Decomposition Products</b>	Carbon monoxide/dioxide and oxides of nitrogen.

**Conditions to Avoid** Avoid contact with strong oxidizing materials and strong acids.

**Materials to Avoid** Keep away from strong oxidizing materials and strong acids.

## SECTION 11: TOXICOLOGICAL INFORMATION

**Toxicological Information** No toxicological information for the overall finished product.

**Acute Toxicity (Oral LD50)** >438.00mg/kg Rat  
**Acute Toxicity (Dermal LD50)** >656.00mg/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** hydroquinone: 3 IARC Group 3 Not classifiable as to its carcinogenicity to humans.

**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
N,N-diethylhydroxylamine		1300mg/kg Rabbit	
hydroquinone	320mg/kg Rat	>900mg/kg Rat	

## SECTION 12: ECOLOGICAL INFORMATION

**Ecotoxicity** No Information available.

**Acute Toxicity - Fish** No Information available.  
**Acute Toxicity - Aquatic Invertebrates** No Information available.  
**Acute Toxicity - Aquatic Plants** Not known.

**Degradability** No information available.

**Bioaccumulative Potential** No data available on bioaccumulation.

**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. Do NOT reuse empty containers. Dispose in accordance with all applicable federal, state and local laws and regulations.

**SECTION 14: TRANSPORT INFORMATION**

<b>UN No. (DOT/TDG)</b>	1993 - FLAMMABLE LIQUID, (Diethylhydroxylamine)
<b>UN No. (IMDG)</b>	1993 - FLAMMABLE LIQUID, (Diethylhydroxylamine)
<b>UN No. (ICAO)</b>	1993 - Flammable liquid (Diethylhydroxylamine)
<b>DOT Proper Shipping Name</b>	1993 - FLAMMABLE LIQUID, (Diethylhydroxylamine)
<b>TDG Proper Shipping Name</b>	1993 - FLAMMABLE LIQUID, (Diethylhydroxylamine)
<b>DOT Hazard Class</b>	3
<b>DOT Hazard Label</b>	Class 3 - Flammable Liquid
<b>TDG Class</b>	3
<b>TDG Label(s)</b>	3
<b>IMDG Class</b>	3
<b>ICAO Class</b>	3
<b>Transport Labels</b>	
<b>DOT Pack Group</b>	III
<b>IMDG Pack Group</b>	III
<b>Air Pack Group</b>	III
<b>EMS</b>	F-E, S-E
<b>Environmentally Hazardous Substance/Marine Pollutant</b>	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      None Listed.

**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      hydroquinone

**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      hydroquinone

**Rhode Island "Right To Know" List**

The Following ingredients are listed      None Listed.

**Minnesota "Right To Know" List**

The Following ingredients are listed      hydroquinone

**New Jersey "Right To Know" List**

The Following ingredients are listed      hydroquinone

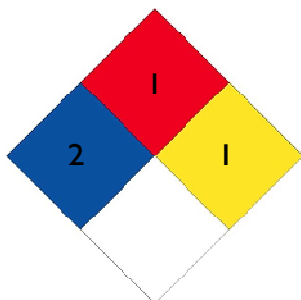
**Pennsylvania "Right To Know" List**

The Following ingredients are listed      hydroquinone

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**SECTION 16: OTHER INFORMATION**

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**NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)****HAZARDOUS MATERIAL INFORMATION SYSTEM (HMIS)**

Health	2
Flammability	1
Physical Hazard	1
Personal Protection	G

**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.