

# MATERIAL SAFETY DATA SHEET

## BOND 1530

### Material Identification and Use

EFFECTIVE DATE..... 1/3/01 Last Revision N/A)

MANUFACTURER'S NAME..... BOND WATER TECHNOLOGIES, INC.  
MANUFACTURER'S ADDRESS..... 630 E. Diamond Avenue, Suite J/K, Gaithersburg, MD 20877  
MANUFACTURER'S PHONE ..... (301) 721-BOND  
EMERGENCY PHONE NUMBER..... (800) 424-9300 CHEMTREC

DOT SHIPPING NAME..... NA  
HAZARD CLASS..... Not Regulated  
UN NUMBER..... NA

PRODUCT USE ..... This product is designed for use in industrial, commercial or institutional water treatment systems. This product is not for use in potable water systems.

### Hazardous Ingredients

HAZARDOUS INGREDIENTS	PERCENT (%)	TLV (Units)	CAS NUMBER
Disodium ethylenebis- dithiocarbamate	15	NE	142-59-6
Sodium dimethyldithio- carbamate	15	NE	128-04-1
Ethylene thiourea	< 1	NE	96-45-7
Ethylenediamine	< 0.75	10 ppm TWA	107-15-3
Dimethylamine	< 0.75	10 ppm TWA	124-40-3

### Physical Data

PHYSICAL STATE..... Liquid  
BOILING POINT ..... > 212° F/ 100° C  
MELTING POINT..... NE  
FREEZING POINT ..... 32° F  
VAPOUR PRESSURE ..... NA  
VAPOUR DENSITY (air=1) ..... NA  
EVAPORATION RATE ..... 1  
SOLUBILITY IN H2O ..... Complete  
VOLATILITY/VOL(%)..... 70, Water  
pH ..... 10.9  
SPECIFIC GRAVITY..... 1.130  
DENSITY (g/ml)..... NE  
ODOR AND APPEARANCE ..... Yellow-green color with strong sulfur odor

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### Fire and Explosion Hazard Data

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FLASHPOINT AND METHOD OF DETERMINATION .....	None
AUTO-IGNITION TEMPERATURE.....	NA
UPPER EXPLOSION LIMIT(% BY VOL) .....	NA
LOWER EXPLOSION LIMIT(% BY VOL) .....	NA
MEANS OF EXTINCTION.....	In case of fire, use water spray, foam, dry chemical or CO <sub>2</sub> .
HAZARDOUS COMBUSTION PRODUCTS .....	Thermal decomposition may release gases such as amines and carbon disulfide. Combustion of dry film may release oxides of carbon, nitrogen and sulfur
SPECIAL FIREFIGHTING PROCEEDURES.....	Wear self contained breathing apparatus WHILE EXTINGUISHING FIRE.
UNUSUAL FIRE AND EXPLOSION DATA .....	None

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### Reactivity Data

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CHEMICAL STABILITY.....	Stable
HAZARDOUS POLYMERIZATION.....	Will not occur
INCOMPATIBLE MATERIALS .....	Acidification releases flammable gases
HAZARDOUS DECOMPOSITION PRODUCTS .....	Thermal decomposition may release gases such as carbon disulfide and amines.
CONDITIONS OF REACTIVITY .....	Acidification releases flammable gases

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### Health Hazard Data

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ROUTES OF ENTRY	
BY EYE CONTACT .....	Possible
BY SKIN CONTACT .....	Possible
BY SKIN ABSORPTION .....	NA
BY INHALATION .....	Possible
BY INGESTION .....	Possible
TLV (UNITS).....	NE
ACUTE OVER EXPOSURE EFFECTS.....	Eye irritant. Skin irritant. Ingestion may cause nausea and vomiting.
CHRONIC OVER EXPOSURE EFFECTS .....	Product contains < 1% Ethylene Thiourea which has been determined to be carcinogenic in laboratory animals. ACUTE TOXICITY: Oral LD50 - Rats (1.4 gm/kg) Dermal LD50 - Rabbits (> 2 gm/kg) Acute inhalation - Rats (> 2.17 mg/l)

#### CARCINOGENIC ACCORDING TO THE FOLLOWING:

NTP? .....	Ethylene thiourea
IARC MONOGRAPHS? .....	Ethylene thiourea
OSHA REGULATED .....	No.....

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OTHER .....

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**First Aid Measures**

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SPECIFIC FIRST AID PROCEDURES ..... Flush eyes with abundant water. If irritation persists, consult a physician. Wash skin with soap and water. If ingested, give water. Do not induce vomiting. Call a physician. In case of discomfort by vapors or dust, move to a ventilated area.

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**Preventive Measures**

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LEAK AND SPILL PROCEDURES ..... Contain the spill and absorb with an inert material. Collect. Product is toxic to fish. Avoid contamination of lakes, streams, or ponds. Avoid contact with food or foodstuffs.

WASTE DISPOSAL..... Dispose of contaminated product via an approved chemical waste disposal firm and in accordance with all federal, state and local regulations.

HANDLING PROCEDURES AND EQUIPMENT..... Wear an eye protection apparatus and, in case of insufficient ventilation, an appropriate breathing apparatus. Handle an open container with care.

STORAGE REQUIREMENTS ..... Store in a tightly sealed container. Store in a cool, dry and well-ventilated area.

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**Control Measures**

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RESPIRATORY PROTECTION..... Use a vapor/particulate respirator that respirator suppliers recommends as effective for this product. Carefully follow directions for respirator use. Respiratory Protection not required if good ventilation is maintained.

VENTILATION

    LOCAL EXHAUST .....Recommended

    MECHANICAL EXHAUST.....Recommended

    OTHER.....

PROTECTIVE GLOVES..... Wear suitable gloves.

EYE PROTECTION..... Wear eye/face protection.

OTHER PROTECTIVE EQUIPMENT ..... Wear suitable protective clothing.

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Regulatory Information

HAZARD RATING:		HAZARD RATING SCALE:	
Health:	<b>2</b>	0=Minimal	3=Serious
Fire:	<b>0</b>	1=Slight	4=Severe
Reactivity:	<b>0</b>	2=Moderate	
Special Warning:			

SUPERFUND AMMENDMENTS AND REAUTHORIZATION ACT OF 1986 (SARA) TITLE III

Ingredients covered under the following sections:

CERCLA Hazardous Substance : ..... Ethylenethiourea, RQ= 10 lb ; Ethylenediamine, RQ= 5000 lbs ; Dimethylamine, RQ= 1000 lbs

SARA Toxic Chemical - SECTION 313: ..... Ethylenethiourea; Ethylenebisdithiocarbamic acids, salts, and esters (EBDC's) (Category Code: N171)

OTHER .....

IN ACCORDANCE WITH VARIOUS STATE (U.S.) REGULATIONS THIS PRODUCT CONTAINS THE FOLLOWING CHEMICAL INGREDIENTS:

INGREDIENTS	CAS NUMBER
Disodium Ethylenebis-dithiocarbamate	142-59-6
Sodium Dimethyldithiocarbamate	128-04-1
Ethylene Thiourea	96-45-7
Ethylenediamine	107-15-3
Dimethylamine	124-40-3

Preparation Information

PREPARED BY ..... PTD  
PHONE NUMBER OF PREPARER..... (301) 721-BOND

DISCLAIMER:

The above information and recommendations are accurate to the best of our knowledge. However, the company assumes no liability for the accuracy or completeness of the information contained herein and disclaims all liability for the reliance thereon. All chemicals present unknown health hazards and should be used with caution. The user should satisfy himself by independent investigation that he has all current data relevant to his particular use.

UN - Unavailable NA - Not Applicable NE - Not Established