

MATERIAL SAFETY DATA SHEET

BOND 3055

Material Identification and Use

EFFECTIVE DATE..... 3-17-99

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
Morpholine	1-10	20 ppm	110-91-8
Diethylaminoethanol	1-10	10 ppm	100-37-8

Physical Data

PHYSICAL STATE..... LIQUID
BOILING POINT NE
MELTING POINT..... NE
FREEZING POINT NE
VAPOUR PRESSURE NE
VAPOUR DENSITY (air=1) NE
EVAPORATION RATE NE
SOLUBILITY IN H2O COMPLETE
VOLATILITY/VOL(%)..... NE
pH 11.48
SPECIFIC GRAVITY..... 1.003
DENSITY (g/ml) NE
ODOUR AND APPEARANCE..... CLEAR LIQUID, STRONG AMINE ODOR

MATERIAL SAFETY DATA SHEET

BOND 3055

Fire and Explosion Hazard Data

FLASHPOINT AND METHOD OF DETERMINATION NE
AUTO-IGNITION TEMPERATURE..... NE
UPPER EXPLOSION LIMIT(% BY VOL) NE
LOWER EXPLOSION LIMIT(% BY VOL) NE
MEANS OF EXTINCTION..... IN CASE OF FIRE, USE WATER SPRAY, FOAM, DRY CHEMICAL, OR CO2.
HAZARDOUS COMBUSTION PRODUCTS Thermal decomposition products include carbon monoxide, carbon dioxide, and nitrogen oxides.
SPECIAL FIREFIGHTING PROCEEDURES..... Self-contained breathing apparatus may be necessary due to irritation and toxicity of vapors and/or combustion products.
UNUSUAL FIRE AND EXPLOSION DATA Vapors may be heavier than air.

Reactivity Data

CHEMICAL STABILITY..... Stable
HAZARDOUS POLYMERIZATION..... Will not occur
INCOMPATIBLE MATERIALS Strong acids, strong oxidizers
HAZARDOUS DECOMPOSITION PRODUCTS Thermal decomposition products include carbon monoxide, carbon dioxide, and nitrogen oxides.
CONDITIONS OF REACTIVITY KEEP AWAY FROM SOURCES OF IGNITION -- NO SMOKING.

Health Hazard Data

ROUTES OF ENTRY
BY EYE CONTACT Possible
BY SKIN CONTACT Possible
BY SKIN ABSORPTION Possible
BY INHALATION Possible
BY INGESTION Possible
TLV (UNITS)..... NE
ACUTE OVER EXPOSURE EFFECTS..... RISK OF SERIOUS DAMAGE OF EYES. MAY CAUSE BLINDNESS. SKIN IRRITANT. LUNG IRRITANT.
CHRONIC OVER EXPOSURE EFFECTS NE

CARCINOGENIC ACCORDING TO THE FOLLOWING:

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

OTHER

MATERIAL SAFETY DATA SHEET

BOND 3055

First Aid Measures

SPECIFIC FIRST AID PROCEDURES FLUSH EYES WITH ABUNDANT WATER. CONSULT A PHYSICIAN. REMOVE PROMPTLY CONTAMINATED CLOTHES. FLUSH SKIN WITH WATER. IN CASE OF DISCOMFORT BY VAPORS, MOVE TO A VENTILATED AREA. IF BREATHING HAS STOPPED, ADMINISTER ARTIFICIAL RESPIRATION. GIVE OXYGEN. KEEP WARM AND CALL A PHYSICIAN. IN CASE OF INGESTION, GIVE PLENTY OF WATER. INDUCE VOMITING IF POSSIBLE. CALL A PHYSICIAN.

Preventive Measures

LEAK AND SPILL PROCEDURES ELIMINATE ALL SOURCES OF IGNITION. ABSORB WITH INERT MATERIAL. COLLECT.

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 SUITABLE PROTECTIVE CLOTHING.

STORAGE REQUIREMENTS STORE IN A TIGHTLY SEALED CONTAINER. STORE IN A COOL AND DRY AREA, AWAY FROM ALL SOURCES OF IGNITION.

Control Measures

RESPIRATORY PROTECTION..... HANDLE AND OPEN CONTAINER WITH CARE. WEAR AN APPROPRIATE BREATHING APPARATUS.

VENTILATION

 LOCAL EXHAUSTAdequate

 MECHANICAL EXHAUST.....Recommended

 OTHER.....

PROTECTIVE GLOVES..... WEAR SUITABLE GLOVES.

EYE PROTECTION..... WEAR EYE/FACE PROTECTION. AVOID SPLASHES.

OTHER PROTECTIVE EQUIPMENT WEAR SUITABLE PROTECTIVE CLOTHING.

Regulatory Information

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

MATERIAL SAFETY DATA SHEET

BOND 3055

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

Ingredients covered under the following sections:

CERCLA Hazardous Substance - SECTION 304:None

SARA Toxic Chemical - SECTION 313:None

OTHER

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

INGREDIENTS	CAS NUMBER
Morpholine	110-91-8
Diethylaminoethanol	100-37-8

Preparation Information

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

DISCLAIMER:

The above information and recommendations are believed to be accurate to the best of our knowledge. However, BOND WATER TECHNOLOGIES, INC. 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