

MATERIAL SAFETY DATA SHEET

HF-450  
SALT WATER FOAMER

0 HMIS HEALTH  
3 HMIS FLAMMABILITY  
0 HMIS REACTIVITY  
B HMIS PERSONAL PROTECTION

SECTION I - IDENTIFICATION

COMPANY NAME..... B.B. CHEMICALS, INC. 16107 W. UNIVERSITY, ODESSA, TEXAS 79763  
PHONE NUMBER ..... 432-381-2595  
EMERGENCY PHONE NUMBER ..... 800-424-9300  
EFFECTIVE DATE..... May 2002  
TRADE NAME ..... HF-450  
CHEMICAL FAMILY ..... Foamer (Anionic)  
CAS NUMBER..... Blend  
CHEMICAL FORMULA ..... Confidential

SECTION II - HAZARDOUS INGREDIENTS

| HAZARDOUS COMPONENTS | %      | TLV (Units)  | PROD. CAS # |
|----------------------|--------|--|-------------|
| Isopropyl Alcohol    | 3-5%   | OSHA TWA 400 ppm ACGIH TWA 400 ppm<br>ACGIH STEL 500 ppm | 67-63-0     |
| Ethylene Glycol      | 10-12% | ACGIH C 50 ppm   | 111-76-2    |

SECTION III - PHYSICAL DATA

BOILING Point(F)..... ND  
FREEZING POINT (F) ..... ND  
VAPOR PRESSURE (mm Hg)..... ND  
VAPOR DENSITY (Air=1)..... ND  
VOLATILITY/VOL(%) ..... ND  
SOLUBILITY IN H2O..... Soluble  
APPEARANCE/ODOR..... Colorless to Amber Liquid  
SPECIFIC GRAVITY (H2O=1)..... 1.0  
DENSITY (G/ML)..... 464# / 55 gallon drum  
PH..... ND

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT ..... 160° F  
LOWER FLAME LIMIT ..... ND  
HIGHER FLAME LIMIT ..... ND  
EXTINGUISH MEDIA ..... Alcohol Foam, Dry Powder, Carbon Dioxide (CO2). Use water if only resource available.  
UNUSUAL FIRE HAZARD ..... Flammable liquid. Vapors can form an ignitable mixture with air. Vapors can flow along surfaces to a distant ignition source and flash back. Material can burn with little or no visible flame. Containers may explode from internal pressure if confined to fire. Cool with water. Keep unnecessary people away.

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**SECTION V - HEALTH HAZARD DATA**

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THRESHOLD LIMIT VALUE ..... 25 ppm Based on Ethylene Glycol Monobutyl Ether

| <b>ROUTES OF ENTRY</b> | <b>INHALATION?</b> | <b>SKIN?</b> | <b>INGESTION?</b> |
|------------------------|--------------------|--------------|-------------------|
|                        | Unknown            | Irritant     | Irritant          |

HEALTH HAZARDS ..... Acute, Irritating to skin and eyes. Chronic, Kidney and liver damage possible. Glycol ethers have been linked with birth defects and mutagenic claims.

| <b>CARCINOGENICITY</b> | <b>NTP?</b> | <b>IARC MONOGRAPHS?</b> | <b>OSHA REGULATED</b> |
|------------------------|-------------|-------------------------|-----------------------|
| No                     | No          | No                      | No                    |

OVER EXPOSURE EFFECTS ..... Skin irritation develops slowly after contact. Eye irritation develops immediately upon contact.  
FIRST AID PROCEDURES..... In case of eye contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention. In case of skin contact immediately wash skin with soap and plenty of water. If irritation persists, contact a physician. If inhaled, remove fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. If breathing difficult, give oxygen. Get medical attention. If swallowed, do NOT induce vomiting and get IMMEDIATE medical attention. If swallowed, do not induce vomiting, get immediate medical attention.

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**SECTION VI - REACTIVITY DATA**

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CHEMICAL STABILITY ..... Stable  
CONDITIONS TO AVOID ..... None  
INCOMPATIBLE MATERIALS ..... None currently known  
DECOMPOSITION PRODUCTS ..... From FIRE: SMOKE, CARBON DIOXIDE, CARBON MONOXIDE, OXIDES OF SULFUR AND OXIDES OF Nitrogen From FIRE: SMOKE, CARBON DIOXIDE, CARBON MONOXIDE, OXIDES OF SULFUR AND OXIDES OF Nitrogen  
HAZARDOUS POLYMERIZATION ..... Will not occur  
POLYMERIZATION AVOID ..... None

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**SECTION VII - SPILL OR LEAK PROCEDURE**

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FOR SPILL ..... In case of spillage, absorb with inert material and dispose of in accordance with applicable regulations.  
WASTE DISPOSAL METHOD..... Hazardous Waste. Follow Federal and State Regulations.

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**SECTION VIII - SPECIAL PROTECTION**

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RESPIRATORY PROTECTION ..... Not Normally needed.  
VENTILATION ..... Desired in closed places  
MECHANICAL EXHAUST ..... Desired  
LOCAL EXHAUST..... Desired in closed places  
PROTECTIVE GLOVES ..... Chemical Type suitable for hydrocarbon solvents.  
EYE PROTECTION..... Chemical Goggles or Full Face Shield recommended

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OTHER PROTECTIVE EQUIPMENT.....HMIS Personal Protection: B: Safety glasses and Gloves.

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SECTION IX - SPECIAL HANDLING AND DOT

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HANDLING AND STORAGE..... Store in a cool place away from ignition sources. Store away from oxidizers or materials bearing a yellow DOT label.

PRECAUTIONARY MEASURES..... Keep away form heat, sparks and flame. Use with adequate ventilation. Do not breathe vapors avoid prolonged or repeated contact with skin. Do not breathe vapors. Avoid prolonged or repeated contact with skin.

HAZARD CLASS..... None

DOT SHIPPING NAME ..... Combustible Liquid, n.o.s., NA1993, PGIII (contains Isopropyl Alcohol, Ethylene Glycol)RQ440 gal.

REPORTABLE QUANTITY (RQ)..... Not Applicable

UN NUMBER ..... None

NA # ..... NA1993

PACKAGING SIZE..... Bulk and Drums

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FOOT NOTES  
N/A=NOT APPLICABLE - N/D=NO DATA  
AVAILABLE <=LESS THAN - >=GREATER  
THAN

PREPARED BY ..... B.B. CHEMICALS, INC. (432) 381-2595  
REVISION DATE..... May 2002

This product health and safety information is provided to assist our customers in assessing compliance with health, safety and environmental regulations. The information contained herein is based on data available to us, and is believed to be accurate, although no guarantee or warranty is provided or implied by the company in this respect. Since the use of this product is within the exclusive control of the user, it is the user's responsibility to determine the conditions of safe use. Such conditions must comply with all governmental regulations. all material in this product are produced in compliance with public law 94-469. (Also know as the "Toxic Substance Control Act" of 1976). MUST COMPLY WITH ALL GOVERNMENTAL REGULATIONS. ALL MATERIALS IN THIS PRODUCT ARE PRODUCED IN COMPLIANCE WITH PUBLIC LAW 94-469. (ALSO KNOWN AS THE "TOXIC SUBSTANCE CONTROL ACT" OF 1976).

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TRADE NAME ..... HF-450

SIGNAL WORD..... CAUTION!

STATEMENT OF HAZARD ..... Combustible

DOT LABEL REQUIRED ..... NOT REGULATED in containers of 119 gallons or less

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ENVIRONMENTAL DATA SHEET

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SPECIAL NOTICE: In accordance with 40 CFR 372.45, this product contains the following materials which have been classified as TOXIC under SARA Title III, Section 313. This page is a part of the Material Safety Data Sheet describing the above named product and shall not be detached. Any reproduction or distribution of this Material Safety Data Sheet after January 1, 1989 must include this page.

SECTION XI - SARA TITLE III, SECTION 313

| TOXIC CHEMICALS | %      | PROD. CAS # |
|-----------------|--------|-------------|
| Ethylene Glycol | 10-12% | 111-76-2    |

SECTION X - ENVIRONMENTAL DATA

EPA HAZARD .....  
CERCLA RQ VALUE..... 1000# based on Ethylene Glycol  
SARA TPQ ..... NONE  
SARA RQ ..... NONE  
RCRA HAZARDOUS WASTE..... NONE  
CLEAN AIR ..... NA  
CLEAN WATER..... NONE