

# Material Safety Data Sheet

**Provided by:**  
DPC Industries, Inc.      **DX Distributors, Inc.**  
DPC Enterprises          **DX Systems Company**  
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## SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Product Name**      BORON TRIFLUORIDE

**Synonyms**          TRIFLOROBORANE, BORON FLUORIDE

**Chemical Name**    BORON TRIFLUORIDE

**Emergency phone:**    281-457-4888

**Date of Issue:**        12/28/2000

**Chemtrec:**            800-424-9300

**Revised Date:**        N/A

## SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENTS	PERCENT	CAS NO.
BORON TRIFLUORIDE	100%	7637-07-2

## SECTION 3 - HAZARDS IDENTIFICATION

### Potential Health Effects

**ACGIH - TLV:**        2.8 mg/cu m

**Eye Contact**        CAN CAUSE SEVERE DAMAGE RESULTING IN POSSIBLE BLINDNESS.

**Skin Contact**        CAN CAUSE SEVER IRRITATION AND CORROSIVE BURNS.

**Ingestion**            CAN CAUSE IRRITATION AND BURNS.

**Inhalation**            HIGHLY IRRITATING TO THE RESPIRATORY TRACT. MAY CAUSE PNEUMONITIS. DAMAGE TO LUNGS AND KIDNEYS MAY OCCUR.

**Carcinogenicity:**    *NTP* NO    *IARC* NO    *OSHA* NO

## SECTION 4 - FIRST AID PROCEDURES

**Eye Contact:**        IMMEDIATELY FLUSH EYES WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES WHILE HOLDING EYELIDS OPEN. GET MEDICAL ATTENTION.

**Skin Contact:**        IMMEDIATELY REMOVE CONTAMINATED CLOTHING OR SHOES, WIPE EXCESS FROM SKIN AND FLUSH WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES. USE SOAP IF AVAILABLE OR FOLLOW BY WASHING WITH SOAP AND WATER. DO NOT REUSE CLOTHING UNTIL THOROUGHLY CLEANED. GET MEDICAL ATTENTION.

**Inhalation:**            REMOVE VICTIM TO FRESH AIR AND PROVIDE OXYGEN IF BREATHING IS DIFFICULT. GIVE ARTIFICIAL RESPIRATION IF NOT BREATHING. GET MEDICAL ATTENTION.

**Ingestion:**            DO NOT INDUCE VOMITING. RINSE MOUTH WITH WATER. IF CONSCIOUS, GIVE LARGE QUANTITIES OF WATER OR MILK AND GET IMMEDIATE MEDICAL ATTENTION. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON!

## SECTION 5 - FIRE FIGHTING MEASURES

**Flash Point**            NOT APPLICABLE

**Extinguishing Media**    FOG TYPE SPRAY TO KNOCK DOWN FUMES AND PARTICULATES.

**Special Firefighting  
Procedures/Precuations**

WEAR SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE GEAR. STAY UPWIND AND KEEP OUT OF LOW AREAS.

**SECTION 6 - ACCIDENTAL RELEASE MEASURES**

**For Spill:** EVACUATE AREA AND KEEP UNAUTHORIZED PERSONNEL AWAY. PROVIDE PERSONAL PROTECTIVE EQUIPMENT. SHUT OFF LEAK IF IT CAN BE DONE IN A SAFE MANNER. USE WATER SPRAY TO WASH WALLS AND FLOOR. DO NOT ALLOW WATER TO ENTER WATERWAYS AND SEWERS.

**SECTION 7 - HANDLING AND STORAGE**

Keep container tightly closed when not in use. Store in a cool, dry, well-ventilated area, away from heat and incompatible materials. Protect containers from physical damage.

DO NOT DROP OR BANG CYLINDERS TOGETHER. DO NOT APPLY HEAT OR CHILL CYLINDERS BELOW -20 °F. STORE OUTDOORS OR IN A WELL VENTILATED AREA. DO NOT STORE CYLINDERS IN SUNLIGHT, ON DAMP GROUND OR IN CONTACT WITH MOISTURE. PROTECT CYLINDERS FROM DAMAGE.

**SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Respiratory Protection** USE A NIOSH/MSHA APPROVED RESPIRATOR FOLLOWING MANUFACTURER'S RECOMMENDATIONS.

**Ventilation** LOCAL AND MECHANICAL RECOMMENDED.

**Protective Gloves** CHEMICAL IMPERVIOUS GLOVES.

**Eye/Face Protection** CHEMICAL SAFETY GOGGLES AND/OR FULL-FACE SHIELD.

**Other Protection** CHEMICAL RESISTANT CLOTHING SUCH AS COVERALLS/APRON, BOOTS, ETC.

**Work Practices** USE GOOD PERSONAL HYGIENE PRACTICES. WASH HANDS BEFORE EATING, DRINKING, SMOKING, OR USING TOILET FACILITIES. PROMPTLY REMOVE SOILED CLOTHING AND WASH THOROUGHLY BEFORE REUSE. SHOWER AFTER WORK USING PLENTY OF SOAP AND WATER.

**SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES**

<b>Boiling Point (°F):</b> -148	<b>Vapor Pressure (mmHg):</b> > 38000
<b>Freezing Point (°F):</b> NOT ESTABLISHED	<b>Vapor Density (Air=1):</b> 2.34
<b>Solubility (H2O):</b> 77%	<b>Specific Gravity (H2O=1):</b> SEE VAPOR DENSITY
<b>pH</b> NO DATA	<b>Evaporation Rate:</b> NOT APPLICABLE
<b>Appearance/Odor:</b> COLORLESS GAS WITH A PUNGENT ODOR.	

**SECTION 10 - STABILITY AND REACTIVITY**

<b>Chemical Stability:</b>	YES
<b>Incompatible Materials</b>	POLYMERIZABLE MATERIALS, WATER, ALKALI METALS, ALKALINE EARTH METALS EXCEPT MAGNESIUM, ALKYL NITRATES.
<b>Decomposition Products</b>	FLUORBORIC ACID, BORIC ACID AND HYDROXY FLUOROBORIC ACIDS.
<b>Hazardous Polymerization:</b>	WILL NOT OCCUR.

**SECTION 11 - TOXICITY INFORMATION**

LD50 ORAL (rat) = 310 mg/kg LC50 INHL (rat) = 1210 mg/kg LC50 INHL (mouse) = 3460 mg/cu m/2 hr SKIN (rabbit) = 0.5 ML  
CORROSIVE AND LETHAL.

**SECTION 12 - ECOLOGICAL INFORMATION**

AQUATIC TOXICITY: LC50 = 102 MICROLITERS/L/96 HR/RAINBOW TROUT EC50 = 46 MICROLITERS/LITER/48HR/WATER FLEA

**SECTION 13 - DISPOSAL CONSIDERATIONS**

DISPOSE OF WASTE MATERIALS ACCORDING TO ALL FEDERAL, STATE AND LOCAL REGULATIONS.

**SECTION 14 - TRANSPORT INFORMATION**

**USA DOT Shipping Name:** BORON TRIFLUORIDE, COMPRESSED

**Hazard Class:** 2.3 (POISON--INHALATION HAZARD, ZONE B)

**UN/NA Number:** UN1008

**Packing Group:** NOT APPLICABLE

**Subsidiary Hazard**

**Marine Pollutant:** NO

**SECTION 15 - REGULATORY INFORMATION**

**CERCLA RQ (lbs):** 500

**SARA Title III Section 312:**

**Acute**     **Chronic**     **Flammable**     **Sudden Release of Pressure**     **Reactive**

**SARA Title III Section 313:** No

**SARA Extremely Hazardous Substance:** No

**HMS HAZARD RATING**

**Health:** 3                      **Fire:** 0                      **Reactivity:** 1

0 - Least    1 - Slight    2 - Moderate    3 - High    4 - Extreme

**SECTION 16 - OTHER INFORMATION**

**EPA Pesticide Registration Number:** NOT APPLICABLE

**NSF Maximum Use Level for Potable Water (Standard 60):** NOT APPLICABLE

**TSCA (Toxic Substance Control Act), 40 CFR 710:**

Sources of the raw materials used in this mixture assure that all chemical ingredients present are in compliance with Section 8(b) Chemical Substance Inventory, or are otherwise in compliance with TSCA.

**DISCLAIMER**

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