

# *Chem-Impex International Inc.*

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825 Dillon Drive

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## SAFETY DATA SHEET

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### SECTION 1. CHEMICAL IDENTIFICATION

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CATALOG #:	45091
NAME:	Benzotrifluoride
SYNONYMS:	(Trifluoromethyl)benzene $\alpha,\alpha,\alpha$ -Trifluorotoluene
24 HOUR EMERGENCY TELEPHONE:	(800) 535-5053(USA) 352-323-3500 (INTERNATIONAL)
TO REQUEST AN MSDS:	(800) 869-9290
CUSTOMER SERVICE:	(630) 766-2112

### SECTION 2. HAZARDS IDENTIFICATION

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#### CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

#### GHS CLASSIFICATION IN ACCORDANCE WITH 29 CFR 1910 (OSHA HCS)

FLAMMABLE LIQUIDS (CATEGORY 2), H225

SHORT-TERM (ACUTE) AQUATIC HAZARD (CATEGORY 2), H401

LONG-TERM (CHRONIC) AQUATIC HAZARD (CATEGORY 2), H411

FOR THE FULL TEXT OF THE H-STATEMENTS MENTIONED IN THIS SECTION, SEE SECTION 16.

**GHS LABEL ELEMENTS, INCLUDING PRECAUTIONARY STATEMENTS  
PICTOGRAM**



SIGNAL WORD DANGER

**HAZARD STATEMENT(S)**

H225 HIGHLY FLAMMABLE LIQUID AND VAPOR.  
H411 TOXIC TO AQUATIC LIFE WITH LONG LASTING EFFECTS.

**PRECAUTIONARY STATEMENT(S)**

P210 KEEP AWAY FROM HEAT/ SPARKS/ OPEN FLAMES/ HOT SURFACES. NO SMOKING.  
P233 KEEP CONTAINER TIGHTLY CLOSED.  
P240 GROUND/BOND CONTAINER AND RECEIVING EQUIPMENT.  
P241 USE EXPLOSION-PROOF ELECTRICAL/ VENTILATING/ LIGHTING/ EQUIPMENT.  
P242 USE ONLY NON-SPARKING TOOLS.  
P243 TAKE PRECAUTIONARY MEASURES AGAINST STATIC DISCHARGE.  
P273 AVOID RELEASE TO THE ENVIRONMENT.  
P280 WEAR PROTECTIVE GLOVES/ PROTECTIVE CLOTHING/ EYE PROTECTION/ FACE PROTECTION.  
P303 + P361 + P353 IF ON SKIN (OR HAIR): TAKE OFF IMMEDIATELY ALL CONTAMINATED CLOTHING. RINSE SKIN WITH WATER/ SHOWER.  
P370 + P378 IN CASE OF FIRE: USE DRY SAND, DRY CHEMICAL OR ALCOHOL-RESISTANT FOAM TO EXTINGUISH.  
P391 COLLECT SPILLAGE.  
P403 + P235 STORE IN A WELL-VENTILATED PLACE. KEEP COOL.  
P501 DISPOSE OF CONTENTS/ CONTAINER TO AN APPROVED WASTE DISPOSAL PLANT.

**HAZARDS NOT  
OTHERWISE  
CLASSIFIED (HNOC)  
OR NOT COVERED  
BY GHS** NONE

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**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

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MF:  $C_7H_5F_3$   
MW: 146.11  
CAS-NO. 98-08-8  
PURITY:  $\geq 98\%$  (GC)

COMPONENT	CLASSIFICATION	CONCENTRATION
<b>Benzotrifluoride</b>	FLAM. LIQ. 2; AQUATIC ACUTE 2; AQUATIC CHRONIC 2; H225, H401, H411	<= 100 %

FOR THE FULL TEXT OF THE H-STATEMENTS MENTIONED IN THIS SECTION, SEE SECTION 16.

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## SECTION 4. FIRST-AID MEASURES

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### DESCRIPTION OF FIRST AID MEASURES

<b>GENERAL ADVICE</b>	SHOW THIS MATERIAL SAFETY DATA SHEET TO THE DOCTOR IN ATTENDANCE.
<b>IF INHALED</b>	AFTER INHALATION: FRESH AIR.
<b>IN CASE OF SKIN CONTACT</b>	IN CASE OF SKIN CONTACT: TAKE OFF IMMEDIATELY ALL CONTAMINATED CLOTHING. RINSE SKIN WITH WATER/ SHOWER.
<b>IN CASE OF EYE CONTACT</b>	AFTER EYE CONTACT: RINSE OUT WITH PLENTY OF WATER. REMOVE CONTACT LENSES.
<b>IF SWALLOWED</b>	AFTER SWALLOWING: MAKE VICTIM DRINK WATER (TWO GLASSES AT MOST). CONSULT DOCTOR IF FEELING UNWELL.
<b>MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED</b>	THE MOST IMPORTANT KNOWN SYMPTOMS AND EFFECTS ARE DESCRIBED IN THE LABELLING (SEE SECTION 2.2) AND/OR IN SECTION 11
<b>INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED</b>	NO DATA AVAILABLE

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## SECTION 5. FIRE AND EXPLOSION DATA

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### EXTINGUISHING MEDIA

<b>SUITABLE EXTINGUISHING MEDIA</b>	SUITABLE EXTINGUISHING MEDIA CARBON DIOXIDE (CO2) DRY POWDER
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UNSUITABLE EXTINGUISHING MEDIA  
FOAM WATER

**SPECIAL HAZARDS  
ARISING FROM THE  
SUBSTANCE OR MIXTURE**

CARBON OXIDES  
HYDROGEN FLUORIDE  
COMBUSTIBLE.  
PAY ATTENTION TO FLASHBACK.  
VAPORS ARE HEAVIER THAN AIR AND MAY SPREAD  
ALONG FLOORS.  
RISK OF DUST EXPLOSION.  
DEVELOPMENT OF HAZARDOUS COMBUSTION GASES  
OR VAPOURS POSSIBLE IN THE EVENT OF FIRE.  
FORMS EXPLOSIVE MIXTURES WITH AIR AT AMBIENT  
TEMPERATURES.

**ADVICE FOR  
FIREFIGHTERS**

IN THE EVENT OF FIRE, WEAR SELF-CONTAINED  
BREATHING APPARATUS.

**FURTHER INFORMATION**

REMOVE CONTAINER FROM DANGER ZONE AND COOL  
WITH WATER. SUPPRESS (KNOCK DOWN)  
GASES/VAPORS/MISTS WITH A WATER SPRAY JET.  
PREVENT FIRE EXTINGUISHING WATER FROM  
CONTAMINATING SURFACE WATER OR THE GROUND  
WATER SYSTEM.

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**SECTION 6. ACCIDENTAL RELEASE MEASURES**

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**PERSONAL  
PRECAUTIONS,  
PROTECTIVE  
EQUIPMENT AND  
EMERGENCY  
PROCEDURES**

ADVICE FOR NON-EMERGENCY PERSONNEL: AVOID  
INHALATION OF DUSTS. AVOID SUBSTANCE CONTACT.  
ENSURE ADEQUATE VENTILATION. EVACUATE THE  
DANGER AREA, OBSERVE EMERGENCY PROCEDURES,  
CONSULT AN EXPERT.  
FOR PERSONAL PROTECTION SEE SECTION 8.

**ENVIRONMENTAL  
PRECAUTIONS**

DO NOT LET PRODUCT ENTER DRAINS. RISK OF  
EXPLOSION.

**METHODS AND  
MATERIALS FOR  
CONTAINMENT AND  
CLEANING UP**

COVER DRAINS. COLLECT, BIND, AND PUMP OFF  
SPILLS. OBSERVE POSSIBLE MATERIAL RESTRICTIONS  
(SEE SECTIONS 7 AND 10). CLEAN UP AFFECTED AREA.

**REFERENCE TO OTHER  
SECTIONS**

FOR DISPOSAL SEE SECTION 13.

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**SECTION 7. HANDLING AND STORAGE**

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<b>PRECAUTIONS FOR SAFE HANDLING</b>	KEEP AWAY FROM OPEN FLAMES, HOT SURFACES AND SOURCES OF IGNITION.TAKE PRECAUTIONARY MEASURES AGAINST STATIC DISCHARGE. CHANGE CONTAMINATED CLOTHING. WASH HANDS AFTER WORKING WITH SUBSTANCE. FOR PRECAUTIONS SEE SECTION 2.2.
<b>CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES</b>	KEEP CONTAINER TIGHTLY CLOSED IN A DRY AND WELL-VENTILATED PLACE. KEEP AWAY FROM HEAT AND SOURCES OF IGNITION.  Store at 2 - 8 °C
<b>SPECIFIC END USE(S)</b>	APART FROM THE USES MENTIONED IN SECTION 1.2 NO OTHER SPECIFIC USES ARE STIPULATED.

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## **SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

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### **CONTROL PARAMETERS**

<b>COMPONENTS WITH WORKPLACE CONTROL PARAMETERS</b>	CONTAINS NO SUBSTANCES WITH OCCUPATIONAL EXPOSURE LIMIT VALUES.
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### **EXPOSURE CONTROLS**

<b>APPROPRIATE ENGINEERING CONTROLS</b>	CHANGE CONTAMINATED CLOTHING. WASH HANDS AFTER WORKING WITH SUBSTANCE.
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### **PERSONAL PROTECTIVE EQUIPMENT**

<b>EYE/FACE PROTECTION</b>	USE EQUIPMENT FOR EYE PROTECTION TESTED AND APPROVED UNDER APPROPRIATE GOVERNMENT STANDARDS SUCH AS NIOSH (US) OR EN 166(EU). SAFETY GLASSES
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<b>SKIN PROTECTION</b>	HANDLE WITH GLOVES. GLOVES MUST BE INSPECTED PRIOR TO USE. USE PROPER GLOVE REMOVAL TECHNIQUE (WITHOUT TOUCHING GLOVE'S OUTER SURFACE) TO AVOID SKIN CONTACT WITH THIS PRODUCT. DISPOSE OF CONTAMINATED GLOVES AFTER USE IN ACCORDANCE WITH APPLICABLE LAWS AND GOOD LABORATORY PRACTICES. WASH AND DRY HANDS.
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<b>BODY PROTECTION</b>	FLAME RETARDANT ANTISTATIC PROTECTIVE CLOTHING.
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<b>RESPIRATORY PROTECTION</b>	REQUIRED WHEN VAPOURS/AEROSOLS ARE GENERATED.
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**CONTROL OF ENVIRONMENTAL EXPOSURE**

DO NOT LET PRODUCT ENTER DRAINS. RISK OF EXPLOSION.

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**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

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**INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES**

APPEARANCE	Colorless to almost colorless clear liquid
ODOUR	NO DATA AVAILABLE
ODOUR THRESHOLD	NO DATA AVAILABLE
PH	NO DATA AVAILABLE
MELTING POINT/FREEZING POINT	-29 °C (Lit.)
INITIAL BOILING POINT AND BOILING RANGE	102 °C (Lit.)
FLASH POINT	
EVAPORATION RATE	NO DATA AVAILABLE
FLAMMABILITY (SOLID, GAS)	NO DATA AVAILABLE
UPPER/LOWER FLAMMABILITY OR EXPLOSIVE LIMITS	NO DATA AVAILABLE
VAPOUR PRESSURE	69.99 HPA AT 20 °C - OECD TEST GUIDELINE 104
VAPOUR DENSITY	5.04 - (AIR = 1.0)
RELATIVE DENSITY	1.19 g/cm <sup>3</sup>
WATER SOLUBILITY	0.151 G/L AT 20 °C - OECD TEST GUIDELINE 105
PARTITION COEFFICIENT: N- OCTANOL/WATER	POW: 1,031; LOG POW: 3.01 AT 20 °C - OECD TEST GUIDELINE 117 - BIOACCUMULATION IS NOT EXPECTED.
AUTO-IGNITION TEMPERATURE	NOT AUTO-FLAMMABLE
DECOMPOSITION TEMPERATURE	NO DATA AVAILABLE
VISCOSITY	NO DATA AVAILABLE
EXPLOSIVE PROPERTIES	NO DATA AVAILABLE
OXIDIZING PROPERTIES	NO DATA AVAILABLE

**OTHER SAFETY INFORMATION**

RELATIVE VAPOR DENSITY	5.04 - (AIR = 1.0)
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**SECTION 10. STABILITY AND REACTIVITY**

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<b>REACTIVITY</b>	VAPORS MAY FORM EXPLOSIVE MIXTURE WITH AIR.
<b>CHEMICAL STABILITY</b>	THE PRODUCT IS CHEMICALLY STABLE UNDER STANDARD AMBIENT CONDITIONS.

<b>POSSIBILITY OF HAZARDOUS REACTIONS</b>	GENERATES DANGEROUS GASES OR FUMES IN CONTACT WITH: WATER VIOLENT REACTIONS POSSIBLE WITH: STRONG OXIDIZING AGENTS STRONG REDUCING AGENTS STRONG BASES
<b>CONDITIONS TO AVOID</b>	WARMING.
<b>INCOMPATIBLE MATERIALS</b>	NO DATA AVAILABLE
<b>HAZARDOUS DECOMPOSITION PRODUCTS</b>	IN THE EVENT OF FIRE: SEE SECTION 5

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## SECTION 11. TOXICOLOGICAL INFORMATION

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### INFORMATION ON TOXICOLOGICAL EFFECTS

<b>ACUTE TOXICITY</b>	LD50 ORAL - MOUSE - 10,000 MG/KG REMARKS: BEHAVIORAL: GENERAL ANESTHETIC. BEHAVIORAL: EXCITEMENT. BEHAVIORAL: MUSCLE WEAKNESS.  LC50 INHALATION - RAT - 4 H - 70,810 MG/M3  LD50 DERMAL - RAT - > 2,000 MG/KG (OECD TEST GUIDELINE 402)  NO DATA AVAILABLE
<b>SKIN CORROSION/IRRITATION</b>	SKIN - RABBIT RESULT: NO SKIN IRRITATION - 4 H (OECD TEST GUIDELINE 404)
<b>SERIOUS EYE DAMAGE/EYE IRRITATION</b>	EYES - RABBIT RESULT: NO EYE IRRITATION - 72 H (OECD TEST GUIDELINE 405)
<b>RESPIRATORY OR SKIN SENSITISATION</b>	DIRECT PEPTIDE REACTIVITY ASSAY (DPRA) RESULT: NOT A SKIN SENSITIZER. (OECD TEST GUIDELINE 442C)

**GERM CELL  
MUTAGENICITY**

TEST TYPE: REVERSE MUTATION ASSAY  
TEST SYSTEM: TA1535  
METABOLIC ACTIVATION: WITH AND WITHOUT  
METABOLIC ACTIVATION  
METHOD: OECD TEST GUIDELINE 471  
RESULT: NEGATIVE

**CARCINOGENICITY**

IARC:

NO COMPONENT OF THIS PRODUCT PRESENT AT  
LEVELS GREATER THAN OR EQUAL TO 0.1% IS  
IDENTIFIED AS PROBABLE, POSSIBLE OR CONFIRMED  
HUMAN CARCINOGEN BY IARC.

NTP:

NO COMPONENT OF THIS PRODUCT PRESENT AT  
LEVELS GREATER THAN OR EQUAL TO 0.1% IS  
IDENTIFIED AS A KNOWN OR ANTICIPATED  
CARCINOGEN BY NTP.

OSHA:

NO COMPONENT OF THIS PRODUCT PRESENT AT  
LEVELS GREATER THAN OR EQUAL TO 0.1% IS ON  
OSHA S LIST OF REGULATED CARCINOGENS.

**REPRODUCTIVE TOXICITY**

NO DATA AVAILABLE

**SPECIFIC TARGET ORGAN  
TOXICITY - SINGLE  
EXPOSURE**

NO DATA AVAILABLE

**SPECIFIC TARGET ORGAN  
TOXICITY - REPEATED  
EXPOSURE**

NO DATA AVAILABLE

**ASPIRATION HAZARD**

NO DATA AVAILABLE

**ADDITIONAL  
INFORMATION**

RTECS: XT9450000

CENTRAL NERVOUS SYSTEM DEPRESSION,  
DROWSINESS, DIZZINESS, TO THE BEST OF OUR  
KNOWLEDGE, THE CHEMICAL, PHYSICAL, AND  
TOXICOLOGICAL PROPERTIES HAVE NOT BEEN  
THOROUGHLY INVESTIGATED.

STOMACH - IRREGULARITIES - BASED ON HUMAN  
EVIDENCE

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**SECTION 12. ECOLOGICAL INFORMATION**

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**TOXICITY**

TOXICITY TO FISH

LC50 - ORYZIAS LATIPES - 19.4 MG/L - 96 H  
REMARKS: (ECHA)



TOXICITY TO DAPHNIA AND OTHER AQUATIC INVERTEBRATES	SEMI-STATIC TEST EC50 - DAPHNIA MAGNA (WATER FLEA) - 3.11 MG/L - 48 H (OECD TEST GUIDELINE 202)
TOXICITY TO ALGAE	STATIC TEST EC50 - PSEUDOKIRCHNERIELLA SUBCAPITATA - 5.4 MG/L - 72 H (OECD TEST GUIDELINE 201)
TOXICITY TO BACTERIA	EC5 - ACTIVATED SLUDGE - 10 - 100 MG/L - 24 H REMARKS: (IUCLID)

**PERSISTENCE AND DEGRADABILITY**

BIODEGRADABILITY	AEROBIC - EXPOSURE TIME 28 D RESULT: 74 % - NOT READILY BIODEGRADABLE. (OECD TEST GUIDELINE 301D)
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<b>BIOACCUMULATIVE POTENTIAL</b>	NO DATA AVAILABLE
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<b>MOBILITY IN SOIL</b>	NO DATA AVAILABLE
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<b>RESULTS OF PBT AND VPVB ASSESSMENT</b>	PBT/VPVB ASSESSMENT NOT AVAILABLE AS CHEMICAL SAFETY ASSESSMENT NOT REQUIRED/NOT CONDUCTED
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<b>OTHER ADVERSE EFFECTS</b>	BIOLOGICAL EFFECTS: FORMS TOXIC AND CORROSIVE MIXTURES WITH WATER EVEN IF DILUTED. POSSIBLE DECOMPOSITION PRODUCTS IN CASE OF HYDROLYZIS ARE: HYDROGEN FLUORIDE FURTHER INFORMATION ON ECOLOGY DISCHARGE INTO THE ENVIRONMENT MUST BE AVOIDED.
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**SECTION 13. DISPOSAL CONSIDERATIONS**

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**WASTE TREATMENT METHODS**

<b>PRODUCT</b>	WASTE MATERIAL MUST BE DISPOSED OF IN ACCORDANCE WITH THE NATIONAL AND LOCAL REGULATIONS. LEAVE CHEMICALS IN ORIGINAL CONTAINERS. NO MIXING WITH OTHER WASTE.
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<b>CONTAMINATED PACKAGING</b>	DISPOSE OF AS UNUSED PRODUCT.
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**SECTION 14. TRANSPORT INFORMATION**

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**DOT (US)**

PROPER SHIPPING NAME: BENZOTRIFLUORIDE  
UN NUMBER: 2338  
CLASS: 3  
PACKING GROUP: II  
REPORTABLE QUANTITY  
(RQ):  
POISON INHALATION HAZARD: NO

**IMDG**

PROPER SHIPPING NAME: BENZOTRIFLUORIDE  
UN NUMBER: 2338  
CLASS: 3  
PACKING GROUP: II  
EMS-NO: F-E, S-D  
MARINE POLLUTANT : YES

**IATA**

PROPER SHIPPING NAME: BENZOTRIFLUORIDE  
UN NUMBER: 2338  
CLASS: 3  
PACKING GROUP: II

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**SECTION 15. REGULATORY INFORMATION**

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**SARA 302 COMPONENTS** THIS MATERIAL DOES NOT CONTAIN ANY COMPONENTS WITH A SECTION 302 EHS TPQ.

**SARA 313 COMPONENTS** THIS MATERIAL DOES NOT CONTAIN ANY CHEMICAL COMPONENTS WITH KNOWN CAS NUMBERS THAT EXCEED THE THRESHOLD (DE MINIMIS) REPORTING LEVELS ESTABLISHED BY SARA TITLE III, SECTION 313.

**SARA 311/312 HAZARDS** FIRE HAZARD, CHRONIC HEALTH HAZARD

**MASSACHUSETTS RIGHT TO KNOW COMPONENTS**

	CAS-NO.	REVISION DATE
Benzotrifluoride	98-08-8	03-01-2007

**PENNSYLVANIA RIGHT TO KNOW COMPONENTS**

	CAS-NO.	REVISION DATE
Benzotrifluoride	98-08-8	03-01-2007

**NEW JERSEY RIGHT TO KNOW COMPONENTS**

	CAS-NO.	REVISION DATE
Benzotrifluoride	98-08-8	03-01-2007

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**SECTION 16. OTHER INFORMATION**

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**FULL TEXT OF H-STATEMENTS REFERRED TO UNDER SECTIONS 2 AND 3.**

H225 HIGHLY FLAMMABLE LIQUID AND VAPOR.  
H411 TOXIC TO AQUATIC LIFE WITH LONG LASTING EFFECTS.

**MSDS LEGEND**

MW: MOLECULAR WEIGHT  
MF: MOLECULAR FORMULA  
VOC: VOLATILE ORGANIC COMPOUNDS  
ACGIH: AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGINISTS  
CAS: CHEMICAL ABSTRACTS SERIVE REGISTRY NUMBER  
OSHA: OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION  
PEL: PERMISSIBLE EXPOSURE LIMIT (OSHA)  
TLV: THRESHOLD LIMIT VALUE (ACGIH)

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