BORON TRIFLUORIDE
Material Safety Data Sheet

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name  BORON TRIFLUORIDE
Product Code(s)  G-16, 1043
UN-Number  UN1008
Recommended Use  Compressed gas.

Supplier Address*  Linde Gas North America LLC - Linde Merchant Production Inc. - Linde LLC
575 Mountain Ave.
Murray Hill, NJ 07974
Phone: 908-464-8100
www.lindeus.com

Linde Gas Puerto Rico, Inc.
Las Palmas Village
Road No. 869, Street No. 7
Catano, Puerto Rico 00962
Phone: 787-641-7445
www.pr.lindegas.com

Linde Canada Limited
5860 Chedworth Way
Mississauga, Ontario L5R 0A2
Phone: 905-501-1700
www.lindecanada.com

* May include subsidiaries or affiliate companies/ divisions.

For additional product information contact your local customer service.

Chemical Emergency Phone Number  Chemtrec: 1-800-424-9300 for US/ 703-527-3887 outside US

2. HAZARDS IDENTIFICATION

DANGER!

Emergency Overview

Corrosive
Fatal if inhaled
The product causes burns of eyes, skin and mucous membranes
May adversely affect liver and kidney
Contents under pressure
Keep at temperatures below 52°C / 125°F

Appearance  Colorless  Physical State  Gas.  Odor  Acrid

OSHA Regulatory Status  This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Potential Health Effects

Principle Routes of Exposure
Eye contact. Skin contact. Inhalation.

Acute Toxicity

Inhalation
Fatal if inhaled. Inhalation of corrosive fumes/gases may cause coughing, choking, headache, dizziness, and weakness for several hours. Pulmonary edema may occur with tightness in the chest, shortness of breath, bluish skin, decreased blood pressure, and increased heart rate. Concentrations as low as 50 ppm may cause death from cardiac collapse and complications from fluid retention and swelling in the lung (edema) and chemical pneumonitis.

Eyes
Causes burns. Risk of serious damage to eyes. Persons with potential exposure to boron trifluoride should not wear contact lenses.

Skin
Causes burns. Symptoms may be delayed.

Skin Absorption Hazard
No known hazard by skin absorption.

Ingestion
Not an expected route of exposure. Ingestion causes burns of the upper digestive and respiratory tract.

Chronic Effects
May cause adverse liver and kidney effects

Aggravated Medical Conditions

Environmental Hazard
See Section 12 for additional Ecological Information.

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No</th>
<th>Volume %</th>
<th>Chemical Formula</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boron trifluoride</td>
<td>7637-07-2</td>
<td>&gt;99</td>
<td>BF₃</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

General Advice
Immediate medical attention is required. Show this safety data sheet to the doctor in attendance.

Eye Contact
Immediate medical attention is required. In case of contact with substance, immediately flush eyes with running water for at least 30 minutes. Keep eye wide open while rinsing.

Skin Contact
Immediate medical attention is required. Wash off immediately with soap and plenty of water for at least 30 minutes while removing all contaminated clothing and shoes. Dermal burns may be treated with calcium gluconate gel or slurry in water or glycerine. This compound binds the active fluorides in an insoluble form and limits burn extension and pain.

Inhalation
PROMPT MEDICAL ATTENTION IS MANDATORY IN ALL CASES OF INHALATION OVEREXPOSURE. RESCUE PERSONNEL SHOULD BE EQUIPPED WITH SELF-CONTAINED BREATHING APPARATUS. Conscious inhalation victims should be assisted to an uncontaminated area and inhale fresh air. If breathing is difficult, administer oxygen. Unconscious persons should be moved to an uncontaminated area and, as necessary, given artificial resuscitation and supplemental oxygen. Treatment should be symptomatic and supportive.

Ingestion
Not an expected route of exposure. Immediate medical attention is required. Do NOT induce vomiting. Drink plenty of water. Never give anything by mouth to an unconscious person. Call a physician or Poison Control Center immediately.
Notes to Physician
For dermal exposure, the use of 2.5-33% calcium gluconate or carbonate gel or slurry has been recommended. The gel is either placed into a surgical glove into which the affected extremity is then placed or applied directly on the burn. This compound binds with the active fluorides in an insoluble form and limits burn extension and pain. Calcium chloride should not be used.

Protection of First-aiders
Use personal protective equipment. Avoid contact with skin, eyes and clothing.

5. FIRE-FIGHTING MEASURES

Flammable Properties
Not flammable.

Suitable Extinguishing Media
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Boron trifluoride is water reactive. Use water cautiously as necessary to knock down vapors and cool fire exposed cylinders. Do not use water directly on boron trifluoride as contact can produce toxic hydrogen fluoride, fluoboric acid, boric acid and other similar compounds.

Hazardous Combustion Products
Fluorine compounds. Oxides of boron.

Explosion Data
Sensitivity to Mechanical Impact
None

Sensitivity to Static Discharge
None

Specific Hazards Arising from the Chemical
The product causes burns of eyes, skin and mucous membranes. In the event of fire and/or explosion do not breathe fumes. Do not allow run-off from fire fighting to enter drains or water courses. Runoff may pollute waterways. Cylinders may rupture under extreme heat. Continue to cool fire exposed cylinders until flames are extinguished. Damaged cylinders should be handled only by specialists.

Protective Equipment and Precautions for Firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Corrosive hazard. Wear protective gloves/ clothing and eye/face protection.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions
Evacuate personnel to safe areas. Use personal protective equipment. Keep people away from and upwind of spill/leak. Do not get in eyes, on skin, or on clothing. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

Environmental Precautions
Do not allow material to contaminate ground water system. Should not be released into the environment. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

Methods for Containment
Stop the flow of gas or remove cylinder to outdoor location if this can be done without risk. If leak is in container or container valve, contact the appropriate emergency telephone number in Section 1 or call your closest Linde location.

Methods for Cleaning Up
Return cylinder to Linde or an authorized distributor.

Other Information
Refer to protective measures listed in Sections 7 and 8.
7. HANDLING AND STORAGE

Handling

Dry Boron Trifluoride may be used with mild steel, copper, copper-zinc and copper-silicon alloys, nickel or Monel®. The moist (water) gas is best handled in Mondel®. Fluoride “passivation” is also recommended. Kel-F® and Teflon® are preferred gasketing materials. Use of polyvinyl chloride should be avoided. Mercury containing manometers should not be used since Boron Trifluoride is soluble in mercury.

Keep equipment scrupulously dry. Many of the metal fluorides are water soluble so that the passive film corrosion protection may be destroyed if wetted with water.

Wear personal protective equipment. Avoid contact with skin, eyes and clothing. "NO SMOKING" signs should be posted in storage and use areas.

Use only in ventilated areas. Never attempt to lift a cylinder by its valve protection cap. Protect cylinders from physical damage; do not drag, roll, slide or drop. Use equipment rated for cylinder pressure. Use backflow preventive device in piping. Never insert an object (e.g. wrench, screwdriver, pry bar, etc.) into valve cap openings. Doing so may damage valve, causing leak to occur.

Use an adjustable strap wrench to remove over-tight or rusted caps. Close valve after each use and when empty. If user experiences any difficulty operating cylinder valve discontinue use and contact supplier.

Never put cylinders into trunks of cars or unventilated areas of passenger vehicles. Never attempt to refill a compressed gas cylinder without the owner’s written consent. Never strike an arc on a compressed gas cylinder or make a cylinder a part of an electrical circuit.

Storage

Protect from physical damage. Cylinders should be stored upright with valve protection cap in place and firmly secured to prevent falling. Store in a cool, dry area away from potential sources of heat, open flames, sunlight or other chemicals. Keep at temperatures below 52°C / 125°F. Full and empty cylinders should be segregated. Use a "first in-first out" inventory system to prevent full cylinders from being stored for excessive periods of time. Always store and handle compressed gas cylinders in accordance with Compressed Gas Association, pamphlet CGA-P1, Safe Handling of Compressed Gases in Containers.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>NIOSH IDLH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boron trifluoride</td>
<td>TWA: 2.5 mg/ m³ F (vacated)</td>
<td>TWA: 2.5 mg/ m³ F (vacated)</td>
<td>IDLH: 25 ppm</td>
</tr>
<tr>
<td>7637-07-2</td>
<td>Ceiling: 1 ppm</td>
<td>Ceiling: 1 ppm</td>
<td>Ceiling: 1 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ceiling: 3 mg/ m³ Ceiling: 1 ppm</td>
<td>Ceiling: 3 mg/ m³ Ceiling: 1 ppm</td>
</tr>
</tbody>
</table>

Immediately Dangerous to Life or Health.

Other Exposure Guidelines

Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Engineering Measures

Showers. Eyewash stations. Ventilation systems. Exhaust gas should be vented to a gas treatment system.

Ventilation

Use ventilation adequate to keep exposures below recommended exposure limits.

Personal Protective Equipment

[Summary or details of personal protective equipment requirements for handling Boron Trifluoride]
Eye/ Face Protection

Tightly fitting safety goggles. Face-shield.

Skin and Body Protection

Appropriate protective and chemical resistant gloves, clothing and splash protection, or fully encapsulating vapor protective clothing to prevent exposure. For materials of construction consult protective clothing manufacturer's specifications.

Respiratory Protection

General Use

If exposure limits are exceeded or irritation is experienced, NIOSH/ MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

Emergency Use

Use positive pressure airline respirator with escape cylinder or self contained breathing apparatus for oxygen-deficient atmospheres (<19.5%).

Hygiene Measures

When using, do not eat, drink or smoke. Remove and wash contaminated clothing before re-use. Keep away from food, drink and animal feeding stuffs. Contaminated work clothing should not be allowed out of the workplace. Provide regular cleaning of equipment, work area and clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Colorless</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>1.5 ppm</td>
</tr>
<tr>
<td>Flash Point</td>
<td>No information available.</td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>No information available.</td>
</tr>
<tr>
<td>Freezing Point</td>
<td>-128.7 °C / -199.7 °F</td>
</tr>
<tr>
<td>Water Solubility</td>
<td>Very soluble, Hydrolyzes</td>
</tr>
<tr>
<td>Vapor Pressure, @ 21.1°C (70°F)</td>
<td>19.1</td>
</tr>
<tr>
<td>Gas Density, @ 21.1°C (70°F)</td>
<td>3.072 kg/ m³ (0.192 lb./ ft³)</td>
</tr>
<tr>
<td>Specific Vol. @ 21.1°C &amp; 1 atm</td>
<td>5.6 lb/ ft³</td>
</tr>
<tr>
<td>Critical Temperature</td>
<td>-12.2 °C / 10.04°F</td>
</tr>
<tr>
<td>Odor</td>
<td>Acrid.</td>
</tr>
<tr>
<td>Physical State</td>
<td>Gas</td>
</tr>
<tr>
<td>Autoignition Temperature</td>
<td>No information available.</td>
</tr>
<tr>
<td>Boiling Point/ Boiling Range</td>
<td>-100.3 °C / -148.54 °F</td>
</tr>
<tr>
<td>Molecular Weight</td>
<td>67.805</td>
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<tr>
<td>Evaporation Rate</td>
<td>No information available</td>
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<tr>
<td>Vapor Density</td>
<td>2.38 (air = 1)</td>
</tr>
<tr>
<td>VOC Content (%)</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Critical Pressure</td>
<td>723.0 psia</td>
</tr>
<tr>
<td>Flammability Limits in Air</td>
<td></td>
</tr>
<tr>
<td>Upper</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Lower</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

Stability

Stable under recommended storage conditions.

Incompatible Products


Conditions to Avoid

Contact with water or moist air liberates irritating gas. Catalyst for many polymerization reactions.

Hazardous Decomposition Products

Boron compounds. Fluorine compounds.

Hazardous Polymerization

Hazardous polymerization does not occur.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

LD50 Oral: No information available.
LD50 Dermal:  
No information available.

LC50 Inhalation:  
Per CGA P-20: LC50: 806 ppm (Rat) (1 hr. time adjusted)

Inhalation  
The 4 hour LC50 for rats was reported to be 436 ppm for boron trifluoride dihydrate, a related compound formed via hydrolysis in moist air.

Repeated Dose Toxicity  
Rats exposed to 67 ppm for 6 hours/ day (two week study) died before the sixth daily exposure. Histopathology showed kidney damage. Depressed body weight, increased lung weight, and depressed liver weight were seen in rats exposed 6 hour/ day at 24 ppm or 9 ppm for 2 weeks.

Renal toxicity was observed in 2 of 40 rats exposed to 6 ppm boron trifluoride, 6 H/ day, 5 days/ week for 13 weeks. Fluorosis and pneumonitis was seen in rats, rabbits and guinea pigs exposed 5 days/ week for up to 6 months to 12.8 ppm and 3.4 ppm. Marginal evidence of pneumonitis was seen in animals exposed to 1.5 ppm concentrations in this study.

Chronic Toxicity  
May cause adverse liver and kidney effects.

Carcinogenicity  
Contains no ingredient listed as a carcinogen.

Irritation  
No information available.

Sensitization  
No information available.

Reproductive Toxicity  
No information available.

Developmental Toxicity  
No information available.

Synergistic Materials  
None known.

Target Organ Effects  

12. ECOLOGICAL INFORMATION

Ecotoxicity  
Harmful to aquatic organisms.

Ozone depletion potential; ODP; (R-11 = 1): Does not contain ozone depleting chemical (40 CFR Part 82).

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Toxicity to Algae</th>
<th>Toxicity to Fish</th>
<th>Toxicity to Microorganisms</th>
<th>Daphnia Magna (Water Flea)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boron trifluoride</td>
<td></td>
<td>LC50 24 h: = 15000 mg/ L static (Lepomis macrochirus)</td>
<td></td>
<td>EC50 48 h: = 21.3 mg/ L (Daphnia magna)</td>
</tr>
</tbody>
</table>

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods  
Do not attempt to dispose of residual waste or unused quantities. Return in the shipping container PROPERLY LABELED WITH ANY VALVE OUTLET PLUGS OR CAPS SECURED AND VALVE PROTECTION CAP IN PLACE to Linde for proper disposal.
14. TRANSPORT INFORMATION

**DOT**

<table>
<thead>
<tr>
<th>Proper shipping name</th>
<th>Boron trifluoride</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hazard Class</td>
<td>2.3</td>
</tr>
<tr>
<td>Subsidiary Class</td>
<td>8</td>
</tr>
<tr>
<td>UN-Number</td>
<td>UN1008</td>
</tr>
<tr>
<td>Special Provisions</td>
<td>This material is toxic by inhalation in Hazard Zone B. UN1008,Boron trifluoride,2.3,(8)</td>
</tr>
<tr>
<td>Description</td>
<td>&quot;Toxic-Inhalation Hazard Zone B&quot;. If net weight of product is greater than or equal to 250 lbs., the shipping description must also contain the letters &quot;RQ&quot;.</td>
</tr>
<tr>
<td>Additional Description:</td>
<td>&quot;Inhalation Hazard&quot;. If net weight of product is greater than or equal to 250 lbs., the container must also be marked with the letters &quot;RQ&quot;.</td>
</tr>
</tbody>
</table>

**TDG**

<table>
<thead>
<tr>
<th>Proper Shipping Name</th>
<th>Boron trifluoride, compressed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hazard Class</td>
<td>2.3</td>
</tr>
<tr>
<td>Subsidiary Class</td>
<td>(8)</td>
</tr>
<tr>
<td>UN-Number</td>
<td>UN1008</td>
</tr>
<tr>
<td>Description</td>
<td>UN1008,BORON TRIFLUORIDE, COMPRESSED,2.3(8)</td>
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</tbody>
</table>

**MEX**

<table>
<thead>
<tr>
<th>Proper Shipping Name</th>
<th>Boron trifluoride</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hazard Class</td>
<td>2.3</td>
</tr>
<tr>
<td>Subsidiary Class</td>
<td>8</td>
</tr>
<tr>
<td>UN-Number</td>
<td>UN1008</td>
</tr>
<tr>
<td>Description</td>
<td>UN1008 Boron trifluoride,2.3</td>
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</table>

**IATA**

<table>
<thead>
<tr>
<th>UN-Number</th>
<th>UN1008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proper Shipping Name</td>
<td>Boron trifluoride</td>
</tr>
<tr>
<td>Hazard Class</td>
<td>2.3</td>
</tr>
<tr>
<td>Subsidiary Class</td>
<td>8</td>
</tr>
<tr>
<td>Description</td>
<td>2CP</td>
</tr>
<tr>
<td>Maximum Quantity for Passenger</td>
<td>Forbidden</td>
</tr>
<tr>
<td>Maximum Quantity for Cargo Only</td>
<td>Forbidden</td>
</tr>
<tr>
<td>Limited Quantity</td>
<td>No information available.</td>
</tr>
</tbody>
</table>

**IMDG/IMO**

<table>
<thead>
<tr>
<th>Proper Shipping Name</th>
<th>Boron trifluoride</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hazard Class</td>
<td>2.3</td>
</tr>
<tr>
<td>Subsidiary Class</td>
<td>8</td>
</tr>
<tr>
<td>UN-Number</td>
<td>UN1008</td>
</tr>
<tr>
<td>EmS No.</td>
<td>F-C, S-U</td>
</tr>
<tr>
<td>Description</td>
<td>UN1008, Boron trifluoride,2.3(8)</td>
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**ADR**

<table>
<thead>
<tr>
<th>Proper Shipping Name</th>
<th>Boron trifluoride</th>
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</thead>
<tbody>
<tr>
<td>Hazard Class</td>
<td>2.3</td>
</tr>
<tr>
<td>Subsidiary Class</td>
<td>8</td>
</tr>
<tr>
<td>UN-Number</td>
<td>UN1008</td>
</tr>
<tr>
<td>Description</td>
<td></td>
</tr>
</tbody>
</table>

Contaminated Packaging

Do not re-use empty containers.
15. REGULATORY INFORMATION

International Inventories

<table>
<thead>
<tr>
<th>TSCA</th>
<th>Complies</th>
</tr>
</thead>
<tbody>
<tr>
<td>DSL</td>
<td>Complies</td>
</tr>
<tr>
<td>EINECS/ ELINCS</td>
<td>Complies</td>
</tr>
</tbody>
</table>

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

U.S. Federal Regulations

SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No</th>
<th>SARA 313 - Threshold Values %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boron trifluoride</td>
<td>7637-07-2</td>
<td>1.0</td>
</tr>
</tbody>
</table>

SARA 311/312 Hazard Categories

Acute Health Hazard  Yes
Chronic Health Hazard Yes
Fire Hazard          No
Sudden Release of Pressure Hazard Yes
Reactive Hazard      No

Clean Water Act
This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

Risk and Process Safety Management Programs
This material, as supplied, contains one or more regulated substances with specified thresholds under 40 CFR Part 68 or regulated as a highly hazardous chemical pursuant to the 29 CFR Part 1910.110 with specified thresholds:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>U.S. - CAA (Clean Air Act) - Accidental Release Prevention - Toxic Substances</th>
<th>U.S. - CAA (Clean Air Act) - Accidental Release Prevention - Flammable Substances</th>
<th>U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boron trifluoride</td>
<td>5000 lbs</td>
<td></td>
<td>250 lb</td>
</tr>
</tbody>
</table>

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)
This product does not contain any substances regulated as hazardous air pollutants (HAPS) under Section 112 of the Clean Air Act Amendments of 1990.
CERCLA/ SARA
This material, as supplied, contains one or more substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355):

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Hazardous Substances RQs</th>
<th>Extremely Hazardous Substances RQs</th>
<th>TPQ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boron trifluoride</td>
<td></td>
<td>500 lb</td>
<td>500 lb TPQ</td>
</tr>
</tbody>
</table>

U.S. State Regulations

California Proposition 65
This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Massachusetts</th>
<th>New Jersey</th>
<th>Pennsylvania</th>
<th>Illinois</th>
<th>Rhode Island</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boron trifluoride</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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</tbody>
</table>

International Regulations

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Carcinogen Status</th>
<th>Exposure Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boron trifluoride</td>
<td></td>
<td>Mexico: Ceiling 1 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mexico: Ceiling 3 mg/ m³</td>
</tr>
</tbody>
</table>

Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

WHMIS Hazard Class
E  Corrosive material
A  Compressed gases
D1A Very toxic materials

Legend
NPRI - National Pollutant Release Inventory
Note: Ratings were assigned in accordance with Compressed Gas Association (CGA) guidelines as published in CGA Pamphlet P-19-2009, CGA Recommended Hazard Ratings for Compressed Gases, 3rd Edition.

General Disclaimer
For terms and conditions, including limitation of liability, please refer to the purchase agreement in effect between Linde LLC, Linde Merchant Production, Inc. or Linde Gas North America LLC (or any of their affiliates and subsidiaries) and the purchaser.

DISCLAIMER OF EXPRESSED AND IMPLIED WARRANTIES
Although reasonable care has been taken in the preparation of this document, we extend no warranties and make no representations as to the accuracy or completeness of the information contained herein, and assume no responsibility regarding the suitability of this information for the user's intended purposes or for the consequences of its use. Each individual should make a determination as to the suitability of the information for their particular purpose(s).

End of Safety Data Sheet