



September 2005

NIOSH Publication Number 2005-149

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<h1>Diborane</h1>					
Synonyms & Trade Names Boroethane, Boron hydride, Diboron hexahydride					
CAS No. 19287-45-7	RTECS No. HQ9275000		DOT ID & Guide 1911 119		
Formula B ₂ H ₆	Conversion 1 ppm = 1.13 mg/m ³		IDLH 15 ppm See: 19287457		
Exposure Limits NIOSH REL : TWA 0.1 ppm (0.1 mg/m ³) OSHA PEL : TWA 0.1 ppm (0.1 mg/m ³)			Measurement Methods NIOSH 6006 See: NMAM or OSHA Methods		
Physical Description Colorless gas with a repulsive, sweet odor. [Note: Usually shipped in pressurized cylinders diluted with hydrogen, argon, nitrogen, or helium.]					
MW: 27.7	BP: -135°F	FRZ: -265°F	Sol: Reacts	VP(62°F): 39.5 atm	IP: 11.38 eV
	FLP: NA (Gas)	UEL: 88%	LEL: 0.8%	RGasD: 0.97	
Flammable Gas					
Incompatibilities & Reactivities Water, halogenated compounds, aluminum, lithium, oxidized surfaces, acids [Note: Will ignite spontaneously in moist air at room temperature. Reacts with water to form hydrogen & boric acid.]					
Exposure Routes inhalation					
Symptoms Chest tightness, precordial pain, short breath, nonproductive cough, nausea; headache, dizziness, chills, fever, lassitude (weakness, exhaustion), tremor, muscle fasciculation; in animals: liver, kidney damage; pulmonary edema; hemorrhage					
Target Organs respiratory system, central nervous system, liver, kidneys					

Personal Protection/Sanitation (See protection codes)**Skin:** No recommendation**Eyes:** No recommendation**Wash skin:** No recommendation**Remove:** No recommendation**Change:** No recommendation**First Aid** (See procedures)**Breathing:** Respiratory support**Respirator Recommendations****NIOSH/OSHA****Up to 1 ppm:**

(APF = 10) Any supplied-air respirator

Up to 2.5 ppm:

(APF = 25) Any supplied-air respirator operated in a continuous-flow mode

Up to 5 ppm:

(APF = 50) Any supplied-air respirator that has a tight-fitting facepiece and is operated in a continuous-flow mode

(APF = 50) Any self-contained breathing apparatus with a full facepiece

(APF = 50) Any supplied-air respirator with a full facepiece

Up to 15 ppm:

(APF = 1000) Any supplied-air respirator operated in a pressure-demand or other positive-pressure mode

Emergency or planned entry into unknown concentrations or IDLH conditions:

(APF = 10,000) Any self-contained breathing apparatus that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode

(APF = 10,000) Any supplied-air respirator that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary self-contained positive-pressure breathing apparatus

Escape:

(APF = 50) Any air-purifying, full-facepiece respirator (gas mask) with a chin-style, front- or back-mounted canister providing protection against the compound of concern

Any appropriate escape-type, self-contained breathing apparatus

Important additional information about respirator selectionSee also: [INTRODUCTION](#) See ICSC CARD: [0432](#) See MEDICAL TESTS: [0069](#)

Page last reviewed: February 3, 2009

Page last updated: February 3, 2009

Content source: [National Institute for Occupational Safety and Health \(NIOSH\)](#) Education and Information Division

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