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**MATERIAL SAFETY DATA SHEET**

**GEBAUER'S PAIN EASE<sup>®</sup>**

**I. PRODUCT IDENTIFICATION**

TRADE NAME GEBAUER'S PAIN EASE SYNONYM	Current Issue Date: July 28, 2008
CHEMICAL NAME 1,1,1,3,3-PENTAFLUOROPROPANE SYNONYMS 1,1,1,2-TETRAFLUOROETHANE	Chemical Family. Halogenated Hydrocarbon
FORMULA	CHF <sub>2</sub> CH <sub>2</sub> CF <sub>3</sub> \ F <sub>3</sub> CCH <sub>2</sub> F,

**II. COMPOSITION/INFORMATION ON INGREDIENTS**

Ingredient	CAS NO.	Concentration	OSHA PEL	ACGIH TLV-TWA
1,1,1,3,3-PENTAFLUOROPROPANE	460-73-1	95%	None	None
1,1,1,2-TETRAFLUOROETHANE	811-97-1	5%	None	None

**III. HAZARDS IDENTIFICATION**

Health Rating	2
Flammability Rating	0
Reactivity Rating	1
Special Rating	None
Lab Protective Equipment	Neoprene, PVA, or Butyl Rubber gloves, labcoat, goggles or face shield, vent hood.

<b>Inhalation</b>	When oxygen levels in air are reduced to 12-14% by displacement, symptoms of asphyxiation, loss of coordination, increased pulse rate and deeper respiration will occur. At high levels, cardiac arrhythmia may occur.
<b>Ingestion</b>	Unlikely route of exposure due to gaseous nature. Discomfort due to volatility would be expected.
<b>Skin Contact</b>	Over application could cause frostbite. Liquid contact is non-irritating.
<b>Eye Contact</b>	Liquid contact can cause irritation and frostbite.
<b>Delayed Effects</b>	None Known

**IV. FIRST AID MEASURES**

<b>Inhalation</b>	Immediately remove patient to fresh air. If breathing has stopped, give artificial respiration. Use oxygen as required, provided a qualified operator is available. <b>DO NOT</b> give epinephrine (adrenaline). Get medical attention immediately.
<b>Ingestion</b>	Unlikely route of exposure due to gaseous nature. <b>DO NOT</b> induce vomiting unless instructed to do so by a physician. <b>DO NOT</b> give stimulants. Get medical attention immediately.
<b>Skin Contact</b>	If there is evidence of frostbite seek medical attention.
<b>Eye Contact</b>	Immediately flush eyes with copious amounts of water for at least 15 minutes (in case of frostbite water should be lukewarm, not hot) lifting lids occasionally to facilitate irrigation. Get medical attention.

**V. FIRE FIGHTING MEASURES**

Flash point - None	Autoignition temperature - Unknown	Flammable Limits In Air (%by volume) - Nonflammable
Special Fire Fighting Procedures: Fire fighters should wear self-contained, NIOSH approved breathing apparatus for protection against possible toxic decomposition products. Proper eye and skin protection should be provided. Use spray to keep fire-exposed containers cool.		
Unusual Fire and Explosion Hazards: Not flammable at ambient temperatures and atmospheric pressure. However this material will become combustible when mixed with air under pressure and exposed to strong ignition sources contact with certain reactive metals may result in formation of explosive or exothermic reactions under specific conditions (e.g. very high temperatures and/or appropriate pressures).		

**VI. ACCIDENTAL RELEASE MEASURES**

Spill and Leak Response: Evacuate unprotected personnel. Protected personnel should eliminate all sources of ignition and shut off leak, if without risk, and provide ventilation.
Waste Disposal Method: Comply with federal, state and local laws.

**VII. HANDLING AND STORAGE**

Storage Precautions Store in cool, dry, well ventilated area of low fire risk. Protect against physical damage. Do not subject to temperatures above 120°F (50°C).
Usage and Handling Precautions Use in well-ventilated areas. Do not use near temperatures above 120°F (50°C).

**VIII. EXPOSURE CONTROLS – PERSONAL PROTECTION**

Engineering Controls	Provide local ventilation at filling zones and where leakage is probable. Use with adequate ventilation.
Respiratory Protection	None generally required for adequately ventilated work situations. For accidental release in confined space, where the concentration may be above the PEL of 1,000 ppm, use a NIOSH approved, self contained, positive pressure respirator for emergencies and in situations where air may be displaced by vapors.
Skin Protection	Use protective, impervious gloves and clothing made of neoprene, nitrile or butyl rubber if prolonged or repeated contact with

