



# PROPEL, PROPEL-15 BADGER PROPELLANT

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## SECTION I - PRODUCT IDENTIFICATION

Product Name: PROPEL, PROPEL-15 BADGER PROPELLANT

Revision: 02/03/00

## SECTION II - HAZARDOUS INGREDIENTS & OTHER COMPONENTS

INGREDIENT CHEMICAL NAME	OSHA PEL	ACGIH TLV	OTHER LIMITS RECOMMENDED	CAS NUMBER
1,1 Difluoroethane	NE	NE		75-37-6
Butane	800ppm	800ppm		106-97-8

## SECTION III - PHYSICAL DATA / CONTENTS WITHOUT PROPELLANT

BOILING POINT: -11°F

SPECIFIC GRAVITY (H<sub>2</sub>O=1): <1

VAPOR PRESSURE (mm Hg): 53-57 @ 130°F

MELTING POINT: N/A

VAPOR DENSITY (AIR = 1): >1

EVAPORATION RATE (Butyl Acetate = 1): <1

SOLUBILITY IN WATER: Negligible

APPEARANCE AND ODOR: Clear, water white liquid with a sweet odor.

## SECTION IV: FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (METHOD USED):

N/A

FLAMMABLE LIMITS

LEL: 4.0 UEL: 17.0

**EXTINGUISHING MEDIA:** WATER FOG STANDARD FOAM x CO<sub>2</sub> x  
 DRY CHEMICAL x HALON

**UNUSUAL FIRE AND EXPLOSION HAZARDS:** At elevated temperatures (over 54°C-130°F) containers exposed to direct flame or heat contact should be cooled with water to prevent weakening of container structure.

**SPECIAL PRECAUTIONARY STATEMENTS:** Containers should be cooled with water to prevent vapor pressure build up. Use equipment or shielding, as required, to protect personnel from bursting, rupturing or venting containers.

#### SECTION V: REACTIVITY DATA

**STABILITY:** x Stable Unstable

**Incompatibility :** Alkali or alkaline earth metals.

**Hazardous Decomposition:** Hydrofluoric acid, carbonyl fluoride, oxides of carbon and additional toxic chemicals may be formed in small amounts.

**HAZARDOUS POLYMERIZATION:** May Occur Will not occur

**Conditions to Avoid:** Do not store above 54°C-130°F. Keep away from heat, direct sunlight, open flames or sparks. Dropping of containers may cause bursting.

#### SECTION VI: HEALTH HAZARD DATA

##### ROUTES OF ENTRY & HEALTH HAZARDS (ACUTE AND CHRONIC)

**INGESTION:** N/A

**EYES:** May cause freezing or frostbite

**INHALATION:** Overexposure by inhalation may cause nausea, headache, or temporary nervous system depression with anesthetic effects such as dizziness, confusion, and loss of consciousness.

**SKIN:** May cause freezing or frostbite.

#### **EMERGENCY AND FIRST AID PROCEDURES**

**INGESTION:** Seek medical attention. Not considered a potential route of exposure.

**EYES:** Flush eyes with large amounts of water for 15 minutes while holding eyelids open. Seek medical attention.

**INHALATION:** Remove victim to fresh air and provide oxygen if breathing is difficult. Give artificial respiration if not breathing. Seek medical attention.

**SKIN:** Flush skin with water. Treat for frostbite if necessary by gently warming affected area. Seek medical attention.

#### **SECTION VII: PRECAUTIONS FOR SAFE HANDLING AND USE**

##### **STEPS TO BE TAKEN IN CASE**

**LARGE AMOUNTS ARE  
RELEASED:** Remove all sources of ignition and provide good ventilation.

**WASTE DISPOSAL METHOD:** Do not puncture or incinerate containers. When contents are depleted continue to depress button until all gas is expelled. Dispose of container in accordance with local, state, and federal regulations.

**PRECAUTIONS TO BE TAKEN IN  
HANDLING AND STORAGE:** Avoid breathing vapor. Keep away from heat and flam. Use with adequate ventilation. Do not puncture or incinerate containers. Do not expose to direct sunlight or store at temperatures above 130°F. Store as Level 3 Aerosol (NFPA 30B).

**OTHER PRECAUTIONS:** Please read and follow the directions on the product label; they are your best guide to using this product in the most effective way, and give the necessary safety precautions to protect your health.

#### **SECTION VIII: CONTROL MEASURES**

**RESPIRATORY PROTECTION:** None required if good ventilation is maintained. If exposure exceeds occupational exposure limits, use NIOSH approved respirator to prevent overexposure.

**VENTILATION:** Local exhaust is adequate under normal conditions, mechanical ventilation is optional.

**LOCAL EXHAUST:**

**PROTECTIVE GLOVES:** Optional: Chemical resistant gloves.

**EYE PROTECTION:** Chemical safety glasses are recommended.

**SECTION IX: SPECIAL PRECAUTIONS**

<b>HEALTH: 1</b>	<b><u>HAZARD RATING KEY</u></b>
<b>FLAMMABILITY:</b>	0 = MINIMAL
<b>REACTIVITY: 1</b>	1 = SLIGHT
<b>PERSONALPROTECTION:</b>	2 = MODERATE
	3 = SERIOUS
	4 = SEVERE
	* = CHRONIC HEALTH EFFECTS

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