

MATERIAL SAFETY DATA SHEET

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PREVAL SPRAY GUN POWER UNIT

1. Product And Company Identification	
Supplier Precision Valve Corporation 700 Nepperhan Avenue Yonkers,, NY 10703 Telephone Number: 914-969-6500 FAX Number: 914-966-4618	Manufacturer Precision Valve Corporation 700 Nepperhan Avenue Yonkers,, NY 10703 Telephone Number: 914-969-6500 FAX Number: 914-966-4618
Supplier Emergency Contacts & Phone Number Emergency Telephone Number: 914-969-6500	Manufacturer Emergency Contacts & Phone Number Emergency Telephone Number: 914-969-6500
Issue Date: 01/10/2006 Product Name: PREVAL SPRAY GUN POWER UNIT Chemical Name: propane / isobutane / dimethyl ether Chemical Family: hydrocarbon/ether mixture Chemical Formula: C3H8 + (CH3)2CHCH3 + CH3OCH3 MSDS Number: 818	

2. Composition/Information On Ingredients			
Ingredient Name	CAS Number		Percent Of Total Weight
dimethyl ether	115-10-6		50
isobutane	75-28-5		28.5
propane	74-98-6		21.5

EMERGENCY OVERVIEW

DANGER! EXTREMELY FLAMMABLE. Keep away from heat, spark, open flame and other sources of ignition. Vapors from liquefied gas will be easily ignited. Will form explosive mixtures in air. Vapors may travel to a distant source of ignition and flash back. Containers may explode when heated. Prolonged storage and exposure to air may form explosive peroxides. Vapors may cause dizziness, mental confusion and asphyxiation without warning. May be irritating at high concentrations. Direct contact of the liquefied product with the skin or eyes may cause frostbite leading to permanent skin and eye damage.

Hazards Identification (Pictograms)



3. Hazards Identification
Primary Routes(s) Of Entry Inhalation, Skin, Eyes
Eye Hazards Vapors are not expected to be irritating at low concentrations. High concentrations may be irritating. Contact with liquefied product may cause freeze burns and frostbite resulting in permanent eye damage or blindness.
Skin Hazards Direct skin contact with liquefied product may cause freeze burns and frostbite leading to permanent skin damage. Symptoms of mild frostbite include numbness, prickling and itching in the affected area. Symptoms of more severe frostbite include a burning sensation and stiffness of the area. The skin may become waxy white or yellow. Blistering, tissue death and gangrene may also develop in severe cases.
Ingestion Hazards Ingestion is considered very unlikely due to the physical (gaseous) form of the product under normal conditions of use. However, intentional ingestion of liquefied product may cause freeze burns and frostbite. Swallowing of liquefied product may also cause lung damage due to aspiration hazard.

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3. Hazards Identification - Continued

Inhalation Hazards

Vapors and gas may be irritating to the nose and throat at high concentrations. Vapors/gas may cause anesthetic effects and depression of the central nervous system (CNS). Symptoms include headache, dizziness, drowsiness and mental confusion. Unconsciousness and death may occur at extremely high concentrations due to CNS depression. Displacement of oxygen and asphyxiation may occur in confined areas

4. First Aid Measures

Eye

In case of liquid contact, immediately flush eyes with plenty of water for at least 15 minutes. Consult a physician immediately if irritation or frostbite occurs.

Skin

In case of liquid contact, warm areas gradually and get medical attention if there is evidence of tissue damage. Treat for frostbite. Do not rub the affected area. In case of skin irritation, wash affected area with soap and water. Consult a physician if irritation or redness develops.

Ingestion

DO NOT INDUCE VOMITING. Call a physician or a poison control center immediately. If person is conscious, have the person drink water or milk. Never give anything by mouth to an unconscious victim.

Inhalation

Remove person from exposure to fresh air. If breathing has stopped, clear the airway and administer artificial respiration. If breathing is difficult, administer oxygen. Get medical attention immediately.

Fire Fighting (Pictograms)



5. Fire Fighting Measures

Flash Point: est. -156 °F

Lower Explosive Limit: 1.8% (by vol.)

Upper Explosive Limit: 18% (by vol.)

Fire And Explosion Hazards

Extremely flammable gas under pressure. Gas is heavier than air and may spread long distances along the ground or by ventilation systems. Distant ignition and flash back may occur from pilot lights, open flames, sparks, heaters, smoking, electrical motors, static discharge or other ignitions sources. Confined vapor and containers may explode if heated in fire. Do not attempt to puncture, cut or reuse the container.

Extinguishing Media

Use dry chemical, CO2 or foam extinguisher. Use water spray or fog to cool fire-exposed containers.

Fire Fighting Instructions

Evacuate personnel from general area. Eliminate all ignition sources (e.g., no flares, flames, smoking) in the area. Wear self-contained breathing apparatus, and thermal protective clothing if handling leaking product. If possible and safe to do so, stop the release of material or move product away from fire. Expansion of liquid to vapor or gas will allow flammable mixtures with air to encompass a larger area than that of the product alone. Fight fire from a distance or use unmanned hose holders or monitor nozzles. Do not touch or walk through spilled material. Cool the vapor space of the storage container with flooding amounts of water spray. Avoid accumulation of unburned materials. Avoid runoff to sewers and waterways.

6. Accidental Release Measures

Eliminate all ignition sources. Evacuate all personnel from the general area. Do not touch or walk through spilled material. If safe to do so, stop the leak. Provide maximum explosion-proof exhaust or dilution ventilation. For large spills, use water spray or foam to reduce vapors. For small spills of liquid, use inert absorbent materials, such as sand or clay, to pick up, keeping in mind that the absorbents may become flammable after absorption. Use appropriate personal protective equipment (PPE) at all times.

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Handling & Storage (Pictograms)



7. Handling And Storage

Handling Precautions

Wash thoroughly after handling. Avoid contact with eyes, skin and clothing. Do not ingest or inhale. Use only with adequate ventilation.

Storage Precautions

Store containers in a clean, cool, dry, well-ventilated area away from heat, spark, flame and other sources of ignition. Do not heat above 130F (50C). No smoking. Avoid sunlight. Do not puncture, cut or reuse containers. Do not use or store with incompatible materials, such as strong oxidizers. Certain components of this product may form friction and shock sensitive peroxides. Avoid prolonged storage of the product

Protective Clothing (Pictograms)



8. Exposure Controls/Personal Protection

Engineering Controls

Use product with adequate ventilation. For bulk storage, adequate general and local exhaust ventilation is recommended. Local exhaust systems should be equipped with non-sparking motors rated for flammable atmospheres.

Eye/Face Protection

Safety glasses with side shields, goggles or faceshield are recommended. Safety glasses should be worn under faceshields.

Skin Protection

Wear appropriate protective clothing to prevent skin contact. Use with chemical-resistant, thermally-insulated gloves, and impervious chemical protective clothing in case of emergencies or prolonged repeated contact.

Respiratory Protection

None required for normal use. In case of emergencies, use a NIOSH-approved self-contained breathing apparatus (SCBA).

Ingredient(s) - Exposure Limits

dimethyl ether

No exposure limits established by ACGIH or OSHA

isobutane

No exposure limits established by ACGIH or OSHA

NIOSH REL-TWA: 800 ppm

propane

ACGIH TLV-TWA: 1000 ppm

OSHA PEL-TWA: 1000 ppm

9. Physical And Chemical Properties

Appearance

A clear, colorless liquefied gas

Odor

Slight ethereal odor

Chemical Type: Mixture

Physical State: Liquid

Boiling Point: -44 to +10.9 °F

Specific Gravity: 0.6

Percent Volatiles: 100%

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9. Physical And Chemical Properties - Continued

Odor - Continued

Vapor Pressure: 76 PSIG @ 70 deg F

Vapor Density: 1.8

Solubility: 3.5%

Evaporation Rate: >1 (ethyl ether=1)

10. Stability And Reactivity

Stability: Stable

Hazardous Polymerization: Will not occur

Conditions To Avoid (Stability)

Contents under pressure (aerosol can). Exposure to heat in excess of 130F (50F) may cause cans to burst. Avoid heat, spark, open flame and other ignition sources during use and storage.

Incompatible Materials

Strong oxidizing agents (e.g., peroxides, perchlorates), oxygen, acetic acid, halogens (e.g., chlorine, bromine, fluorine), some metals. Some incompatible mixture reactions may result vigorous or even explosive reactions.

Hazardous Decomposition Products

Reacts slowly with air to form friction and shock-sensitive peroxides, such as t-butylhydroperoxide. These compounds are unstable oxidizers which decompose violently or even explosively when heated. The rate of peroxide formation increases on exposure to heat, light and prolonged exposure to air. Corrosive and irritating compounds may also be evolved under fire conditions.

11. Toxicological Information

Acute Inhalation Effects

Aliphatic hydrocarbons, such as isobutane and propane, are weak cardiac sensitizers at high concentrations. Cardiac sensitizers may cause sudden onset of irregular heartbeat (arrhythmia), and in some cases, sudden death. Sudden death has been reported in cases of substance abuse to aliphatic hydrocarbons under stressful conditions and at high concentrations.

Chronic/Carcinogenicity

Neither the product overall nor any of its ingredients are known to be listed as potentially carcinogenic by NTP, IARC, OSHA or ACGIH.

12. Ecological Information

Environmental Fate Information

The constituents of this product are expected to exist solely as vapor or gas in the atmosphere. Gas-phase ingredients will be degraded in the atmosphere. Releases to soil are expected to have a very high mobility. Releases to dry soil will volatilize quickly due to its high vapor pressure. Thus, it is not expected to adsorb to suspended solids and sediment in water. Biodegradation is expected to be slow in both soil and water.

13. Disposal Considerations

Dispose in accordance with applicable federal, state and local government regulations. Dispose of unused material as hazardous waste.

RCRA Information

Waste product may meet the RCRA Ignitable characteristic.

14. Transport Information

Truck/Vehicle (DOT):

Proper Shipping Name - Consumer Commodity

Hazard Class - ORM-D

UN ID - N/A

Packing Group - N/A

Shipping Label - None. Cartons are marked: Consumer Commodity, ORM-D

Limitations - None

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14. Transport Information - Continued

Aircraft (IATA):

Proper Shipping Name - Consumer Commodity

Hazard Class - 9

UN ID - ORM-D (Domestic), ID8000 (International)

Packing Group - N/A

Shipping Label - ORM-D-Air (Domestic); Class 9 diamond on carton (International)

Limitations - 30 kg gross weight

Ship:

Proper Shipping Name - Aerosols, Flammable

Hazard Class - 2.1

UN ID - UN1950

Packing Group - N/A

Shipping Label - Class 2, Flammable Gas diamond on outer container

Limitations - Stowage Location A

DOT (Pictograms)



ADR - Europe (Pictograms)



15. Regulatory Information

U.S. Regulatory Information

Toxic Substance Control Act (TSCA): All ingredients of this product are listed on the TSCA 8(b) Chemical Substance Inventory or are exempt.

SARA Hazard Classes

Acute Health Hazard

Fire Hazard

Sudden Release of Pressure Hazard

SARA Section 313 Notification

This product does not contain any ingredients regulated under Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 or 40 CFR 372.

Ingredient(s) - State Regulations

dimethyl ether

New Jersey - Workplace Hazard

New Jersey - Environmental Hazard

New Jersey - Special Hazard

Pennsylvania - Workplace Hazard

Massachusetts - Hazardous Substance

New York City - Hazardous Substance

isobutane

New Jersey - Workplace Hazard

New Jersey - Environmental Hazard

New Jersey - Special Hazard

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15. Regulatory Information - Continued

Ingredient(s) - State Regulations - Continued

Pennsylvania - Workplace Hazard
Massachusetts - Hazardous Substance
New York City - Hazardous Substance

propane

New Jersey - Workplace Hazard
New Jersey - Environmental Hazard
New Jersey - Special Hazard
Pennsylvania - Workplace Hazard
Massachusetts - Hazardous Substance
New York City - Hazardous Substance

Canadian Regulatory Information

Class B - Combustible or Flammable Material. This product contains more than 1% of a known, controlled ingredient regulated under WHMIS.

European Union (EU) Regulatory Information

European Union Risk Phrases -

R12 - Extremely flammable
R19 - May form explosive peroxides
R21 - Harmful in contact with the skin

European Union Safety Phrases -

S16 - Keep away from sources of ignition - no smoking
S24/25 - Avoid contact with skin and eyes
S3/9/14 - Keep in a cool, well ventilated place away from oxidizing materials
S51 - Use only in well ventilated areas

WHMIS - Canada (Pictograms)



DSCL - Europe (Pictograms)



16. Other Information

NFPA Rating

Health: 1
Fire: 4
Reactivity: 1

HMIS Rating

Health: 1
Fire: 4
Reactivity: 1
Personal Protection: B

Disclaimer

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Precision Valve Corporation