Material Safety Data Sheet

Issuing Date 25-Aug-2009 **Revision Date** 25-Jun-2013 **Revision Number** 2

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name **Preval**

UN-Number UN2037

Recommended Use Propellant (For Paint dispensing)

Supplier Address
Chicago Aerosol
1300 North St
Coal City, IL
60416
TEL: 815-634-5100

Emergency Telephone Number Chemtrec 1-800-424-9300

001-703-527-3887 (EU)

2. HAZARDS IDENTIFICATION

DANGER!

Emergency Overview

Flammable gas
Vapors are heavier than air and can cause suffocation by reducing oxygen available for breathing
May cause central nervous system depression
Causes adverse cardiovascular effects
Compressed gas
Contents under pressure
Flammable

Appearance Colorless **Physical State** Aerosol. **Odor** Slight ethereal

Potential Health Effects

Acute Toxicity

Eyes May cause irritation. Contact with product may cause frostbite.

Skin May cause frostbite. Irritating to skin.

Inhalation Harmful by inhalation. Inhalation of vapors in high concentration may cause irritation of respiratory system. At very high concentrations can displace the normal air and cause suffocation from lack of oxygen May cause central nervous system depression with nausea, headache, dizziness, vomiting, and incoordination.

Ingestion Not an expected route of exposure. May cause additional affects as listed under "Inhalation".

Chronic Effects Avoid repeated exposure. Intentional misuse by deliberately concentrating and inhaling contents may be harmful or fatal

Aggravated Medical Conditions Cardiovascular. Respiratory disorders. Central nervous system. Heart.

Interactions with Other Chemicals Use of alcoholic beverages may enhance toxic effects.

Environmental Hazard See Section 12 for additional Ecological Information.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Weight %
Dimethyl ether	115-10-6	30-60
Isobutane	75-28-5	10-30
Propane	74-98-6	10-30

4. FIRST AID MEASURES

General Advice Show this safety data sheet to the doctor in attendance.

Eye Contact Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

Skin Contact Wash off immediately with plenty of water. In case of contact with liquefied gas, thaw frosted parts with lukewarm water. If skin irritation persists, call a physician.

Inhalation Immediate medical attention is required. Move victim to fresh air. Administer oxygen if breathing is difficult and you are trained. If breathing has stopped, contact emergency medical services immediately.

Ingestion Not an expected route of exposure.

Notes to Physician Treat symptomatically.

Protection of First-aiders Remove all sources of ignition.

5. FIRE-FIGHTING MEASURES

Flammable Properties EXTREMELY FLAMMABLE

Flash Point -155 °F / -104 °C
Flashpoint Method Estimated

Suitable Extinguishing Media Dry chemical or CO_2. Water spray, fog or regular foam. Damaged cylinders should be handled only by specialists.

Hazardous Combustion Products Carbon monoxide. Carbon dioxide (CO_2). Formaldehyde.

Explosion Data
Sensitivity to Mechanical Impact None.
Sensitivity to Static Discharge Yes.

Specific Hazards Arising from the Chemical Vapors from liquefied gas are initially heavier than air and spread along ground. Avoid inhalation of combustion products. Cylinders exposed to fire may vent and release flammable gas through pressure relief devices Ruptured cylinders may rocket. Flash back possible over considerable distance. Extremely flammable.

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. In the event of fire and/or explosion do not breathe fumes

NFPA	**Health Hazard** 2	**Flammability** 3	**Instability** 1	**Physical and Chemical Hazards** -
HMIS	**Health Hazard** 2	**Flammability** 3	**Physical Hazard** 1	**Personal Protection** X

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded.

Environmental Precautions Prevent further leakage or spillage if safe to do so.

Methods for Containment If possible, turn leaking containers so that gas escapes rather than liquid. Allow substance to evaporate.

Methods for Cleaning Up Dam up. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Pick up and transfer to properly labeled containers. Soak up with inert absorbent material.

7. HANDLING AND STORAGE

Handling Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharges. Use only in an area containing flame proof equipment. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors). Do not breathe vapors or spray mist. Contents under pressure.

Storage Keep away from open flames, hot surfaces and sources of ignition. Keep container tightly closed in a dry and well-ventilated place. Keep in properly labeled containers.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Isobutane 75-28-5	TWA: 1000 ppm	N/A	N/A
Propane 74-98-6	TWA: 1000 ppm	TWA: 1000 ppm TWA: 1800 mg/m^3	IDLH: 2100 ppm TWA: 1000 ppm TWA: 1800 mg/m^3

ACGIH TLV: American Conference of Governmental Industrial Hygienists - Threshold Limit Value. OSHA PEL: Occupational Safety and Health Administration - Permissible Exposure Limits. NIOSH IDLH: 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 Eyewash stations. Showers. Explosion proof ventilation systems.

Personal Protective Equipment

Eye/Face Protection Safety glasses with side-shields.

Skin and Body Protection Wear fire/flame resistant/retardant clothing. Antistatic boots Neoprene gloves.

Respiratory Protection 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.

Hygiene Measures When using, do not eat, drink or smoke. Provide regular cleaning of equipment, work area and clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Colorless.	**Odor**	Slight ethereal.
Odor Threshold	No information available.	**Physical State**	Aerosol
pH	No information available.		
Flash Point	-155 °F / -104 °C	**Flashpoint Method**	Estimated
Autoignition Temperature	No information available.	**Decomposition Temperature**	No information available.
Boiling Point/Boiling Range	-42.2 to -11.7 °C	**Melting Point/Range**	No information available.
		Flammability Limits in Air	No information available.
Specific Gravity	0.6	**Water Solubility**	3.5%
Solubility	No information available.	**Evaporation Rate**	No information available.
Vapor Pressure	No data available.	**Vapor Density**	No data available.
VOC Content (%)	100		

10. STABILITY AND REACTIVITY

Stability Stable under recommended storage conditions.

Incompatible Products Strong oxidizing agents. Halogens. Strong acids. Aluminium hydride Aluminum lithium hydride. Acid anhydrides.

Conditions to Avoid Heat, flames and sparks.

Hazardous Decomposition Products Formaldehyde. Carbon monoxide (CO). Carbon dioxide (CO_2).

Hazardous Polymerization Hazardous polymerization does not occur.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Product Information Harmful by inhalation.

Inhalation May be harmful if inhaled. May cause central nervous system depression with nausea, headache, dizziness, vomiting, and incoordination.

Eye Contact May cause irritation.

Skin Contact Contact with product may cause frostbite

Ingestion Not an expected route of exposure.

Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Dimethyl ether			= 308.5 mg/L (Rat) 4 h
Isobutane			= 658 mg/L (Rat) 4 h
Propane		-	= 658 mg/L (Rat) 4 h

Chronic Toxicity

Chronic Toxicity Avoid repeated exposure. Intentional misuse by deliberately concentrating and inhaling contents may be harmful or fatal

Carcinogenicity There are no known carcinogenic chemicals in this product.

Target Organ Effects Central nervous system (CNS). Heart.

12. ECOLOGICAL INFORMATION

Ecotoxicity

The environmental impact of this product has not been fully investigated.

Chemical Name	Log Pow
Dimethyl ether	-0.18
Isobutane	2.88
Propane	2.3

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods This material, as supplied, is a hazardous waste according to federal regulations (40 CFR 261).

Contaminated Packaging Dispose of in accordance with local regulations. Do not re-use empty containers. Empty containers should be taken to an approved waste handling site for recycling or disposal. Pressurized container: Do not pierce or burn, even after use.

US EPA Waste Number D001

14. TRANSPORT INFORMATION

DOT

UN-Number	UN2037
Proper shipping name	Gas cartridges
Hazard Class	2.1
Description	UN2037, Gas cartridges, 2.1
Emergency Response Guide Number	115

TDG

UN-Number	UN2037
Proper Shipping Name	Gas cartridges
Hazard Class	2.1
Description	UN2037, Gas cartridges, 2.1

MEX

UN-Number	UN2037
Proper Shipping Name	Receptacles, small, containing gas (gas cartridges)
Hazard Class	2.2
Description	UN2037, Receptacles, small, containing gas (gas cartridges), 2.2

ICAO

UN-Number	UN2037
Proper shipping name	Gas cartridges
Hazard Class	2.2
Packing Group	Not applicable
Description	UN2037, Gas cartridges, 2.2

IATA

UN-Number	UN2037
Proper Shipping Name	Gas cartridges
Hazard Class	2.2
Packing Group	Not applicable
ERG Code	10L
Special Provisions	A112
Description	UN2037, Gas cartridges, 2.2

IMDG/IMO

UN-Number	UN2037
Proper Shipping Name	Gas cartridges
Hazard Class	2
Subsidiary Class	+
Packing Group	Not applicable
EmS No.	F-D, S-U
Description	UN2037, Gas cartridges, 2.2, (-104°C c.c.)

RID

UN-Number	UN2037
Proper Shipping Name	Gas cartridges
Hazard Class	2
Packing Group	Not applicable
Classification Code	5A
Description	UN2037, Gas cartridges, 2.2
ADR/RID-Labels	2

ADR

UN-Number	UN2037

Proper Shipping Name	Gas cartridges
Hazard Class	2
Packing Group	Not applicable
Classification Code	5A
Description	UN2037, Gas cartridges, 2.2, (E)
ADR/RID-Labels	2.2

ADN

UN-No	UN1950
Proper Shipping Name	Gas cartridges
Hazard Class	2
Classification Code	5A
Special Provisions	191, 303, 344
Description	UN2037, Gas cartridges, 2.2
Hazard Labels	2.1
Limited Quantity	1 L
Ventilation	VE01, VE04

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL	Complies
EINECS	Complies
ELINCS	Complies
ENCS	Complies
IECSC	Complies -
KECL	Complies
PICCS	Complies
AICS	Complies

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

U.S. Federal Regulations

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	No
Fire Hazard	Yes
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).

CERCLA

This material, as supplied, does not contain any 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). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

U.S. State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania	Illinois	Rhode Island
Dimethyl ether	X	X	X		X
Isobutane	X	X	X		
Propane	X	X	X		X

International Regulations

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

A Compressed gases
B1 Flammable gas

16. OTHER INFORMATION

Prepared By	Product Stewardship 23 British American Blvd. Latham, NY 12110 1-800-572-6501
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General Disclaimer

The information provided on this MSDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of Safety Data Sheet