

SAFETY DATA SHEET

Issuing Date 25-Aug-2009

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Revision Number 1

Section 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product Name Preval

1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended Use Propellant, (For Paint dispensing)
Uses advised against No information available

1.3. Details of the supplier of the safety data sheet

Company	Supplier
Chicago Aerosol	Paul Roche
1300 North St	60 The Major Lane
Coal City, IL	Dungannon Bt71 7fg
60416	United Kingdom
TEL: 815-634-5100	TEL: 44 28 877 89497

For further information, please contact

Contact person Paul Roche
E-mail Address proche@legacy.com

1.4. Emergency telephone number

Emergency Telephone Number Chemtrec 1-800-424-9300
 001-703-527-3887 (EU)

Europe 112

Section 2. Hazards identification

2.1. - Classification of the substance or mixture

REGULATION (EC) No 1272/2008

Physical Hazards

Gases under pressure	Compressed gas
Flammable gases	Category 1

Classification according to EU Directives 67/548/EEC or 1999/45/EC

For the full text of the R-phrases mentioned in this Section, see Section 16

The preparation is classified as dangerous in accordance with Directive 1999/45/EC.

Symbol(s) F - Highly flammable
 F+ - Extremely flammable
R-code(s) F+;R12 - F;R11

2.2. Label Elements



Signal Word

Danger

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Hazard Statements

H280 - Contains gas under pressure; may explode if heated
 H220 - Extremely flammable gas

P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking
 P377 - Leaking gas fire: do not extinguish, unless leak can be stopped safely
 P381 - Eliminate all ignition sources if safe to do so
 P410 + P403 - Protect from sunlight. Store in a well-ventilated place

2.3. Other information

May cause asphyxiation in high concentrations

Section 3. Composition/information on ingredients**3.1. Substances**

Chemical Name	EC-No	CAS-No	Weight %	Classification	EU - GHS Substance Classification	REACH No.
Dimethyl ether	204-065-8	115-10-6	50	F+;R12	Press. Gas Flam. Gas 1 (H220)	No data available
Isobutane	200-857-2	75-28-5	28.5	F+;R12	Press. Gas Flam. Gas 1 (H220)	No data available
Propane	200-827-9	74-98-6	21.5	F+; R12	Press. Gas Flam. Gas 1 (H220)	No data available

For the full text of the R-phrases mentioned in this Section, see Section 16
 For the full text of the H-Statements mentioned in this Section, see Section 16

Section 4. First aid measures**4.1. Description of 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.
Ingestion	Not an expected route of exposure.
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.
Protection of First-aiders	Remove all sources of ignition.

4.2. Most important symptoms and effects, both acute and delayed

Most Important Symptoms/Effects Difficulty in breathing. Drowsiness. Dizziness.

4.3. Indication of immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically.

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Section 5. Fire-fighting measures**5.1. Extinguishing media****Suitable Extinguishing Media**

Dry chemical or CO₂. Water spray, fog or regular foam. Damaged cylinders should be handled only by specialists.

Extinguishing media which must not be used for safety reasons

Do not use a solid water stream as it may scatter and spread fire.

5.2. Special hazards arising from the substance or mixture**Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases**

Vapors may form explosive mixtures with air. Vapors may accumulate in confined areas (basement, tanks, hopper/tank cars, etc.) Vapors may travel to source of ignition and flash back. Continue to cool fire exposed cylinders until flames are extinguished. Cylinders exposed to fire may vent and release flammable gas through pressure relief devices. Ruptured cylinders may rocket.

5.3. Advice for firefighters**Special protective equipment for fire-fighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

Section 6. Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

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.

6.2. Environmental precautions

Prevent further leakage or spillage if safe to do so.

6.3. Methods and materials for containment and cleaning up

Isolate area until gas has dispersed. Suppress vapors with water spray.

6.4. Reference to other sections

See Section 12 for additional information.

Section 7. Handling and storage**7.1. Precautions for Safe Handling****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.

Hygiene Measures

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

7.2. Conditions for safe storage, including any incompatibilities

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.

7.3. Specific end use(s)

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Exposure Scenario

No information available.

Other Guidelines

No information available.

Section 8. Exposure controls/personal protection**8.1. Control parameters****Exposure Limits**

Chemical Name	EU	The United Kingdom	France	Spain	Germany
Dimethyl ether 115-10-6	TWA 1000 ppm TWA 1920 mg/m ³	STEL: 500 ppm STEL: 958 mg/m ³ TWA: 400 ppm TWA: 766 mg/m ³	VME: 1000 ppm VME: 1920 mg/m ³	VLA-ED: 1000 ppm VLA-ED: 1920 mg/m ³	MAK: 1000 ppm MAK: 1900 mg/m ³ Ceiling / Peak: 8000 ppm Ceiling / Peak: 15200 mg/m ³ TWA: 1000 ppm TWA: 1900 mg/m ³
Isobutane 75-28-5				VLA-ED: 1000 ppm	MAK: 1000 ppm MAK: 2400 mg/m ³ Ceiling / Peak: 4000 ppm Ceiling / Peak: 9600 mg/m ³ TWA: 1000 ppm TWA: 2400 mg/m ³
Propane 74-98-6				VLA-ED: 1000 ppm	MAK: 1000 ppm MAK: 1800 mg/m ³ Ceiling / Peak: 4000 ppm Ceiling / Peak: 7200 mg/m ³ TWA: 1000 ppm TWA: 1800 mg/m ³
Chemical Name	Italy	Portugal	The Netherlands	Finland	Denmark
Dimethyl ether 115-10-6	TWA: 1000 ppm TWA: 1920 mg/m ³		STEL: 1500 mg/m ³ TWA: 950 mg/m ³	TWA: 1000 ppm TWA: 2000 mg/m ³	TWA: 1000 ppm TWA: 1885 mg/m ³
Isobutane 75-28-5		TWA: 1000 ppm		TWA: 800 ppm TWA: 1900 mg/m ³ STEL: 1000 ppm STEL: 2400 mg/m ³	
Propane 74-98-6		TWA: 1000 ppm		TWA: 800 ppm TWA: 1500 mg/m ³ STEL: 1100 ppm STEL: 2000 mg/m ³	TWA: 1000 ppm TWA: 1800 mg/m ³
Chemical Name	Austria	Switzerland	Poland	Norway	Ireland
Dimethyl ether 115-10-6	STEL 2000 ppm STEL 3820 mg/m ³ MAK: 1000 ppm MAK: 1910 mg/m ³	MAK: 1000 ppm MAK: 1910 mg/m ³	NDS: 1000 mg/m ³	TWA: 200 ppm TWA: 384 mg/m ³ STEL: 250 ppm STEL: 480 mg/m ³	TWA: 1000 ppm TWA: 1920 mg/m ³
Isobutane 75-28-5	STEL 1600 ppm STEL 3800 mg/m ³ MAK: 800 ppm MAK: 1900 mg/m ³	MAK: 800 ppm MAK: 1900 mg/m ³			
Propane 74-98-6	STEL 2000 ppm STEL 3600 mg/m ³ MAK: 1000 ppm MAK: 1800 mg/m ³	STEL: 4000 ppm STEL: 7200 mg/m ³ MAK: 1000 ppm MAK: 1800 mg/m ³	NDS: 1800 mg/m ³	TWA: 500 ppm TWA: 900 mg/m ³ STEL: 625 ppm STEL: 1125 mg/m ³	

Derived No Effect Level

No information available

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Predicted No Effect Concentration (PNEC) No information available.

8.2. Exposure controls

Engineering Measures	Eyewash stations. Showers. Explosion proof ventilation systems.
Personal protective equipment	
Eye Protection	Safety glasses with side-shields.
Skin and Body Protection	Antistatic boots. Wear fire/flamm resistant/retardant clothing. Impervious gloves.
Hand Protection	Neoprene gloves
Respiratory Protection	When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Wear a positive-pressure supplied-air respirator Respiratory protection complying with EN 143.

Environmental Exposure Controls No information available.

Section 9. Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Physical State	Aerosol.	Appearance	Colorless
Odor	Slight ethereal.		

<u>Property</u>	<u>Values</u>	<u>Remarks/ - Method</u>
pH	No data available	None known
Melting Point/Range	No data available	None known
Boiling Point/Boiling Range	-42.2 to -11.7 °C	None known
Flash Point	-104 °C / -155 °F	Estimated
Evaporation rate	No data available	None known
Flammability (solid, gas)	No data available	None known
Vapor Pressure	No data available	None known
Vapor Density	No data available	None known
Relative Density	No data available	None known
Specific Gravity	0.6	None known
Water Solubility	3.5%	None known
Solubility in other solvents	No data available	None known
Partition coefficient: n-octanol/water	No data available	None known
Autoignition Temperature	No data available	None known
Decomposition Temperature	No data available	None known
Viscosity	No data available	None known
Explosive Properties	No information available	
Oxidizing Properties	No information available	

9.2. Other information

VOC Content (%) No information available

Section 10. Stability and reactivity

10.1. Reactivity
No data available.

10.2. Chemical stability
Stable under normal conditions.

10.3. Possibility of hazardous reactions
None under normal processing.

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10.4. Conditions to avoid

Heat, flames and sparks.

10.5. Incompatible materials

Strong oxidizing agents. Halogens. Strong acids. Aluminum hydride Aluminum lithium hydride

10.6. Hazardous decomposition productsFormaldehyde. Carbon monoxide (CO). Carbon dioxide (CO₂).**Section 11. Toxicological information****11.1.****Acute Toxicity****Product Information****Inhalation**

Harmful by 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

Sensitization

No information available.

Mutagenic Effects

No information available.

Carcinogenic EffectsThe classification below applies only to isobutane that contains ≥ 0.1 butadiene.

Chemical Name	EU Annex I Carcinogen Information	UK
Isobutane		X

Reproductive Toxicity

No information available.

Developmental Toxicity

No information available.

STOT - single exposure

No information available.

STOT - repeated exposure

No information available.

Target Organ Effects

Central nervous system (CNS). Heart.

Aspiration Hazard

No information available.

Section 12. Ecological information**12.1. Toxicity****Ecotoxicity Effects**

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

12.2. Persistence and degradability

No information available.

12.3. Bioaccumulative potential.

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Bioaccumulation is unlikely

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

12.4. Mobility in soil

Spillage unlikely to penetrate soil

12.5. Results of PBT and vPvB assessment

No information available.

12.6. Other adverse effects

This product does not contain any known or suspected endocrine disruptors.

Section 13. Disposal considerations**13.1. Waste treatment methods****Waste from Residues / Unused Products**

Can be disposed as waste water, when in compliance with local regulations.

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.

Section 14. Transport information**IMDG/IMO**

14.1. UN-Number	UN2037
14.2. Proper Shipping Name	Gas cartridges
14.3. Hazard Class	2
Subsidiary Class	+
14.4. Packing Group	Not applicable
Description	UN2037, Gas cartridges, 2.2, (-104°C c.c.)
14.5. Marine Pollutant	None.
14.6. Special Provisions	None.
EmS No.	F-D, S-U
14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	No information available.

RID

14.1. UN-Number	UN2037
14.2. Proper Shipping Name	Gas cartridges
14.3. Hazard Class	2
ADR/RID-Labels	2
14.4. Packing Group	Not applicable
Description	UN2037, Gas cartridges, 2.2
14.5. Environmental hazard	None.
14.6. Special Provisions	None.
Classification Code	5A

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ADR

14.1. UN-Number	UN2037
14.2. Proper Shipping Name	Gas cartridges
14.3. Hazard Class	2
ADR/RID-Labels	2.2
14.4. Packing Group	Not applicable
Description	UN2037, Gas cartridges, 2.2, (E)
14.5. Environmental hazard	None.
14.6. Special Provisions	None.
Classification Code	5A
Tunnel Restriction Code	(E)

ICAO

14.1. UN-Number	UN2037
14.2. Proper shipping name	Gas cartridges
14.3. Hazard Class	2.2
14.4. Packing Group	Not applicable
Description	UN2037, Gas cartridges, 2.2
14.5. Environmental hazard	None.
14.6. Special Provisions	None.

IATA

14.1. UN-Number	UN2037
14.2. Proper Shipping Name	Gas cartridges
14.3. Hazard Class	2.2
14.4. Packing Group	Not applicable
Description	UN2037, Gas cartridges, 2.2
14.5. Environmental hazard	None.
14.6. Special Provisions	A112
ERG Code	10L

Section 15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**International Inventories**

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

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
PICCS - Philippines Inventory of Chemicals and Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
AICS - Australian Inventory of Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances

15.2. Chemical Safety Assessment

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No information available

Section 16. Other information**Full text of R-phrases referred to under Sections 2 and 3**R11 - Highly flammable
R12 - Extremely flammable**Full text of H-Statements referred to under sections 2 and 3**

H220 - Extremely flammable gas

Key literature references and sources for datawww.ChemADVISOR.com/**Issuing Date** 25-Aug-2009**Revision Date** 25-Jun-2013**Revision Note** (M)SDS sections updated: 14.**This safety data sheet complies with the requirements of Commission Regulation (EU) No 453/2010 of 20 May 2010 amending Regulation (EC) No. 1907/2006****General Disclaimer**

The information provided on this SDS 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