

SAFETY DATA SHEET

Issuing Date 1/5/16 **Revision Date** 10/14/2014 **Revision Number** 0

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY/UNDERTAKING**GHS Product Identifier**

Product Name: **Preval**

Other means of Identification

Synonyms: none

Recommended use of the chemical and restrictions on use

Recommended Use: No information available

Uses advised against: No information available

2. HAZARD IDENTIFICATION**Classification**

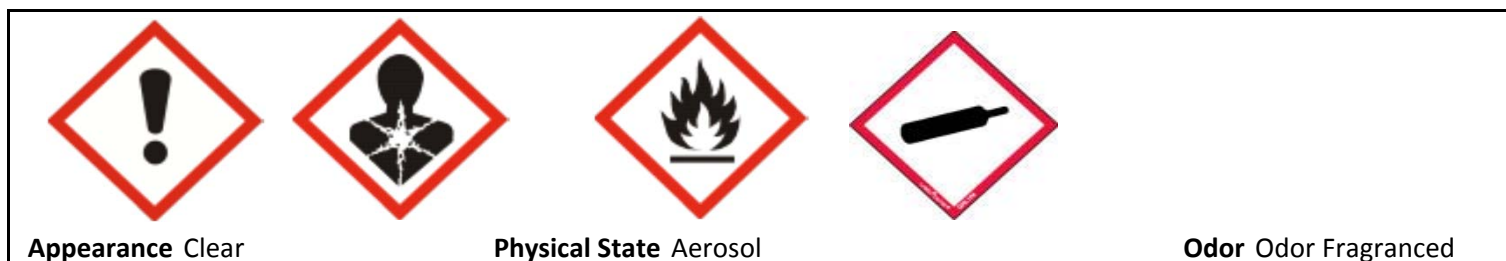
Serious Eye Damage/Eye Irritation	Category 2A
Specific Target Organ Systemic toxicity (Single Exposure)	Category 3
Simple Asphyxiant	Yes
Flammable Aerosols	Category 1
Gases Under Pressure	

GHS label elements, including precautionary statements**EMERGENCY OVERVIEW**

Signal Word **Danger**

Hazard Statements

- Causes serious eye irritation
- May cause respiratory irritation
- May cause drowsiness or dizziness
- Extremely flammable aerosol

**Precautionary Statements****Prevention**

- Obtain special instructions before use.
- Do not handle until all safety precautions have been read and understood.
- Use personal protective equipment as required.
- Wash face, hands and any exposed skin thoroughly after handling.
- Wear eye/face protection.
- Avoid breathing dust/fume/gas/mist/vapors/spray.
- Use only outdoors or in a well-ventilated area.
- Keep away from heat/sparks/open flames/hot surfaces - No smoking.
- Do not spray on an open flame or other ignition source.
- Pressurized container: Do not pierce or burn, even after use.

General Advice

- If exposed or concerned: Get medical attention/advice

Eyes

- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- If eye irritation persists: Get medical advice/attention.

Inhalation

- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

Storage

- Store locked up.
- Store in a well-ventilated place. Keep container tightly closed.
- Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F

Disposal

- Dispose of contents/container to an approved waste disposal plant.

Hazard Not Otherwise Classified (HNOC)

Rapid evaporation of the liquid may cause frostbite.

Other information

May be harmful if inhaled. Intentional misuse by deliberately concentrating and inhaling contents may be harmful or fatal.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Weight %	Trade Secret
Dimethyl Ether	115-10-6	< 55	*
Isobutane	75-28-5	< 30	*
Propane	74-98-6	< 30	*

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**The exact percentage (concentration) of composition has been withheld as a trade secret.*

4. FIRST AID MEASURES

Description of necessary first-aid measures

Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention immediately if irritation persists.
Skin Contact	Wash off with warm water and soap. In case of contact with liquefied gas, thaw frosted parts with lukewarm water. Get medical attention if symptoms occur.
Inhalation	IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
Ingestion	Not an expected route of exposure

Most important symptoms/effects, acute and delayed

Most Important Symptoms/Effects Eye irritation/reactions. Frostbite. Drowsiness. Dizziness. Simple asphyxiant.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Carbon dioxide (CO₂). Dry chemical. Alcohol-resistant foam. Water fog.

Unsuitable Extinguishing Media No information available.

Specific Hazards Arising from the Chemical

No information available.

Hazardous Combustion Products Thermal decomposition can lead to release of irritating and toxic gases and vapors: Carbon oxides. Nitrogen oxides (NO_x).

Explosion Data

Sensitivity to Mechanical Impact Yes

Sensitivity to Static Discharge Yes

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.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions Contents under pressure. Remove all sources of ignition. Do not puncture or incinerate cans. Avoid contact with skin, eyes and clothing. Do not touch damaged containers or spilled material

Environmental Precautions

Environmental Precautions See Section 12 for additional Ecological Information.

Methods and materials for containment and cleaning up

Methods for Containment Prevent further leakage or spillage if safe to do so.

Methods for Cleaning Up Pick up and transfer to properly labeled containers. Cover liquid spill with sand, earth or other noncombustible absorbent material. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling Contents under pressure. Keep away from open flames, hot surfaces and sources of ignition. Avoid contact with skin, eyes and clothing.

Conditions for safe storage, including any incompatibilities

Storage Store in a cool, dry area away from potential sources of heat, open flames, sunlight or other chemicals.

Incompatible Products Strong oxidizing agents.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Dimethyl Ether 115-10-6	TWA: 1000 ppm	TWA: 1000 ppm	TWA: 1000 ppm

Appropriate engineering controls

Engineering Measures Showers
Eyewash stations
Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/Face Protection No protective equipment is needed under normal use conditions. Risk of contact, wear: Safety glasses with side-shields.

Skin and Body Protection No protective equipment is needed under normal use conditions. Lightweight protective clothing. Protective gloves. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion.

Respiratory Protection No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn.

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State	Aerosol	Appearance	Clear
Odor	ether	Odor Threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks/ - Method</u>
pH	No data available	Enter here
Melting Point/Range	No data available	Enter here
Boiling Point/Boiling Range	-42.2 to -11.7° C	for concentrate
Flash Point	No data available	
Evaporation rate	No data available	Enter here
Flammability (solid, gas)	No data available	Enter here
Flammability Limits in Air	No data available	Enter here
upper flammability limit	No data available	Enter here
lower flammability limit	No data available	Enter here
Vapor Pressure	45-55 psig @ 70 F	Enter here
Vapor Density	No data available	Enter here
Specific Gravity	0.6	water = 1
Water Solubility	3.50%	Enter here
Solubility in other solvents	No data available	Enter here
Partition coefficient: n-octanol/water	No data available	Enter here
Autoignition Temperature	No data available	Enter here
Decomposition Temperature	No data available	Enter here
Viscosity	No data available	Enter here
Flammable Properties	Not Flammable	Enter here
Explosive Properties	No data available	Enter here
Oxidizing Properties	No data available	Enter here
<u>Other information</u>		
VOC Content (%)	100%	

10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions.

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

None under normal processing.

Hazardous Polymerization

Hazardous polymerization does not occur.

Conditions to avoid

Heat, flames and sparks.

Incompatible materials

Strong oxidizing agents

Hazardous decomposition products

Carbon oxides. Nitrogen oxides (NOx).

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Inhalation	May cause irritation of respiratory tract. May cause drowsiness and dizziness. Intentional misuse by deliberately concentrating and inhaling contents may be
Eye Contact	Contact with eyes may cause serious eye irritation based on the components present within the product.
Skin Contact	Contact with product may cause frostbite.
Ingestion	May be harmful if swallowed. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Dimethyl Ether		-	=308.5 mg/L
Isobutane			658 mg/L
Propane			658 mg/L

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms	Eye contact with liquid may cause irritation including stinging, burning, tearing, or reddening of the eyes. Avoid skin contact with leaking liquid (danger of frostbite).
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Delayed and immediate effects and also chronic effects from short and long term exposure

Sensitization	No information available.
Mutagenic Effects	No information available.
Carcinogenicity	No information available.

Chemical Name	ACGIH	IARC	NTP	OSHA

Reproductive Toxicity	No information available.
STOT - single exposure	May cause respiratory irritation. May cause drowsiness or dizziness.
STOT - repeated exposure	No information available.
Aspiration Hazard	No information available.

Numerical measures of toxicity - Product

The following values are calculated based on chapter 3.1 of the GHS document:

LD50 Oral
LD50 Dermal
Inhalation

Vapor

12. ECOLOGICAL INFORMATION

Ecotoxicity

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

Chemical Name	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)

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Persistence and Degradability No information available.

Bioaccumulation No information available.

Chemical Name	Log Pow
Dimethyl Ether	-0.18
Isobutane	2.89
Propane	2.3

Other Adverse Effects

No information available.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods Dispose of in accordance with federal, state, and local regulations.

Contaminated Packaging Do not re-use empty containers.

14. TRANSPORT INFORMATION

DOT

Proper shipping name Consumer commodity
Hazard Class ORM-D
Description Consumer commodity, ORM-D
Emergency Response Guide Number 126

TDG

UN-Number UN1950
Proper Shipping Name Aerosols
Hazard Class 2.1
Description UN1950, Aerosols, 2.1

MEX

UN-Number UN1950
Proper Shipping Name Aerosols
Hazard Class 2.1
Description UN1950, Aerosols, 2.1

ICAO

UN-Number ID8000
Proper Shipping Name Consumer commodity
Hazard Class 9
Description ID8000, Consumer commodity, 9

IATA

UN-Number ID8000
Proper Shipping Name Consumer commodity
Hazard Class 9
ERG Code 9L
Description ID8000, Consumer commodity, 9

IMDG/IMO

UN-Number UN1950
Proper Shipping Name Aerosols
Hazard Class 2
EmS No. F-D, S-U
Description UN1950, Aerosols, 2.1 (18.3°C o.c.)

15. REGULATORY INFORMATION

International Inventories

TSCA All components of this product are either listed or are exempt on the TSCA inventory.
DSL Substances comply or are exempt

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 contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

Chemical Name	CAS-No	Weight %	SARA 313 - Threshold Values %

SARA 311/312 Hazard Categories

Acute Health Hazard Yes
Chronic Health Hazard Yes
Fire Hazard Yes
Sudden Release of Pressure Hazard Yes
Reactive Hazard No

Clean Water Act

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances

CERCLA

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	RQ

U.S. State Regulations

California Proposition 65

Chemical Name	CAS-No	California Prop. 65

Chemical Name	New Jersey	Massachusetts	Pennsylvania	Illinois	Rhode Island

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. OTHER INFORMATION				
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<u>NFPA</u>	Health Hazard 2	Flammability 4	Instability 0	Physical and Chemical Hazards
<u>HMIS</u>	Health Hazard 2*	Flammability 4	Physical Hazard 0	Personal Protection X

**Indicates a chronic health hazard.*

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