


	<b>SAFETY DATA SHEET</b>	Revised edition no : 2 Date : 12/05/2014
	<b>Dimethyl Ether</b>	PG 002

### SECTION 1. IDENTIFICATION OF THE PRODUCT AND COMPANY UNDERTAKING

<b>Product name :</b> <b>Synonyms:</b> <b>Product Use Description:</b> <b>Company:</b>	Dimethyl Ether, aerosol grade DME Chemical intermediate, Aerosol propellants, Foaming (blowing) agents PUREGAS (Pty) Ltd PO Box 123884, Alrode, 1451, South Africa <b>Tel :</b> (011) 903 9760 <b>Fax:</b> (011) 903 9766 <b>Cellphone:</b> 082 889 6946 (1 <sup>st</sup> ) 082 885 7475 (2 <sup>nd</sup> ) <b>Email:</b> <a href="mailto:info@puregas.co.za">info@puregas.co.za</a> <b>Emergency Tel:</b> 0800 172 743 (Rapid Spill Response)
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### SECTION 2. HAZARDS IDENTIFICATION

<b>Classification</b>	Flammable gases, Category 1 Gases under pressure, Liquefied gas
<b>Pictograms</b>	
<b>Signal Word</b>	Danger
<b>Hazard statements</b>	H220 Extremely flammable gas. H280 Contains gas under pressure; may explode if heated.
<b>Precautionary statements</b>	
<b>Prevention</b>	<b>P210</b> Keep away from heat/sparks/open flames/hot surfaces. No smoking
<b>Response</b>	<b>P377</b> Leaking gas fire: Do not extinguish, unless leak can be stopped safely. <b>P381</b> Eliminate all ignition sources if safe to do so
<b>Storage</b>	<b>P410 + P403</b> Protect from sunlight. Store in a well-ventilated place.
<b>Other hazards which do not result in classification</b>	No further data available

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS No.
Dimethyl Ether	115-10-6
Contains no hazardous ingredients according to GHS	

### SECTION 4. FIRST AID MEASURES

<b>General advice</b>	When symptoms persist or in all cases of doubt seek medical advice.
<b>Inhalation</b>	Provide fresh air, warmth and rest, preferably in a comfortable upright sitting

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<b>Skin contact</b>	position. Give oxygen or artificial respiration if needed. Seek medical advice after significant exposure.
<b>Eye contact</b>	May cause frostbite. Wash frost-bitten areas with plenty of water. Do not remove clothing. Thaw frosted parts with lukewarm water. Do not rub affected area. Seek medical advice.
<b>Ingestion</b>	Not likely to occur
<b>Notes to physician</b>	
<b>Symptoms</b>	Frostbite
<b>Treatment</b>	Treat symptomatically

**SECTION 5. FIRE-FIGHTING MEASURES**

<b>Suitable extinguishing media</b>	Dry Chemical Powder
<b>Unsuitable extinguishing media</b>	None
<b>Specific hazards during Fire fighting / Specific hazards arising from the chemical</b>	Vapours may form explosive mixtures with air. Vapours may travel to areas away from work site before igniting/flashing back to vapour source.
<b>Special protective equipment for fire-fighters</b>	In the event of fire, wear self-contained breathing apparatus.
<b>Further information</b>	Use water spray to cool unopened containers

**SECTION 6. ACCIDENTAL RELEASE MEASURES**

<b>Personal precautions</b>	Ensure adequate ventilation Remove all sources of ignition Beware of vapours accumulating to form explosive concentrations Vapours can accumulate in low areas
<b>Environmental precautions</b>	Prevent product from entering drains
<b>Methods for cleaning up / Methods for containment</b>	Evacuate area Ventilate the area
<b>Additional advice</b>	For personal protection see section 8.

**SECTION 7. HANDLING AND STORAGE**

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<b>Advice on safe handling</b>	For personal protection see section 8. Use only with adequate ventilation. Use the indicated respiratory protection if the occupational exposure limit is exceeded and/or in case of product release.
<b>Advice on protection against fire and explosion</b>	Keep away from sources of ignition - No smoking. Take measures to prevent the build-up of electrostatic charge. Vapours are heavier than air and may spread along floors. Vapours may travel to areas away from work site before igniting/flashing back to vapour source.
<b>Storage Requirements for storage areas and containers</b>	Store away from heat. Keep away from direct sunlight. Keep in a well-ventilated place.

**SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION****Components with workplace control parameters**

Contains no substances with occupational exposure limit values.

**Engineering Controls**

Effective exhaust ventilation system

<b>Personal protective equipment</b>	
Respiratory protection	In case of insufficient ventilation, wear suitable respiratory equipment
Hand protection	Neoprene
Eye protection	Tightly fitting safety goggles
Skin and body protection	Protective suit
Hygiene measures	Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
<b>Environmental exposure controls</b>	
General advice	Prevent product from entering drains.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Appearance</b>	
Form	Liquefied gas
<b>Colour</b>	colourless
<b>Odour</b>	Almost odourless.
<b>Odour Threshold</b>	no data available
<b>Safety data</b>	
pH	not applicable

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<b>Freezing point</b>	-141 °C
<b>Boiling point/Boiling range</b>	-24.8 °C
<b>Flash point</b>	- 41 °C
<b>Evaporating rate</b>	no data available
<b>Flammability (solid, gas)</b>	Extremely flammable
<b>Lower Explosion Limit</b>	3.3 %(V)
<b>Upper explosion limit</b>	18.6 %(V)
<b>Vapour pressure</b>	470 kPa at 25 °C 1040 kPa at 50 °C
<b>Relative vapour density</b>	1.59 (Air = 1.0)
<b>Density</b>	668 kg/m <sup>3</sup> at 20 °C Liquid
<b>Water solubility</b>	328 g/l at 20 °C at 410kPa Liquefied gas, Closed system
<b>Solubility in other solvents</b>	Organic solvents.
<b>Partition coefficient: n-octanol/water</b>	log pow: 0.07 at 25 °C
<b>Auto-ignition temperature</b>	350 °C (235 °C, BAM, DIN 51 794)
<b>Decomposition temperature</b>	no data available
<b>Viscosity, dynamic</b>	not applicable
<b>Viscosity, kinematic</b>	not applicable
<b>Explosive properties</b>	Vapours may form explosive mixtures in air
<b>Oxidizing properties</b>	Not classified as oxidising.
<b>Peroxide content</b>	not applicable
<b>This safety datasheet only contains information relating to safety and does not replace any product information or product specification.</b>	

**SECTION 10. STABILITY AND REACTIVITY**

<b>Conditions to avoid</b>	Heat, flames and sparks.
<b>Material to avoid</b>	Hydrogen fluoride Strong oxidizing agents Oxygen Rubber products

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<b>Hazardous decomposition products.</b>	Viton (R)  In case of fire hazardous decomposition products may be produced such as: Carbon dioxide (CO <sub>2</sub> ), carbon monoxide (CO), oxides of nitrogen (NO <sub>x</sub> ), dense black smoke.
<b>Thermal decomposition</b>	no data available
<b>Reactivity</b>	Stable under recommended storage conditions.
<b>Chemical stability</b>	Stable under recommended storage conditions.
<b>Hazardous reactions</b>	No dangerous reaction known under conditions of normal use.

**SECTION 11. TOXICOLOGICAL INFORMATION**

<b>Hazard Summary</b>	
Inhalation	May cause irritation of respiratory tract.
Skin	May cause frostbite.
Eyes	May cause eye irritation.
<b>Toxicology Assessment</b>	
Further information	Solvents may degrease the skin.

**SECTION 12. ECOLOGICAL INFORMATION**

<b>Ecotoxicology Assessment</b>	
Additional ecological information	None known

**SECTION 13. DISPOSAL CONSIDERATIONS**

<b>Product</b>	Dispose of in accordance with local regulations
<b>Contaminated packaging</b>	Empty remaining contents. Empty pressure vessels should be returned to the supplier. Do not burn, or use a cutting torch on, the empty drum.

**SECTION 14. TRANSPORT INFORMATION**

<b>IATA</b>	
UN number	1033
Proper shipping name	Dimethyl ether
Class	2.1
Labels	2.1
Packing instruction (cargo aircraft)	200
<b>IATA_P</b>	
UN number	1033
Class	2.1
Environmentally hazardous	No

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<b>IMDG</b>	
UN number	1033
Proper shipping name	DIMETHYL ETHER
Class	2.1
Labels	2.1
EmS Number 1	F-D
EmS Number 2	S-U
Marine Pollutant	No
Other information	Handle with care

**SECTION 15. REGULATORY INFORMATION**

<b>EEC Hazard Classification</b>	F+ Extremely Flammable
<b>Risk Phrases</b>	R12 – Extremely Flammable R18 – In use may form flammable explosive vapour-air mixture. R44 – Risk of explosion if heated under confinement.
<b>Safety Phrases</b>	S2 Keep out of reach of children S3 Keep in cool place S9 Keep container in well ventilated place S15 Keep away from heat S29 Do not empty into drains S16 Keep away from sources of ignition S33 Keep away from static discharge S41 in case of fire and/or explosion do not breath fumes Refer to SANS 10265 for explanation of the above.
<b>Legislation</b>	Ensure national/local regulations are observed

**SECTION 16. OTHER INFORMATION**Further information

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered 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 materials or in any process, unless specified in the text.