

**SAFETY DATA SHEET**  
Deepfreeze Refrigerants Inc.  
2695 Slough Street  
Mississauga Ontario Canada

**PRODUCT: Duracool 12A Refrigerant Cylinder - 5.4 kg / 9.1 kg**

**SECTION 01: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

Product Identity..... Duracool 12a Refrigerant Cylinder - 5.4kg and 9.1 kg  
Product Item Numbers..... F12-30 F12-50  
Manufacturer..... Deepfreeze Refrigerants Inc.  
2695 Slough Street  
Mississauga  
L4T 1G2  
905 671 4222  
24 hour emergency telephone number..... In Canada & The United States: Call CHEMTREC (800) 424-9300.  
Hazard Ratings:  
HMIS..... Health: 1 Fire: 4 Reactivity: 1.  
NFPA Rating..... Health: 1 Fire: 4 Reactivity: 1.

**SECTION 02: HAZARDS IDENTIFICATION**

Emergency Overview..... Extremely flammable . Container is under pressure. Container may explode if heated. Do not puncture. Do not burn. Contact with rapidly expanding gases can cause frostbite .  
Potential Health Effects:  
Skin Contact ..... Contact with rapidly expanding gas may cause burns and frostbite. Skin may be flushed; as frostbite develops. Blisters may develop.  
Eye Contact..... Direct contact with rapidly expanding gas or frost particles may produce severe and possibly permanent eye damage.  
Ingestion..... Ingestion is not a likely route of exposure.  
Inhalation..... Acts as a simple asphyxiant.

**SECTION 03: COMPOSITION/INFORMATION ON INGREDIENTS**

HAZARDOUS INGREDIENTS	CAS #	WT. %
Propane	74-98-6	30-60
Isobutane	75-28-5	30-60

**SECTION 04: FIRST AID MEASURES**

Eye Contact..... If eye tissue is frozen, seek medical attention immediately. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. If irritation, pain, swelling, lacrimation, or photophobia persist, get medical attention as soon as possible .  
Skin Contact..... If frostbite has occurred, seek medical attention immediately; do NOT rub the affected areas or flush them with water. In order to prevent further tissue damage, do NOT attempt to remove frozen clothing from frostbitten areas. If frostbite has NOT occurred, immediately and thoroughly wash contaminated skin with soap and water.  
Ingestion..... As this product is a gas, refer to the inhalation section.  
Inhalation..... If inhaled, remove to fresh air. If not breathing, give artificial respiration and obtain immediate medical assistance. If breathing is difficult, give oxygen and get medical attention.  
Additional Information..... Note to the doctor; treat symptomatically.

**SECTION 05: FIRE FIGHTING MEASURES**

Flammability Class..... Extremely Flammable.  
Extinguishing Media..... Use media suitable to the surrounding fire such as foam, dry chemical or water fog.  
Sensitivity to Mechanical Impact..... Not expected to be sensitive.  
Sensitivity to Static Discharge..... Not expected to be sensitive.

**SECTION 06: ACCIDENTAL RELEASE MEASURES**

Spills and Leaks..... Asphyxiant-lack of oxygen can kill. Immediately evacuate all personnel from danger area. Use self-contained breathing apparatus and protective clothing. Shut off leak if without risk. Ventilate area of leak or move cylinder to a well-ventilated area. Remove flames and heating elements. Soak up with absorbent such as vermiculite, sand, or earth. Contain the spill.

**SAFETY DATA SHEET**

**SECTION 07: HANDLING AND STORAGE**

Precautions for Safe Handling..... Cylinders should be stored upright, with valve protection cap in place, and firmly secured to prevent falling. Use with adequate ventilation. Do not store in temperatures above 120°F (50°C).

**SECTION 08: EXPOSURE CONTROLS / PERSONAL PROTECTION**

INGREDIENTS	ACGIH TLV		PEL	OSHA PEL		REL	NIOSH
	TWA	STEL		STEL	STEL		
Propane	2,500 ppm	Not available	1,000 ppm	Not available		1,000 ppm	
Isobutane	800 ppm	1000 ppm	800 ppm	Not available		800 ppm (TWA)	
Eye/Face Protection.....	Wear appropriate eye protection to prevent eye contact with the liquid that could result in burns or tissue damage from frostbite .						
Skin Protection.....	Compressed gases may create low temperatures when they expand rapidly. Leaks and uses that allow rapid expansion may cause a frostbite hazard. Wear appropriate personal protective clothing to prevent the skin from becoming frozen .						
Respiratory Protection.....	Use approved NIOSH respirators for emergencies.						
Appropriate Engineering Controls.....	Local exhaust ventilation required to maintain the point of use below the Threshold Limit Value if unprotected personnel are involved.						

**SECTION 09: PHYSICAL AND CHEMICAL PROPERTIES**

Physical State..... Gas.  
 Physical Appearance..... Colorless gas.  
 Odour..... Gasoline like or natural gas odor .  
 Odour Threshold (ppm)..... Not available.  
 pH..... Not applicable.  
 Vapour Pressure (psig)..... 80- 95 .  
 Vapour Density (Air=1)..... 1.64.  
 Evaporation Rate (n-Butyl Acetate = 1)..... Rapid .  
 Boiling Point (° C)..... -37.8.  
 VOC Content..... 100%.  
 Specific Gravity..... 0.520- 0.540.  
 Specific Gravity (Aerosol)..... Not applicable.  
 Solubility in water..... Not soluble in water.  
 Aerosol Flame Projection..... Not applicable.  
 Auto Ignition Temperature (Propellant), °C... Not applicable.  
 Flashback..... No.  
 Flash Point (°C), Method..... -83.15°C/ -117.7°F.  
 Lower Flammable Limit (% Vol)..... 1.8.  
 Upper Flammable Limit (% Vol)..... 9.1.

**SECTION 10: STABILITY AND REACTIVITY**

Chemical Stability..... Stable at normal temperatures and pressures.  
 Incompatible Materials..... Strong oxidizing agents. Strong acids.  
 Hazardous Decomposition Products..... Under normal conditions of storage and use, hazardous decomposition products should not be produced . This product may produce carbon monoxide with a deficiency of oxygen .  
 Possibility of Hazardous Reactions..... Has not been reported.

**SECTION 11: TOXICOLOGICAL INFORMATION**

INGREDIENTS	LC50	LD50
Propane	658 mg/L (Rat - 4hrs)	Not available
Isobutane	658 mg/L (Rat - 4hrs)	Not available
Route of Exposure.....	Skin contact, Eye contact, Inhalation.	
Effects of Acute Exposure.....	Contact with skin and eyes may cause mild to moderate irritation and frostbite. Symptoms may include redness, pain, numbness, pricking and itching. May cause frostbite .	
Chronic Effects.....	May cause skin defatting and dermatitis.	
Carcinogenicity.....	Not classified as carcinogenic by ACGIH, IARC, OSHA or NTP.	
Reproductive Toxicity.....	No information is available, and no adverse effects are expected.	
Teratogenicity.....	No information is available, and no adverse effects are expected.	
Germ Cell Mutagenicity.....	No information is available, and no adverse effects are expected.	
Toxicological Data		

**SAFETY DATA SHEET**

**SECTION 12: ECOLOGICAL INFORMATION**

Environmental..... Complete information is not yet available.

**SECTION 13: DISPOSAL CONSIDERATIONS**

Appropriate Disposal Methods..... Dispose in accordance with local, provincial and federal regulations.

**SECTION 14: TRANSPORT INFORMATION**

TDG (Canada- Road)..... LIQUEFIED PETROLEUM GASES, Class 2.1, UN1075.  
DOT (US-Road)..... Liquefied petroleum gases, Class 2.1, UN1075.  
IMDG (International- Marine)..... Liquefied petroleum gases, Class 2.1, UN1075.  
IATA (International- Air)..... Liquefied petroleum gases, Class 2.1, UN1075.

**SECTION 15: REGULATORY INFORMATION**

Canada Regulations:..... WHMIS Classification. A: Compressed gas. B: Flammable and combustible gas.  
US Regulations..... Environmental Protection Act: Constituents of this product are included on the TSCA inventory. OSHA (29CFR 1910.1200) Classification: Compressed Gas. HIMS Classifications: see section 01.

**SECTION 16: OTHER INFORMATION**

Disclaimer..... The information contained herein is based on data considered accurate. No warranty is expressed or implied regarding the accuracy of this data or the results obtained from the use thereof. Empack assumes no responsibility for personal injury or property damage to vendees or users or third parties, caused by the material. Such vendees or users assume all risks with the use of the material. This product has been classified in accordance with the hazard criteria of the CPR and the SDS contains all the information required by the CPR. THIS SDS IS VALID FOR THREE YEARS.

Abbreviations..... ACGIH: American Conference of Governmental Industrial Hygienists; CAS: Chemical Abstract Service; NIOSH: National Institute for Occupational Safety and Health, OSHA: Occupational Safety and Health Administration- USA; TSCA: Toxic Substances Control Act 1976-USA; PEL: Permissible Exposure Limit; REL: Recommended Exposure Limit; TLV: Threshold Limit Value; VOC: Volatile Organic Content; WHMIS: Workplace Hazardous Materials Information System STOT: Specific Target Organ Toxicity.

Prepared by ..... Regulatory Affairs  
Latest Revision ..... January 07 / 2021