Tel: 514-956-7503
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Quebec	Quebec	Tel : 418-834-7447	Fax : 418-834-3774

MSDS: Isobutane

PRODUCT INFORMATION

PRODUCT: Isobutane
TRADE NAME: Isobutane, 1-Butane
CHEMICAL NAME: Isobutane, 2-Methylpropane
SYNONYMS: Liquefied Petroleum Gas; Isobutane Mixtures
FORMULA: (iso) C_4H_{10}
CHEMICAL FAMILY: Aliphatic Hydrocarbon
SUPPLIER'S NAME: MEGS Inc.
SUPPLIER'S ADDRESS: 2675 De Miniac
Ville St-Laurent, Qc, H4S 1E5
EMERGENCY PHONE NUMBER: (514) 956-7503
MOLECULAR WEIGHT: 58.14
PRODUCT USE: Various
PRODUCT IDENTIFICATION NUMBER: UN 1969

HAZARDOUS INGREDIENTS

CHEMICAL ID	CONCENTRATION	CAS #	LD(50)	LC(50)
	100%			
Isobutane		75-28-5	None	None

PHYSICAL DATA

PHYSICAL STATE: Gas and liquid under pressure
APPEARANCE: Colorless gas and liquid
ODOR: Odorless
ODOR THRESHOLD: Not applicable
SPECIFIC GRAVITY (H_2O = 1): Liquid @ Boiling Point = 0.594
VAPOR PRESSURE: 256 kPa
VAPOR DENSITY (air = 1): 2.06

EVAPORATION RATE:	Unknown
BOILING POINT:	-11.7°C
FREEZING POINT:	-159.4°C
pH:	Unknown
GAS DENSITY:	2.388 kg/m³ @ 15°C, 101.3 kPa
COEFFICIENT OF WATER/OIL DISTRIBUTION:	@ 20°C, Bunsen Coefficient = 0.0325

FIRE OR EXPLOSION HAZARD

CONDITIONS OF FLAMMABILITY:	Flammable over a wide range in air
MEANS OF EXTINCTION:	Water, carbon dioxide, dry chemical. "Stop flow of gas before extinguishing fire".
FLASHPOINT AND METHOD OF DETERMINATION:	-83°C cc
UPPER EXPLOSION LIMIT (% BY VOL):	8.4
LOWER EXPLOSION LIMIT (% BY VOL):	1.8
AUTO-IGNITION TEMPERATURE:	420°C
FLAMMABILITY CLASSIFICATION:	Class 1, Group D
HAZARDOUS COMBUSTION PRODUCTS:	None
EXPLOSION DATA:	Yes with oxidants
SENSITIVITY TO STATIC DISCHARGE:	Yes

REACTIVITY DATA

CHEMICAL STABILITY:	Stable
INCOMPATIBLE MATERIALS:	Oxidizers
CONDITIONS OF REACTIVITY:	None
HAZARDOUS DECOMPOSITION PRODUCTS:	None

TOXICOLOGICAL PROPERTIES

ROUTES OF ENTRY:

SKIN CONTACT: Contact with the rapidly boiling liquid could cause frostbite or cryogenic "burns".

SKIN ABSORPTION: None

EYE: None

INHALATION: Moderate concentrations so as to exclude an adequate supply of oxygen to the lungs causes dizzines, drowsiness, and eventual unconsciousness. It is also a narcotic which acts as a depressant on the central nervous system.

INGESTION: None

ACUTE OVER EXPOSURE EFFECTS: Breathing high concentrations causes an anesthetic effect; however, the major property is the exclusion of an adequate supply of oxygen to the lungs.

Frostbite effects are a change in color of the skin to gray or white possibly followed by blistering.

CHRONIC OVER EXPOSURE EFFECTS: None known

EXPOSURE LIMITS: TWA = 800 molar ppm. (ACGIH 1995-1996)

IRRITANCY OF PRODUCT: None

SENSITIZATION TO MATERIAL: None

CARCINOGENICITY, REPRODUCTIVE EFFECTS: None known

TERATOGENICITY, MUTAGENICITY: None

TOXICOLOGICALLY SYNERGISTIC PRODUCTS: None

PREVENTIVE MEASURES

PERSONAL PROTECTIVE EQUIPMENT: Plastic or rubber gloves. Safety goggles or glasses. Safety shoes, safety shower, eyewash "fountain".

SPECIFIC ENGINEERING CONTROLS: Isobutane is noncorrosive and may be used with any common structural material.

LEAK AND SPILL PROCEDURES: EVACUATE ALL PERSONNEL FROM AFFECTED AREA.
Use appropriate protective equipment. If leak is in user's equipment, be certain to purge piping with an inert gas prior to attempting repairs. If leak is on container or container valve, contact the closest MEGS location.

WASTE DISPOSAL: Do not attempt to dispose of waste or unused quatities. Return in the shipping container properly labeled, with any valve outlet plugs or caps secured and valve protection cap in place to MEGS for proper disposal. For

emergency disposal, contact the closest MEGS location.

HANDLING PROCEDURES AND EQUIPMENT: USE ONLY IN WELL-VENTILATED AREAS.
Valve protection caps must remain in place unless container is secured with valve outlet piped to the point of use. Do not drag, slide or roll cylinders. Use a suitable hand truck for cylinder movement. Use a pressure reducing regulator when connecting to lower pressure piping or systems. Do not heat cylinder by any means to increase the discharge rate of product from the cylinder. Use a check valve or trap in the discharge line to prevent hazardous back flow into the cylinder. Close valve after each use and when empty.

STORAGE REQUIREMENTS: Protect cylinders from physical damage. Store in cool, dry, well-ventilated area of non combustible construction away from heavily trafficked areas and emergency exits. Do not allow the temperature where cylinders are stored to exceed 52°C. Cylinders must be stored upright and firmly secured to prevent falling or being knocked over. Full and empty cylinders should be segregated. Use a "first in - first out" inventory system to prevent full cylinders being stored for excessive periods of time. Post "No Smoking or Open Flames" signs in the storage or use area. There should be no sources of ignition in the storage or use area.

TDG CLASSIFICATION: 2.1

WHMIS CLASSIFICATION: A, B1

SPECIAL SHIPPING INFORMATION: Always secure cylinders in an upright position before transporting them. NEVER transport cylinders in trunks of vehicles, enclosed vans, truck cabs or in passenger compartments. Transport cylinders secured in open flatbed or in open pick-up type vehicles.

FIRST AID MEASURES

SPECIFIC FIRST AID PROCEDURES: PROMPT MEDICAL ATTENTION IS MANDATORY IN ALL CASES OF OVEREXPOSURE TO ISOBUTANE. RESCUE PERSONNEL SHOULD BE EQUIPPED WITH SELF-CONTAINED BREATHING APPARATUS AND BE COGNIZANT OF EXTREME FIRE AND EXPLOSION HAZARD.

INHALATION: Conscious persons should be assisted to an uncontaminated area and inhale fresh air. Quick removal from the contaminated area is most important. Unconscious persons should be moved to an uncontaminated area, given assisted respiration and supplemental oxygen. Further treatment should be symptomatic and supportive.

EYE CONTACT: PERSONS WITH POTENTIAL EXPOSURE TO ISOBUTANE SHOULD NOT WEAR CONTACT LENSES.

Flush contaminated eye(s) with copious quantities of water. Part eyelids to assure complete flushing. Continue for a minimum of 15 minutes.

SKIN CONTACT: Dermal Contact or Frostbite: Remove contaminated clothing and flush affected areas with lukewarm water. DO NOT USE HOT WATER. A physician should see the patient promptly if the cryogenic "burn" has resulted in blistering of the dermal surface of the dermal surface or deep tissue freezing.

PREPARATION INFORMATION

PREPARED BY: Safety Department

DATE PREPARED: 01/01/1999

LAST REVISION DATE: 05/21/2008