

1. PRODUCT INFORMATION

PRODUCT IDENTIFIER:**Propane****PRODUCT USE:**

Used as a chemical feedstock and fuel

SYNONYMS:

HD-5 Propane, LPG

REGULATORY CLASSIFICATION:**WHMIS:**A - Compressed Gas
B1 - Flammable gases**TDG SHIPPING NAME:**

Liquefied petroleum gas, 2.1, UN1075.

NFPA 704
(Section 16)

2. HAZARDOUS INGREDIENTS

Component	%	CAS #	LC50
Ethane	0-5	74-84-0	no data
Propane	90-99	74-98-6	no data
Propylene	0-5	115-07-1	no data
Butane	0-2.5	106-97-8	no data
Iso-butane	0-2.5	75-28-5	no data

3. PHYSICAL DATA

PHYSICAL STATE: Gas
SPECIFIC GRAVITY: 0.51 (water = 1)
ODOUR/APPEARANCE: Colourless liquid and vapour while stored under pressure. Colourless and odourless gas in natural state. May be stenched to allow detection of leaks.
ODOUR THRESHOLD: 4800 ppm
VAPOUR PRESSURE: 1435 kPa at 37.8 °C (10763 mmHg @ 100 °F)
VAPOUR DENSITY: 1.52 (air=1)
EVAPORATION RATE: Rapid (gas at normal ambient conditions)

BOILING POINT/RANGE: -42 °C (-44 °F)
FREEZING/ MELTING POINT: -188°C
VISCOSITY: n/a
PH: n/a
SOLUBILITY IN WATER: slight, 6.1% by volume 17.8°C
CO-EFFICIENT OF WATER/OIL DISTRIBUTION: n/a
PERCENT VOLATILE: 100%
MOLECULAR FORMULA: n/a - mixture
MOLECULAR WEIGHT: n/a - mixture

4. FIRE AND EXPLOSION DATA

FLASHPOINT AND METHOD: -103°C (CC) (-156 °F)**AUTO IGNITION:** 432°C (810 °F)**FLAMMABILITY LIMITS:** LEL: 2.4% UEL: 9.5%**STATIC CHARGE:**

May accumulate static charge, use proper grounding procedures

FIREFIGHTING:

Use water spray to cool fire exposed surfaces and to protect personnel. Shut off fuel to fire (if possible). If leak or spill has not ignited use water spray to disperse the vapours. Do not extinguish flames until fuel source is cut off. Extinguish with foam or dry chemical.

HAZARDOUS COMBUSTION PRODUCTS:

Carbon dioxide, carbon monoxide.

5. REACTIVITY DATA

STABILITY:

Material is stable under normal circumstances, hazardous polymerization will not occur.

INCOMPATIBLE MATERIALS AND CONDITIONS TO AVOID:

Heat, ignition sources, and oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of carbon.

6. HEALTH HAZARD DATA



MATERIAL SAFETY DATA SHEET

11098 Clyde-Savannah Road
Clyde, New York 14433
Phone: 315.923.2951

ROUTES OF ENTRY	TOXICOLOGICAL PROPERTIES	FIRST AID MEASURES
INHALATION	Causes headache, vomiting, dizziness, disorientation.	Remove victim to fresh air. Administer artificial respiration if breathing has stopped. Keep at rest. Seek medical assistance.
SKIN ABSORPTION	Not considered to be a hazard	n/a
INGESTION	Not Considered to be a hazard	n/a
SKIN CONTACT	Not considered to be a hazard. Exposure to rapidly expanding gas or vapourizing liquid may cause frostbite (cold burn)	In case of cold burns seek medical attention.
EYE CONTACT	Irritating and may injury eye tissues if not removed promptly	Immediately flush eyes with water for at least 15 minutes. Seek medical attention.
SENSITIZATION: no data		MUTAGENICITY: no data
TERATOGENICITY: no data		CHRONIC TOXICITY: no data
CARCINOGENICITY: no data		REPRODUCTIVE TOXICITY: no data

OCCUPATIONAL EXPOSURE LIMITS:

Propane: Simple asphyxiant, 1000 ppm OSHA TWA (ACGIH)

7. PREVENTATIVE MEASURES

PERSONAL PROTECTIVE EQUIPMENT:

RESPIRATOR: Where concentrations in air may exceed occupational exposure limits. Approved respirators may be required.	GLOVES: Rubber, insulated gloves	FOOTWEAR: Substantial footwear with closed tops
OTHER: No specific additional requirements	EYEWEAR: Safety Glasses with side shields or CSA approved goggles or face shields.	CLOTHING: Flame resistant coveralls

ENGINEERING CONTROLS:

The use of mechanical dilution ventilation is recommended to maintain airborne concentrations below the recommended occupational exposure limits. Use explosion proof ventilation equipment, Handle material in a closed system.

HANDLING AND STORAGE PROCEDURES:

Keep containers closed. Handle and open containers with care. Store in a cool, well ventilated place away from incompatible materials. Do not handle or store near an open flame, source of heat, or source of ignition. Materials will accumulate static charge which may cause a spark. Static charge build-up could become an ignition source. Use proper grounding procedures. Protect container from direct sunlight or other sources of excessive heat to prevent pressure build-up.

SPILL AND LEAK PROCEDURES:

Remove or shut off all sources of ignition. Increase ventilation, if possible. Use water spray to disperse vapours. Prevent additional discharge of material, if possible to do so without hazard.

WASTE DISPOSAL: Consult an expert on disposal of recovered material. Ensure disposal is in compliance with local regulations.

8. PREPARATION INFORMATION

Prepared by: Health, Safety and Environment Department	Phone: 315.923.2951	Date: January 9, 2006
---	----------------------------	------------------------------

This information relates only to the material designated and may not be valid for such material used in combination with any other materials or in any process. All statements, information, and data provided are believed to be accurate and reliable, but are presented without any guarantee, representation, warranty, or responsibility of any kind, expressed or implied. Any and all representations and/or warranties of merchantability or fitness for a particular purpose are specifically disclaimed. Users should make their own investigations as to the suitability of the information or product for their particular purpose. Nothing in this document is intended as permission, inducement, or recommendation to violate any laws or to practice any invention covered by existing patents, copyrights or inventions. We do not accept liability for any loss or damage that may occur from the use of this information.