

# R600a

MATERIAL SAFETY DATA SHEET

# Material Safety Data Sheet

## R600A

Version 2

Revision Date 10/01/2010

Print Date 01/05/2013

### SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : R600a  
Product Use Description : Refrigerant  
Company :

For more information call :

**In case of emergency call :**  
:  
:  
:

### SECTION 2. Composition / information on ingredients

INGREDIENT NAME	%VOLUME	TLV-ACGIH	CAS NUMBER
Liquefied Petroleum Gas	100	1000 ppm	75-28-5

### SECTION 3. HAZARDS IDENTIFICATION

#### EFFECTS OF OVEREXPOSURE

INGESTION: Aspiration Hazard!

INHALATION: Inhalation of vapor may produce anesthetic effects and feeling of euphoria. Prolonged overexposure can cause rapid breathing, headache, dizziness, narcosis, unconsciousness, and death from asphyxiation, depending on concentration and time of exposure.

SKIN CONTACT: Contact with evaporating liquid can cause frostbite.

EYE CONTACT: Liquid can cause severe irritation, redness, tearing, blurred vision, and possible freeze burns.

### SECTION 4. FIRST AID MEASURES

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**INGESTION:** Do not induce vomiting. Contact a physician immediately.

**INHALATION:** Remove to fresh air. If breathing has stopped, restore breathing at once. Administer oxygen and get medical help .

**SKIN CONTACT:** For liquid contact, warm areas gradually and get medical attention if there is evidence of tissue damage. Flush area with plenty of water.

**EYE CONTACT:** For liquid contact, irrigate with running water for minimum of 15 minutes. Consult physician immediately if frostbite occurs.

### SECTION 5. FIRE FIGHTING MEASURES

#### FLAMMABLE PROPERTIES

**FLASH POINT (METHOD):** -117 F (Open Cup)

**UPPER EXPLOSIVE LIMIT (vol.) gas in air:** 8.4%

**LOWER EXPLOSIVE LIMIT (vol.) gas in air:** 1.8%

#### EXTINGUISHING MEDIA:

Dry Chemical Extinguisher (B-C),

#### SPECIAL FIRE FIGHTING PROCEDURES:

Stop the release of materials if possible. Cool the vapor space of the storage container with water spray. Avoid accumulation of unburned materials. Remove personnel in general area. Observe maximum isolation when extinguishing fire. Expansion of liquid and change of state from liquid to vapor will allow combustible mixture to encompass a large area.

#### UNUSUAL FIRE AND EXPLOSION HAZARDS:

Vapors are heavier than air and may travel along the ground or may be moved by ventilation systems and ignited by pilot lights, other flames, sparks, heaters, smoking, electric motors, static discharge, or other ignition sources at locations distant from material handling point.

### SECTION 6. ACCIDENTAL RELEASE MEASURES

#### STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:

Avoid sources of ignition-Ventilate area. Use water fog to evaporate or ventilate. Protect body against contact with liquid. If confined space – Use self-contained breathing apparatus. Consult local fire authorities.

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### SECTION 7. HANDLING AND STORAGE

Comply with state and local regulations covering liquefied petroleum gases.  
Comply with NFPA Pamphlet #58.  
Store small containers in well-ventilated areas, away from heat or sources of ignition. Prohibit smoking in areas of storage or use.

### SECTION 8. EXPOSEURE CONTROLS/PERSONAL PROTECTION

#### VENTILATION

Mechanical:	Provide as needed to keep concentration in air below TLV and LEL
Local Exhaust:	Continuous ventilation recommended
Special:	Explosion proof fans and motors

#### RESPIRATORY

PROTECTION:	NIOSH approved self-contained breathing apparatus
PROTECTIVE GLOVES:	Impervious, insulated gloves recommended
EYE PROTECTION:	Face shield or goggles recommended
OTHER:	Impervious clothing for prolonged or repeated contact

### SECTION 9. PHYSICAL AND CHEMICAL

ODOR & APPEARANCE	Clear, Colorless liquefied gas with sweet petroleum odor
SOLUBILITY IN WATER @ 70 Deg. F	0.008%
SPECIFIC GRAVITY (H <sub>2</sub> O=1.00):	0.564
BOILING RANGE:	10.9 Deg. F
PRESENT VOLATILE BY VOLUME:	100%
VAPOR PRESSURE @ 70 Deg. F:	31 psig
VAPOR DENSITY (air = 1.00):	2.006
EVAPORATION RATE:	> 1 (Ethyl Ether = 1.0)

### SECTION 10. STABILITY AND REACTIVITY

#### STABILITY:

This product is stable

#### INCOMPATIBILITY (Material to Avoid):

None

#### HAZARDOUS DECOMPOSITION PRODUCTS:

Carbon Monoxide, Volatile Hydrocarbon Vapors

#### HAZARDOUS POLYMERIZATION:

Can not occur

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CONDITIONS TO AVOID:  
High Heat, Sparks & Open Flames

### SECTION 11. ECOLOGICAL INFORMATION

No data given

### SECTION 12. DISPOSAL CONSIDERATIONS

- (1) Mechanical recovery
- (2) Flare-Off at safe location (Vapors)
- (3) Exhaust to atmosphere in safe location (No open flames)

OTHER DISPOSAL CONSIDERATIONS:  
Disposal must comply with federal, state, and local disposal laws.

### SECTION 13. TRANSPORT INFORMATION

US DOT PROPER SHIPPING NAME:	Petroleum Gases, Liquefied
US DOT HAZARD CLASS:	2.1
US DOT ID NUMBER:	UN 1969
LABELED/PLACARDED	Flammable Gas

### SECTION 14. REGULATORY INFORMATION

The ingredients listed in section 2 are reported/included in the U.S.TSCA inventory and Canadian domestic substance list.  
The product is defined by OSHA in 29 CFR 19.10.1200c as a flammable gas. Use of this product may require compliance with 29 CFR 19.10.119, process safety management of highly hazardous chemicals.

### SECTION 15. OTHER INFORMATION

OTHER INFORMATION: HMIS Classification: Health – 1, Flammability – 4, Reactivity – 0

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## 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 a 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. Final determination of suitability of any material is the sole responsibility of the user. This information should not constitute a guarantee for any specific product properties.

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