# Safety Data Sheet

# Propane-1,1,1,3,3,3-$d_6$ (gas)

## Section 1. Chemical product and company identifications

**Product code:** D-0326
**Chemical formula:** $C_3H_2D_6$
**CAS:** 2875-96-9
**CAS (unlabelled):** 74-98-6
**Synonyms:**

**Supplier / Manufacturer:**

**C/D/N Isotopes Inc.**
88 Leacock Street
Pointe-Claire (Québec) H9R 1H1
Phone: 514-697-6254
Toll-Free (Canada & USA): 1-800-565-4696
Fax: 514-697-6148
Website: www.cdnisotopes.com

**In case of emergency:**

**TOXYSCAN HOTLINE: 1-855-780-0599**

## Section 2. Hazards identifications

**Physical state:** Gas
**Warning:** Extremely flammable gas. Contains gas under pressure; may explode if heated.
**Routes of entry:** Inhalation, skin and eyes

**GHS (Globally Harmonized System of Classification and Labelling of Chemicals):**

**GHS Classification:**
- Flammable gases (Category 1)
- Gases under pressure (Liquefied gas)

**GHS Label elements:**
- Pictograms:
- Signal word: Danger

**Hazards statement:**
- H220 Extremely flammable gas.
- H280 Contains gas under pressure; may explode if heated.

**Precautionary statement:**
- P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
- P410 + P403 Protect from sunlight. Store in a well-ventilated place.

## Section 3. Composition and information on ingredients

| Name | CAS | Concentration % |
|---|---|---|
| Propane-1,1,1,3,3,3-$d_6$ | 2875-96-9 | > 98 |

## Section 4. First aid measures

**Eye contact:** Flush eyes with water as a precaution.
**Skin contact:** Wash off with soap and plenty of water. Consult a physician.
**Inhalation:** If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
**Ingestion:** Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
**General advice:** Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

©2015 All rights reserved C/D/N Isotopes, Inc. / Toxyscan, Inc.

## Section 5. Firefighting measures

**Flammability of the product:** Flammable in the presence of an oxidizing gas (or air), a source of ignition, and when the concentration of the gas is between the lower and upper explosive limits. Keep away from heat/sparks/open flame/hot surface/oxidizing gas. No smoking.
**Lower explosion limit:** 2.1 Vol%
**Upper explosion limit:** 9.5 Vol%
**Auto-ignition temperature:** No data available.
**Flash point:** -104 °C (-155 °F) - closed cup
**Products of combustion:** Hazardous decomposition products formed under fire conditions: Carbon oxides.
**Firefighting media and instructions:** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
**Special protective equipment for firefighters:** Wear self-contained breathing apparatus for firefighting if necessary.

## Section 6. Accidental release measures

**Personal precautions:** Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.
**Environmental precautions:** Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
**Methods for cleaning up:** Clean up promptly by sweeping or vacuum.

## Section 7. Handling and storage

**Handling:** Avoid inhalation of vapour or mist. Use explosion-proof equipment. Keep away from sources of ignition - No smoking. Take measures to prevent the build-up of electrostatic charge.
**Storage:** Store at room temperature. Adequate ventilation. Protect from heat and ignition sources.

## Section 8. Exposure Controls, Personal Protections

**Engineering controls:** Use mechanical exhaust or laboratory fumehood to avoid exposure.
**Eyes:** Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
**Respiratory:** Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US).
**Hands:** Handle with gloves. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.
**Skin/body:** Impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

## Section 9. Physical and chemical properties (unlabelled)

**Molecular weight:** 44.10 g/mol
**Physical status:** Gas
**Color:** Colourless
**Odour:** No data available
**Density:** 0.564 g/mL at 20 °C (68 °F)
**Melting point:** -188 °C (-306 °F) - lit.
**Boiling point:** -42 °C (-44 °F) - lit.
**Vapour pressure:** 8,531 hPa (6,399 mmHg) at 21 °C (70 °F)
**Vapour density:** 1.52 (Air = 1)
**Partition coefficient (octanol/water):** log Pow: 2.36
**Water solubility:** 62.4 mg/L

## Section 10. Stability and reactivity

**Stability and reactivity:** Stable under recommended storage conditions.
**Incompatibility:** Strong oxidizing agents.
**Products of combustion:** Hazardous decomposition products formed under fire conditions: Carbon oxides.
**Reactivity conditions:** Heat, flames and sparks. Extremes of temperature and direct sunlight.

©2015 All rights reserved C/D/N Isotopes, Inc. / Toxyscan, Inc.

## Section 11. Toxicological information (unlabelled)

**Toxicological data:** Propane

**Information on ingredients:**

| Name | CAS | $LD_{50}$ | $LC_{50}$ |
|---|---|---|---|
| Propane | 74-98-6 | No data available | No data available |

**Potential acute effects**

- **Eyes:** May cause eye irritation.
- **Skin:** May be harmful if absorbed through skin. May cause skin irritation.
- **Inhalation:** May be harmful if inhaled. May cause respiratory tract irritation.
- **Ingestion:** May be harmful if swallowed.

**Potential chronic effects**

- **Carcinogenic effects:** IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
- **Mutagenic effects:** No data available.
- **Teratogenic effects:** No data available.
- **Medical conditions aggravated by overexposure:** No data available.

## Section 12. Ecological information

**Ecological data:**

| Name | Results | Species | Period |
|---|---|---|---|
| Propane | No data available | | |

**Effects on environment:** No data available.
**Mobility:** No data available.
**Environmental precautions:** No data available.
**Persistence and degradability:** No data available.
**Bioaccumulative potential:** No data available.

## Section 13. Disposal considerations

**Waste disposal:** Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

## Section 14. Transportation information

**Classification DOT/IMDG/IATA label:**

**Shipping name:** Propane
**UN number:** UN1978
**Class:** 2.1
**Packaging group:** none

**Additional information:** None

©2015 All rights reserved C/D/N Isotopes, Inc. / Toxyscan, Inc.

## Section 15. Regulatory information

**UNITED STATES:**
**NFPA classification**

Health: 0
Flammable: 4
Reactivity: 3
Specials conditions: None

**Legend: 4: Severe, 3: High, 2: Moderate, 1: Slightly, 0: Not hazardous**

**U.S. Federal regulations:**

**TSCA 8(b) inventory:** Propane
**SARA 302/304/311/312 extremely hazardous substances:** Not Listed
**SARA 302/304 emergency planning and notification:** Not Listed
**SARA 302/304/311/312 hazardous chemicals:** Not Listed
**SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard:** Not Listed
**CWA (Clean Water Act) 307:** Not Listed
**CWA (Clean Water Act) 311:** Not Listed
**CAA (Clean Air Act) 112 accidental release prevention:** Not Listed
**CAA (Clean Air Act) 112 regulated flammable substances:** Not Listed
**CAA (Clean Air Act) 112 regulated toxic substances:** Not Listed

**State regulations:**

**DEA List I Chemicals (Precursor Chemicals):** Not Listed
**DEA List II Chemicals (Essential Chemicals):** Not Listed
**Substances in Massachusetts:** Not Listed
**Dangerous substances in New Jersey:** Not Listed
**New York – Dangerous substances with acute effects:** Not Listed
**Dangerous substances in Pennsylvania – right to know:** Not Listed

**WHMIS (Canada):**

A Compressed Gas

B1 Flammable gas

## Section 16. Additional information

**References:**


- ANSI Z400.1, MSDS Standard, 2001.
- Manufacturer's Material Safety Data Sheet.
- 29CFR Part1910.1200 OSHA MSDS Requirements.
- 49CFR Table List of Hazardous Materials, UN#, Proper Shipping Names, PG. -Canada
- Gazette Part II, Vol. 122, No. 2 Registration SOR/88-64 31 December, 1987 Hazardous Products Act "Ingredient Disclosure List".
- Federal act on the controlled products
- Canadian Transport of Dangerous Goods, Regulations and Schedules, Clear Language version 2002.
- Toxicological repertory, HSC.
- Material safety data sheet from the components.


**Date of issue:** **November 1st, 2016**
**Version:** 1
**Elaborated by:** **Toxyscan Inc., 1-866-780-0599**
**Notice to reader:** To the best of our knowledge, the information contained herein is accurate. However, C/D/N Isotopes Inc., Toxyscan Inc., or any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

©2015 All rights reserved C/D/N Isotopes, Inc. / Toxyscan, Inc.