



# Safety Data Sheet

## Propane

### Section 1: Product and Company Identification

**Tech Air**

50 Mill Plain Rd.  
Danbury, CT 06811  
203-792-1834 | <http://techair.com>  
Email: [Safety@techair.com](mailto:Safety@techair.com)

EMERGENCY PHONE: P.E.R.S #800-633-8253

International: 1-801-629-0667

Product Code: Propane

### Section 2: Hazards Identification



## Danger

**Hazard Classification:**

Flammable (Category 1)  
Gases Under Pressure

**Hazard Statements:**

Contains gas under pressure; may explode if heated  
Extremely flammable gas

**Precautionary Statements****Prevention:**

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

**Response:**

Eliminate all ignition sources if safe to do so.  
Leaking gas fire: Do not extinguish, unless leak can be stopped safely.

**Storage:**

Protect from sunlight.  
Store in well-ventilated place.

## Section 3: Composition/Information on Ingredients

| CAS #   |
|---------|
| 74-98-6 |

| Chemical Substance | Chemical Family         | Trade Names  |
|--------------------|-------------------------|--|
| PROPANE            | hydrocarbons, aliphatic | N-PROPANE; DIMETHYLMETHANE; PROPYL HYDRIDE; R-290; PROPYLHYDRIDE; LIQUEFIED PETROLEUM GAS; LPG; >96% NATURAL GRADE; >99.9% PURE GRADE; UN 1978; C3H8 |

## Section 4: First Aid Measures

| Skin Contact   | Eye Contact   | Ingestion  | Inhalation   | Note to Physicians               |
|--|---|--|--|----------------------------------|
| If frostbite or freezing occur, immediately flush with plenty of lukewarm water (105-115 F; 41-46 C). DO NOT USE HOT WATER. If warm water is not available, gently wrap affected parts in blankets. Get immediate medical attention. | Contact with liquid: Immediately flush eyes with plenty of water for at least 15 minutes. Then get immediate medical attention. | If a large amount is swallowed, get medical attention. | If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. If breathing is difficult, oxygen should be administered by qualified personnel. Get immediate medical attention. | For inhalation, consider oxygen. |

## Section 5: Fire Fighting Measures

| Suitable Extinguishing Media  | Products of Combustion  | Protection of Firefighters  |
|---|---|---|
| Regular dry chemical, high expansion foam Large fires: Flood with fine water spray. Avoid carbon dioxide. | Carbon monoxide, carbon dioxide, water and toxic and irritating fumes | <ul style="list-style-type: none"><li>Any self-contained breathing apparatus with a full facepiece.</li><li>Any self-contained breathing apparatus with a full facepiece.</li></ul> |

## Section 6: Accidental Release Measures

| Personal Precautions  | Environmental Precautions                                 | Methods for Containment  |
|---|---|--|
| Keep unnecessary people away, isolate hazard area and deny entry. Ventilate closed spaces before entering. Do not touch spilled material. | Avoid heat, flames, sparks and other sources of ignition. | Stop leak if possible without personal risk. Reduce vapors with water spray. Remove sources of ignition. |

| Methods for Cleanup         | Other Information |
|-----------------------------|-------------------|
| Contact emergency personnel | None              |

## Section 7: Handling and Storage

| Handling  | Storage                                      |
|---|--|
| Store and handle in accordance with all current regulations and standards. Grounding and bonding required. Subject to storage regulations: U.S. OSHA 29 CFR 1910.101. | Keep separated from incompatible substances. |

## Section 8: Exposure Controls/Personal Protection

| Exposure Guidelines |
|---------------------|
|---------------------|

### Exposure Guidelines

PROPANE: 1000 ppm (1800 mg/m<sup>3</sup>) OSHA TWA 1000 ppm (1800 mg/m<sup>3</sup>) NIOSH recommended TWA 10 hour(s) LIQUIFIED PETROLEUM GAS (LPG): 1000 ppm (1800 mg/m<sup>3</sup>) OSHA TWA 1000 ppm ACGIH TWA 1000 ppm (1800 mg/m<sup>3</sup>) NIOSH recommended TWA 10 hour(s) ALIPHATIC HYDROCARBON GASES ALKANE (C1-C4): 1000 ppm ACGIH TWA

### Engineering Controls

Handle only in fully enclosed systems.

| Eye Protection   | Skin Protection  | Respiratory Protection  |
|--|--|---|
| For the gas: Eye protection not required, but recommended. For the liquid: Wear splash resistant safety goggles. Contact lenses should not be worn. Provide an emergency eye wash fountain and quick drench shower in the immediate work area. | For the gas: Protective clothing is not required. For the liquid: Wear appropriate protective, cold insulating clothing. | Any self-contained breathing apparatus with a full facepiece. |

### General Hygiene considerations

- Avoid breathing vapor or mist
- Avoid contact with eyes and skin
- Wash thoroughly after handling and before eating or drinking

## Section 9: Physical and Chemical Properties

| Physical State | Appearance | Color     | Change in Appearance | Physical Form | Odor          | Taste |
|----------------|------------|-----------|----------------------|---------------|---------------|-------|
| Gas            | Clear      | Colorless | N/A                  | Gas           | Gasoline odor | N/A   |

| Flash Point     | Flammability  | Partition Coefficient | Autoignition Temperature | Upper Explosive Limits | Lower Explosive Limits |
|-----------------|---------------|-----------------------|--------------------------|------------------------|------------------------|
| -157 F (-105 C) | Not available | Not available         | 842 F (450 C)            | 0.095                  | 0.021                  |

| Boiling Point | Freezing Point  | Vapor Pressure     | Vapor Density | Specific Gravity | Water Solubility      | pH             | Odor Threshold | Evaporation Rate | Viscosity     |
|---------------|-----------------|--------------------|---------------|------------------|-----------------------|----------------|----------------|------------------|---------------|
| -40 F (-40 C) | -310 F (-190 C) | 6398 mmHg @ 21.1 C | 1.55 (Air=1)  | 0.5853 @ -45 C   | Very slightly soluble | Not applicable | 5000-20000 ppm | Not applicable   | Not available |

| Molecular Weight | Molecular Formula | Density | Weight per Gallon | Volatility by Volume | Volatility     | Solvent Solubility  |
|------------------|-------------------|---------|-------------------|----------------------|----------------|---|
| 44.11            | C-H3-C-H2-C-H3    | 0.116   | Not available     | Not available        | Not applicable | Soluble: Absolute alcohol, ether, chloroform, benzene, turpentine |

## Section 10: Stability and Reactivity

| Stability                                   | Conditions to Avoid                         | Incompatible Materials   |
|---|---|--|
| Stable at normal temperatures and pressure. | Stable at normal temperatures and pressure. | Oxidizing materials, combustible materials, halogen compounds, |

| Hazardous Decomposition Products | Possibility of Hazardous Reactions |
|----------------------------------|------------------------------------|
| Oxides of carbon                 | Will not polymerize.               |

## Section 11: Toxicology Information

### Acute Effects

| Oral LD50                                       | Dermal LD50   | Inhalation   |
|---|---------------|--|
| LC50 Inhalation Gas. Rat >800000 ppm 15 minutes | Not available | Nausea, vomiting, irregular heartbeat, headache, symptoms of drunkenness, disorientation, suffocation, convulsions, coma |

| Eye Irritation                    | Skin Irritation             | Sensitization   |
|-----------------------------------|-----------------------------|---|
| Liquid: frostbite, blurred vision | Liquid: blisters, frostbite | Central nervous system depression, difficulty breathing |

## Chronic Effects

| Carcinogenicity | Mutagenicity  | Reproductive Effects | Developmental Effects |
|-----------------|---------------|----------------------|-----------------------|
| Not available   | Not available | Not available        | No data               |

## Section 12: Ecological Information

### Fate and Transport

| Eco toxicity  | Persistence / Degradability | Bioaccumulation / Accumulation | Mobility in Environment |
|---|-----------------------------|--------------------------------|-------------------------|
| Fish toxicity: Not available<br>Invertebrate toxicity: Not available<br>Algal toxicity: Not available<br>Phyto toxicity: Not available<br>Other toxicity: Not available | Not available               | Not available                  | Not available           |

## Section 13: Disposal Considerations

Dispose in accordance with all applicable regulations. Subject to disposal regulations: U.S. EPA 40 CFR 262. Hazardous Waste Number(s): D001.

## Section 14: Transportation Information

### U.S. DOT 49 CFR 172.101

| Proper Shipping Name | ID Number | Hazard Class or Division | Packing Group  | Labeling Requirements | Passenger Aircraft or Railcar Quantity Limitations | Cargo Aircraft Only Quantity Limitations | Additional Shipping Description |
|----------------------|-----------|--------------------------|----------------|-----------------------|--|--|---------------------------------|
| Propane              | UN1978    | 2.1                      | Not applicable | 2.1                   | Forbidden  | 150 kg                                   | N/A                             |

### Canadian Transportation of Dangerous Goods

| Shipping Name | UN Number | Class | Packing Group / Risk Group |
|---------------|-----------|-------|----------------------------|
| Propane       | UN1978    | 2.1   | Not applicable             |

## Section 15: Regulatory Information

### U.S. Regulations

| CERCLA Sections | SARA 355.30    | SARA 355.40    |
|-----------------|----------------|----------------|
| Not regulated.  | Not regulated. | Not regulated. |

### SARA 370.21

| Acute | Chronic | Fire | Reactive | Sudden Release |
|-------|---------|------|----------|----------------|
| Yes   | No      | Yes  | No       | Yes            |

### SARA 372.65

Not regulated.

### OSHA Process Safety

Not regulated.

### State Regulations

#### CA Proposition 65

Not regulated.

### Canadian Regulations

#### WHMIS Classification

A, B1.

### National Inventory Status

| US Inventory (TSCA)  | TSCA 12b Export Notification | Canada Inventory (DSL/NDSL) |
|----------------------|------------------------------|-----------------------------|
| Listed on inventory. | Not listed.                  | Listed on inventory.        |

## Section 16: Other Information

**NFPA Rating**  
HEALTH=1 FIRE=4 REACTIVITY=0

0 = minimal hazard, 1 = slight hazard, 2 = moderate hazard, 3 = severe hazard, 4 = extreme hazard