

# Safety Data Sheet

## Propylene, liquified

**United States Cylinder Gas**  
11618 S Mayfield Ave, Alsip, Illinois, 60803  
Emergency Phone: CHEMTREC 1-800-424-9300  
www.uscylgas.com

### Section 1: Product and Company Identification

**United States Cylinder Gas**  
11618 S Mayfield Ave., Alsip, Illinois, 60803  
(708) 389-1402  
Emergency Phone: CHEMTREC 1-800-424-9300  
www.uscylgas.com

Product Code: **Propylene**  
Part Number: PROPY30, PROPY60, PROPY115  
**Synonyms:** C3H6, Propy  
**Recommended Use:** Industrial use. Use as directed.  
**Usage Restrictions:**

### Section 2: Hazards Identification



**Hazard Classification:** Flammable (Category 1), H220  
Gases Under Pressure, H280  
Simple Asphyxiant, OSHA-H01

**Hazard Statements:** H220: Extremely flammable gas  
H280: Contains gas under pressure; may explode if heated  
CGA-HG04: MAY FORM EXPLOSIVE MIXTURES WITH AIR.  
OSHA-H01: MAY DISPLACE OXYGEN AND CAUSE RAPID SUFFOCATION.

**Precautionary Statements**

P202: Do not handle until all safety precautions have been read and understood.  
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P271+P403: Use and store only outdoors or in a well-ventilated place.  
P377: Leaking gas fire: Do not extinguish, unless leak can be stopped safely.  
P381: In case of leakage, eliminate all ignition sources.  
CGA-PG02: Protect from sunlight when ambient temperature exceeds 52C (125F).  
CGA-PG05: Use a back flow preventive device in the piping.  
CGA-PG06: Close valve after each use and when empty.  
CGA-PG10+CGA-PG20: Use only with equipment of compatible materials of construction and rated for cylinder pressure.  
CGA-PG12: Do not open valve until connected to equipment prepared for use.  
CGA-PG27: Read and follow the Safety Data Sheet (SDS) before use.

### Section 3: Composition/Information on Ingredients

|           | CAS #    | Concentration |
|-----------|----------|---------------|
| Propylene | 115-07-1 | 100%          |

|           | Trade Names   |
|-----------|---|
| Propylene | PROPYLENE<br>Propene<br>prop-1-ene<br>1-Propene<br>Methylethylene<br>Methylethene |

### Section 4: First Aid Measures

IF ON SKIN: wash with plenty of water. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Get medical advice/attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.

### Section 5: Fire Fighting Measures

**Suitable Extinguishing Media:**

Dry powder, carbon dioxide, cool surrounding area with fine water mist.

**Protection of Firefighters:**

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

|           | Products of Combustion               |
|-----------|--------------------------------------|
| Propylene | Miscellaneous decomposition products |

### Section 6: Accidental Release Measures

**Personal Precautions:**

Keep unnecessary people away, isolate hazard area and deny entry. Ventilate closed spaces before entering.

**Environmental Precautions:**

Keep away from drains, surface and ground water. Avoid heat, flames, sparks and other sources of ignition.

**Methods for Containment and Cleanup:**

Stop leak if possible without personal risk. Reduce vapors with water spray. Remove sources of ignition. If necessary, cover drains. Absorb large spills, dispose in appropriate containers.

### Section 7: Handling and Storage

**Handling:**

See precautions in Section 2. Only trained personnel should handle this product. Always use approved personal protective equipment.

**Storage:**

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Store and handle in accordance with all current regulations and standards. Store in a well-ventilated area. Keep separated from incompatible substances.

|           | Incompatibilities  | Conditions to avoid   |
|-----------|--|---|
| Propylene | Oxidizing materials, halo carbons, halogens, acids, water, nitrogen oxides | Avoid heat, flames, sparks and other sources of ignition. Minimize contact with material. Containers may rupture or explode if exposed to heat. |

## Section 8: Exposure Controls/Personal Protection

| Exposure Guidelines | Threshold Limit Value -TLV (ppm) |
|---------------------|----------------------------------|
| Propylene           | Not Available                    |

### Engineering Controls

No specific controls are needed.

|                               |  |
|-------------------------------|--|
| <b>Eye Protection</b>         | Wear splash resistant safety goggles.                |
| <b>Skin Protection</b>        | Wear chemical protective clothing, including gloves. |
| <b>Respiratory Protection</b> | Use self-contained breathing apparatus.              |

### 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 / Physical Form | Appearance / Color | Odor                      | Flash Point     | Flammability | Partition Coefficient |
|-----------|--------------------------------|--------------------|---------------------------|-----------------|--------------|-----------------------|
| Propylene | Gas                            | Colorless          | Faint gasoline-like odour | -162 F (-108 C) | True         | 2                     |

|           | Autoignition Temperature | Upper Explosive Limits | Lower Explosive Limits | Boiling Point | Freezing Point  | Vapor Pressure |
|-----------|--------------------------|------------------------|------------------------|---------------|-----------------|----------------|
| Propylene | 851 F (455 C)            | 11.1                   | 1.8                    | -53 F (-47 C) | -301 F (-185 C) | 151.78         |

|           | Vapor Density | Specific Gravity | Water Solubility | pH | Evaporation Rate | Viscosity        |
|-----------|---------------|------------------|------------------|----|------------------|------------------|
| Propylene | 1.5           | Not applicable   | 0.45             | 0  | Not applicable   | 0.140 cP @ -40 C |

|           | Molecular Weight | Molecular Formula | Density   | Volatility     | Solvent Solubility                    |
|-----------|------------------|-------------------|-----------|----------------|---------------------------------------|
| Propylene | 42.081           | C-H3-C-H-C-H2     | 0.5129097 | Not applicable | Soluble : Alcohol, ether, acetic acid |

## Section 10: Stability and Reactivity

|           | Stability  | Conditions to Avoid   | Incompatible Materials   |
|-----------|--|---|--|
| Propylene | May polymerize. May react on contact with air, heat, light or water. | Avoid heat, flames, sparks and other sources of ignition. Minimize contact with material. Containers may rupture or explode if exposed to heat. | Oxidizing materials, halo carbons, halogens, acids, water, nitrogen oxides |

|           | Hazardous Decomposition Products     | Possibility of Hazardous Reactions  |
|-----------|--------------------------------------|---|
| Propylene | Miscellaneous decomposition products | May polymerize. Avoid contact with heat, light, air, water or incompatible materials. Polymerizes with evolution of heat. |

## Section 11: Toxicology Information

The toxicology information is calculated for the mixture.

### Acute Toxicity Estimates (ATE) of the mixture.

|                      |               |
|----------------------|---------------|
| Oral ATE (mg/kg)     | Not Available |
| Inhalation ATE (ppm) | Not Available |
| Dermal ATE (mg/kg)   | Not Available |

### Additional health hazards:

OSHA-H01: MAY DISPLACE OXYGEN AND CAUSE RAPID SUFFOCATION.

|                                   |               |
|-----------------------------------|---------------|
| Skin Corrosion/Irritation         | Not Available |
| Eye Damage/Irritation             | Not Available |
| Respiratory or Skin Sensitization | Not Available |
| Germ Cell Mutagenicity            | Not Available |
| Carcinogenicity                   | Not Available |
| Reproductive Toxicity             | Not Available |
| STOT – single exposure            | Not Available |
| STOT – repeated exposure          | Not Available |
| Aspiration Hazard                 | Not Available |

## Section 12: Ecological Information

### Fate and Transport

|                  | Eco toxicity   | Persistence / Degradability   | Bioaccumulation / Accumulation         | Mobility in Environment                                  |
|------------------|--|---|--|--|
| <b>Propylene</b> | Fish toxicity: 0<br>Invertebrate toxicity: Algal toxicity: Phyto toxicity: Other toxicity: | Relatively non-persistent in the environment. Moderately volatile from water. | 0.40 (estimated from water solubility) | Leaches through the soil or the sediment at a slow rate. |

## Section 13: Disposal Considerations

Dispose in accordance with all applicable regulations. Do not dispose in sewers or waterways. Recycle if possible to do so. Return to manufacturer for disposal if needed.

## Section 14: Transportation Information

### U.S. DOT 49 CFR 172.101

|                  | Proper Shipping Name | ID Number | Hazard Class or Division | Packing Group | Passenger Aircraft or Railcar Quantity Limitations | Cargo Aircraft Only Quantity Limitations | Additional Shipping Description |
|------------------|----------------------|-----------|--------------------------|---------------|--|--|---------------------------------|
| <b>Propylene</b> | Propylene            | UN1077    | 2.1                      | Not available | Not available                                      | Not available                            | Not available                   |

### Canadian Transportation of Dangerous Goods

|  | Shipping Name | UN Number | Class | Packing Group / Risk Group |
|--|---------------|-----------|-------|----------------------------|
|--|---------------|-----------|-------|----------------------------|

|           |           |        |     |               |
|-----------|-----------|--------|-----|---------------|
| Propylene | Propylene | UN1077 | 2.1 | Not Available |
|-----------|-----------|--------|-----|---------------|

## Section 15: Regulatory Information

### U.S. Regulations

|           | CERCLA Sections | SARA 355.30    | SARA 355.40    |
|-----------|-----------------|----------------|----------------|
| Propylene | Not Regulated.  | Not Regulated. | Not Regulated. |

### SARA 370.21

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

### SARA 372.65

|           |         |
|-----------|---------|
| Propylene | Listed. |
|-----------|---------|

### OSHA Process Safety

|           |                |
|-----------|----------------|
| Propylene | Not regulated. |
|-----------|----------------|

### State Regulations

|           | CA Proposition 65 |
|-----------|-------------------|
| Propylene | Not regulated.    |

### Canadian Regulations

|           | WHMIS Classification |
|-----------|----------------------|
| Propylene | A, B1.               |

### National Inventory Status

|           | US Inventory (TSCA) | TSCA 12b Export Notification | Canada Inventory (DSL/NDSL) |
|-----------|---------------------|------------------------------|-----------------------------|
| Propylene | 1-Propene           | Not listed.                  | Listed on DSL.              |

## Section 16: Other Information

|           | NFPA Rating                                   |
|-----------|---|
| Propylene | Health = 1, Flammability = 4, Instability = 1 |

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