

# Safety Data Sheet

Methane

US Cylinder Gas  
Alsip, IL



## Section 1: Product and Company Identification

US Cylinder Gas  
Alsip, IL

Product Code: **Methane**

Part Number: 74-82-8

**Synonyms:** CH<sub>4</sub>

**Recommended Use:** Industrial use. Use as directed.

**Usage Restrictions:**

## Section 2: Hazards Identification



**Danger**

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: Eliminate all ignition sources if safe to do so.

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

<b>CAS #</b>
74-82-8

Chemical Substance	Chemical Family	Trade Names
METHANE, COMPRESSED GAS	Hydrocarbons, Aliphatic, Saturated	FIRE DAMP; MARSH GAS; METHYL HYDRIDE; NATURAL GAS; METHANE; UN 1971; R50; CH4

### Section 4: First Aid Measures

Skin Contact	Eye Contact	Ingestion	Inhalation	Note to Physicians
Wash exposed skin with soap and water.	Flush eyes with plenty of water.	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
Carbon dioxide, regular dry chemical Large fires: Use regular foam or flood with fine water spray.	Carbon monoxide, carbon dioxide, water	<ul style="list-style-type: none"> <li>Respiratory protection may be needed for frequent or heavy exposure. Any self-contained breathing apparatus with a full facepiece.</li> <li>Respiratory protection may be needed for frequent or heavy exposure. 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.	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
Not available	NOT AVAILABLE

### 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

METHANE, COMPRESSED GAS: ALIPHATIC HYDROCARBON GASES ALKANE (C1-C4): 1000 ppm ACGIH TWA METHANE: No occupational exposure limits established. ALIPHATIC HYDROCARBON GASES ALKANE (C1-C4): 1000 ppm ACGIH TWA

### Engineering Controls

Handle only in fully enclosed systems.

Eye Protection	Skin Protection	Respiratory Protection
Eye protection not required, but recommended.	Protective clothing is not required. Wear appropriate chemical resistant gloves.	Respiratory protection may be needed for frequent or heavy exposure. 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
Gas	Colorless	Colorless	N/A	Gas	Odorless

Taste	Flash Point	Flammability	Partition Coefficient	Autoignition Temperature	Upper Explosive Limits
Tasteless	-369 F (-223 C)	Not available	724.44 (log = 2.87) (estimated from water solubility)	999 F (537 C)	15%

Lower Explosive Limits	Boiling Point	Freezing Point	Vapor Pressure	Vapor Density	Specific Gravity
5%	-260 F (-162 C)	-297 F (-183 C)	760 mmHg @ -161 C	0.555 (Air=1)	Not applicable

Water Solubility	pH	Odor Threshold	Evaporation Rate	Viscosity	Molecular Weight
3.5% @ 17 C	Not applicable	Not available	Not applicable	0.01118 cP @ 27 C	16.04

Molecular Formula	Density	Weight per Gallon	Volatility by Volume	Volatility	Solvent Solubility
C-H4	0.717 g/L @ 0 C	Not available	Not applicable	Not applicable	Soluble : Alcohol, ether, benzene, organic solvents

## Section 10: Stability and Reactivity

Stability	Conditions to Avoid	Incompatible Materials
Stable at normal temperatures and pressure.	Avoid heat, flames, sparks and other sources of ignition. Containers may rupture or explode if exposed to heat.	Halogens, oxidizing materials, combustible materials

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

## Section 11: Toxicology Information

### Acute Effects

Oral LD50	Dermal LD50	Inhalation
Not available	Not available	Nausea, vomiting, difficulty breathing, irregular heartbeat, headache, drowsiness, fatigue, dizziness, disorientation, mood swings, tingling sensation, loss of coordination, suffocation, convulsions, unconsciousness, coma

Eye Irritation	Skin Irritation	Sensitization
No information on significant adverse effects	No information on significant adverse effects	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 Invertebrate toxicity: Not available Algal toxicity: Not available Phyto toxicity: Not available Other toxicity: Not available	Relatively non-persistent in the environment. Moderately volatile from water.	Accumulates very little in the bodies of living organisms.	Not expected to leach through the soil or the sediment.

## 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
Methane, compressed	UN1971	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
Methane, compressed	UN1971	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=0 FIRE=4 REACTIVITY=0

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