



# Material Safety Data Sheet

## Methane, Compressed

AXCEL GASES

Creation Date: 04.02.2008

MSDS No. : AX-05  
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### 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY

**Product name:** Methane Compressed  
**Chemical formula:** CH<sub>4</sub>  
**Known uses:** Not known  
**Company:** Axcel Gases  
**Head Office:**  
1K/49, NIT, Faridabad, 121001, India  
**Email:** [info@axcelgases.com](mailto:info@axcelgases.com)  
**Works:**  
80 KM Delhi-Jaipur Highway, Distt. Rewari, 123106  
Haryana, India  
**Email:** [info@axcelgases.com](mailto:info@axcelgases.com)

### 2. HAZARDS IDENTIFICATION

**Classification of the substance or mixture**

**Classification acc. to Regulation (EC) No 1272/2008/EC (CLP/GHS)**

Press. Gas (Compressed gas) - Contains gas under pressure; may explode if heated.  
Flam. Gas 1 - Extremely flammable gas.

**Classification acc. to Directive 67/548/EEC & 1999/45/EC**

F+; R12  
Extremely flammable.

**Risk advice to man and the environment**

In high concentrations may cause asphyxiation. Compressed gas.

**Label Elements**

**- Labelling Pictograms**



**-Signal word**

Danger

**- Hazard Statements**

H280 Contains gas under pressure; may explode if heated.

H220 Extremely flammable gas.

**- Precautionary Statements**

**Precautionary Statement Prevention**

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

**Precautionary Statement Reaction**

P377 Leaking gas fire: Do not extinguish, unless leak can be stopped safely.

P381 Eliminate all ignition sources if safe to do so.

**Precautionary Statement Storage**

P403 Store in a well-ventilated place.

**Precautionary Statement Disposal**

None.



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### 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Substance/Preparation:** Substance.

**Components/Impurities**

Methane, Compressed

**CAS No.:** 74-82-8

**Index-Nr.:** 601-001-00-4

**EC No (from EINECS) :** 200-812-

**7 REACH Registration number:**

Not Available

Contains no other components or impurities which will influence the classification of the product.

### 4. FIRST AID MEASURES

**Inhalation:**

In high concentrations may cause asphyxiation. Symptoms may include loss of mobility/consciousness. Victim may not be aware of asphyxiation. Symptoms may include dizziness, headache, nausea and loss of co-ordination. Remove victim to uncontaminated area wearing self contained breathing apparatus. Keep victim warm and rested. Call a doctor. Apply artificial respiration if breathing stopped.

**Ingestion:**

Ingestion is not considered a potential route of exposure

### 5. FIRE FIGHTING MEASURES

**Specific hazards :** Exposure to fire may cause containers to rupture/explode.

**Hazardous combustion products :** Incomplete combustion may form carbon monoxide.

**Suitable extinguishing media :** All known extinguishants can be used.

**Specific methods :** If possible, stop flow of product. Move container away or cool with water from a protected position. Do not extinguish a leaking gas flame unless absolutely necessary. Spontaneous/explosive re-ignition may occur.

**Special protective equipment for fire fighters :** In confined space use self-contained breathing apparatus.

### 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions**

Wear self-contained breathing apparatus when entering area unless atmosphere is proved to be safe. Ensure adequate air ventilation. Eliminate ignition sources.

**Environmental precautions:** Try to stop release.

**Clean up methods :** Ventilate area.

### 7. HANDLING AND STORAGE

**Handling**

Ensure equipment is adequately earthed. Suck back of water into the container must be prevented. Purge air from system before introducing gas. Use only properly specified equipment which is suitable for this product, its supply pressure and temperature. Contact your gas supplier if in doubt. Keep away from ignition sources (including static discharges). Segregate from oxidant gases and other oxidants in store. Refer to supplier's handling instructions.

**Storage**

Observe "Technische Regeln Druckgase (TRG) 280 Ziffer 5" Keep container below 50°C in a well ventilated place. Segregate from oxidant gases and other oxidants in store.

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Personal protection:** Ensure adequate ventilation. Do not smoke while handling product.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

**General information**

**Appearance/Colour:** Colourless gas.

**Odour:** None

**Important information on environment, health and safety Molecular weight:** 16 g/mol

**Melting point:** -182 °C

**Boiling point:** -161 °C

**Critical temperature:** -82 °C

**Autoignition temperature:** 595 °C

**Flammability range:** 4,4 %(V) - 15 %(V)

**Relative density, gas:** 0,6

**Solubility mg/l water:** 26 mg/l

**Maximum filling pressure (bar):** 200 bar



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### 10. STABILITY AND REACTIVITY

**Stability and reactivity :** Can form explosive mixture with air. May react violently with oxidants.

### 11. TOXICOLOGICAL INFORMATION

**General:** No known toxicological effects from this product.

### 12. ECOLOGICAL INFORMATION

**General:** No known ecological damage caused by this product.

### 13. DISPOSAL CONSIDERATIONS

**General :** Do not discharge into areas where there is a risk of forming an explosive mixture with air. Waste gas should be flared through a suitable burner with flash back arrestor. Do not discharge into any place where its accumulation could be dangerous. Contact supplier if guidance is required.

**EWC Nr. 16 05 04\***

### 14. TRANSPORT INFORMATION

#### ADR/RID

Class: 2

Classification Code: 1F

#### UN number and proper shipping name

UN 1971 Methane, compressed

UN 1971 Methane, compressed

Labels: 2.1

Hazard number: 23

Packing Instruction: P200

#### IMDG

Class : 2.1

#### UN number and proper shipping name

UN 1971 Methane, Compressed

Labels : 2.1

Packing Instruction : P200

EmS: FD,SU

#### IATA

Class : 2.1

#### UN number and proper shipping name

UN 1971 Methane, Compressed

Labels : 2.1

Packing Instruction: P200

#### Other transport information

Avoid transport on vehicles where the load space is not separated from the driver's compartment. Ensure vehicle driver is aware of the potential hazards of the load and knows what to do in the event of an accident or an emergency. Before transporting product containers ensure that they are firmly secured. Ensure that the cylinder valve is closed and not leaking. Ensure that the valve outlet cap nut or plug (where provided) is correctly fitted. Ensure that the valve protection device (where provided) is correctly fitted. Ensure adequate ventilation. Ensure compliance with applicable regulations.

### 15. REGULATORY INFORMATION

#### Further national regulations :-

Regulations for the prevention of industrial accidents

Pressure Vessel Regulation

Gefahrstoffverordnung (GefStoffV)

Technische Regeln für Gefahrstoffe (TRGS)

#### Water pollution class

Not polluting to waters according to VwVwS from 17.05.99.

**TA-Luft:** Not classified according to TA-Luft.



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**16. OTHER INFORMATION**

Ensure all national/local regulations are observed. Ensure operators understand the flammability hazard. The hazard of asphyxiation is often overlooked and must be stressed during operator training. Before using this product in any new process or experiment, a thorough material compatibility and safety study should be carried out.

**Advice**

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