



Material Safety Data Sheet Acetylene, Dissolved

AXCEL GASES

Creation Date: 15.01.2008

MSDS No. : AX-01
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1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY

Product name: Acetylene Dissolved
Chemical formula: C₂H₂
Known uses: Not known
Company: Axcel Gases
Head Office:
1K/49, NIT, Faridabad, 121001, India
Email: info@axcelgases.com
Works:
80 KM Delhi-Jaipur Highway, Distt. Rewari, 123106
Haryana, India
Email: info@axcelgases.com

2. HAZARDS IDENTIFICATION

Classification: Heating may cause an explosion. Explosive with or without contact with air. Extremely flammable.
Risk advice to man and the environment: Dissolved gas

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/Preparation: Substance.
Components/Impurities
CAS Nr: 74-86-2
EEC Nr (from EINECS) : 200-816-9
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. In low concentrations may cause narcotic effects. 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. 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. Evacuate area. 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). Refer to supplier's handling instructions.

Storage

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



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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Personal protection: Ensure adequate ventilation. Do not smoke while handling product. Wear suitable hand, body and head protection. Wear goggles with suitable filter lenses when use is cutting/welding.

9. PHYSICAL AND CHEMICAL PROPERTIES

General information

Appearance/Colour:

Colourless gas.

Odour: Garlic like Poor warning properties at low concentrations. Important information on environment, health and safety

Molecular weight: 26.038 g/mol

Melting point: -80,8 °C

Sublimation point: -84 °C

Critical temperature: 35,2 °C

Autoignition temperature: 325 °C

Flammability range: 2.5 %(V) - 81 %(V)

Relative density, gas: 0,9

Relative density, liquid: Not applicable.

Solubility mg/l water: 1185 mg/l

Maximum filling pressure (bar): 19 bar

10. STABILITY AND REACTIVITY

Stability and reactivity : Can form explosive mixture with air. May decompose violently at high temperature and/or pressure or in the presence of a catalyst Forms explosive acetylides with copper, silver and mercury. Do not use alloys containing more than 70% copper. 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.

14. TRANSPORT INFORMATION

ADR/RID

Class: 2

Classification Code: 4F

UN number and proper shipping name

UN 1001 Acetylene, dissolved UN 1001 Acetylene,

dissolved Labels: 2.1

Hazard number: 239 Packing

Instruction: P200

IMDG

Class : 2.1

UN number and proper shipping name

UN 1001 Acetylene, dissolved

Labels : 2.1

Packing Instruction : P200

EmS: FD,SU

IATA

Class : 2.1

UN number and proper shipping name

UN 100 1 Acetylene, dissolved

Labels : 2.1

Packing Instruction : P200



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Other transport information

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

Number in Annex I of Dir 67/548

601-015 -00-0

EC Classification

F+; R12, R5, R6

Labelling - Symbols

F+ Extremely flammable .

- Risk Phrases

R5 :- Heating may cause an explosion.

R6:- Explosive with or without contact with air.

R12:- Extremely flammable.

- Safety Phrases

S9:- Keep container in well ventilated place.

S16:- Keep away from ignition source - No smoking.

S33:- Take precautionary measures against static discharges.

S7:- Keep container tightly closed.

Further national regulations :-

Pressure Vessel Regulation

Regulations for the prevention of industrial accidents

Gefahrstoffverordnung (GefStoffV)

Technische Regeln für Gefahrstoffe (TRGS)

Water Pollution class

Not polluting to waters according to VwV wS from 17.05.99.

TA-Luft

Not classified according to TA-Luft.

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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