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MSDSACET

Material Safety Data Sheet

Acetylene

DIXONS OF WESTERHOPE LIMITED Est. 1978

1 Identification of the substance/preperation and of the company/undertaking

Product name : Acetylene

Chemical formula : C_2H_2

Use of substance : General Industrial

Company : Dixons of Westerhope Ltd
Newbiggin Lane
Westerhope
Newcastle upon Tyne
NE5 1LX

Emergency contact : 0191 271 0222

2 Composition/information on ingredients

Components	EINECS/ELINCS	CAS	Concentration	Class
Acetylene	200-816-9	74-86-2	100%	F+ R5 R6 R12

Concentration is nominal. For the exact product composition, please refer to Dixons of Westerhops Ltd. technical specifications. Refer to section 16

3 Hazards identification

Classification : F+ / R5 / R6 / R12 - refer to section 16

Emergency Overview : High concentrations may cause asphyxiation. Extremely flammable. May form explosive mixtures in the air. Immediate fire and explosion hazard exists when mixed with air at concentrations exceeding the lower flammability limit (LFL).

Inhalation : Can cause rapid suffocation.

4 First aid measures

Inhalation : May cause anaesthetic effects and in high concentrations asphyxiation. Asphyxiation may bring about unconciousness without warning and so rapidly that victim may be unable to protect themselves. Remove victim to fresh air. Call a doctor and apply artificial respiration if breathing has stopped.

Ingestion : Ingestion is not considered a potential route of exposure

5 Fire-fighting measures

Extinguishing media : All known extinguishing media can be used.

Specific hazards : Incomplete combustion may form carbon monoxide. Upon exposure to intense heat or flame, cylinder will vent rapidly or rupture violently. Move away from container and cool with water from a protected position. Do not extinguish a leaking gas flame unless absolutely necessary. If flames are accidentally extinguished, appropriate measures should be taken (total evacuation to protect persons from cylinder fragments and toxic fumes should a rupture occur).

Protective equipment : Wear self-contained breathing apparatus for fire fighting if necessary.

6 Accidental release measures

Personal precautions : Evacuate the area. Remove all sources of ignition. Never enter a confined space where the gas concentration is greater than 10% of its LFL. Ventilate the area.

Environmental precautions : Try to stop release. Do not release into the environment

Clean up methods : Ventilate the area.

7 Handling and storage

Handling : Open valve slowly. Do not allow backfeed into the container. Do not remove safety labels. Always use with specified equipment fit for purpose

Storage : Keep container in a well ventilated area. Store cylinder below 50°C

See reverse for further handling, usage and storage guidelines

8 Exposure controls/personal protection

Exposure limits : Wear eye protection to EN 166 when using gases. Wear leather safety gloves and safety shoes when handling cylinders

Personal protection : Ensure adequate ventilation

9 Physical and chemical properties

Form : Dissolved gas

Colour : Colourless gas

Odour : Poor warning properties. Garlic-like

Molecular weight : 26.04 g/mol

Vapour density : 0.899 (air - 1)

Specific volume : 0.9221 m_3/kg at 21°C

Critical Temperature : 35.6°C

Boiling point : -84.2°C

Water solubility : 1.185 g/l

Upper flammability limit : 83% (V)

Lower flammability limit : 2.4% (V)

10 Stability and reactivity

Chemical stability : Stable under normal conditions

Hazardous reactions : Unstable. Stable as shipped. Do not use at pressure above 15 psig

Conditions to avoid : Cylinders should not be exposed to sudden shock or sources of heat

Materials to avoid : Under certain conditions, acetylene can react with copper, silver and mercury to form acetylides, compounds which can act as ignition sources. Acetylene can react violently when combined with oxidizers

11 Toxicological information

No known toxicological effects from this product

12 Ecological information

No known ecological effects from this product

13 Disposal considerations

Return cylinders to the supplier (used and unused)

14 Transport Information

Proper Shipping Name : Acetylene Dissolved

UN ID no. : UN1001

Labelling ADA : 2.1

ADR/RID hazard ID no. : 239

Labelling :

Further information : Avoid transport on vehicles where the load space is not separated from the driver's compartment. Ensure vehicle driver is aware of potential hazards of the load and knows what to do in the event of an accident or an emergency.

Before transporting gas cylinders

1. Ensure that cylinders are secured
2. Ensure cylinder valves are closed
3. Ensure cylinder shroud is secure
4. Ensure there is adequate ventilation

15 Regulatory information

Labelling according to EEC directive
Number in Annex I of Dir : Not included in Annex I. 67/548

16 Other information

Ensure all national and local regulations are observed.
R-phrase(s) Substance/preparation;
R5 - Heating may cause an explosion
R6 - Explosive with or without contact with air
R12 - Extremely flammable
Components prepared by : Dixons of Westerhope Limited.
This safety data sheet has been established in accordance with the applicable European Directives and applies to all countries that have translated the Directives in their national laws.

Disclaimer of Liability:

Details given in this document are believed to be correct at the time of going to press. Whilst proper care has been taken in the preparation of this document, no liability for injury or damage resulting from its use can be accepted.

In case of emergency

0191 271 0222

Additional storage, usage & handling advice

Guidance for storing gas cylinders

- **TAKE PRECAUTION - EXTREMELY FLAMMABLE**
- Store cylinders in a well-ventilated covered area, preferably outside on a level, well-drained surface. If this is not reasonably practicable, store in an adequately ventilated building or part of a building specifically reserved for this purpose
- Full and empty cylinders should be stored separately
- Cylinder stocks should be rotated so that the oldest cylinders are used first
- Cylinders should be stored vertically and securely fastened to prevent them from falling over
- Segregate cylinder by properties of gas
  Flammable
  Oxidising
  Inert etc.
- Ensure that gas cylinder valves are kept shut on empty cylinders
- Avoid storing gas cylinders so that they stand or lie in water - Oxygen must be stored away from oil or grease
- Protect gas cylinders from external heat sources that may adversely affect their mechanical integrity
- Gas cylinders containing flammable gas should not be stored in part of a building used for other purposes
- Do not store other products in a cylinder store, in particular flammable materials such as fuel, oil, paint or corrosive liquids
- Gas cylinders must be clearly marked to show what they contain and the hazards associated with their contents
- Store cylinders where they are not vulnerable to hazards caused by impact from vehicles such as fork-lift trucks
- Do not store LPG cylinders within three metres of other gas cylinders - The use of a firewall reduces the distance to 1.5 meters

There are specific requirements for certain products. Storage of cryogenic, liquefied (e.g. Propane) and heavier than air compressed gases should be sited with due regard to the dangers of gases collecting in low-lying areas such as drains, basements and ducts.
It is advisable to label your storage area with relevant hazard labels and colour code chart.

Guidance for handling gas cylinders

- When required, wear suitable safety shoes and other personal protective equipment when handling gas cylinders
- Carry cylinders close to your body to reduce stress on your back
- Gas cylinders should not be raised or lowered on the forks of lift trucks unless precautions are taken to prevent them from falling
- It is advisable to use a trolley if moving several cylinders to reduce risk of injury
- Do not drop, roll or drag gas cylinders
- Do not attempt to lift cylinders if they are located in a position where you have to lean over or stretch to carry them, this can cause back strain
- Use the correct techniques for lifting heavy objects
- Ensure that the valve is protected by a shroud that has been designed to withstand impact if the cylinder is dropped
- Fit suitable protective caps and covers to cylinders, when necessary, before transporting. Caps and covers help prevent moisture and dirt from gathering in the valve of the cylinder, in addition to providing protection during transport

Guidance for using gas cylinders

- Use gas cylinders in a vertical position, unless specifically designed to be used otherwise
- Always double check that the gas is the right one for the intended use
- Before connecting a gas cylinder to equipment, make sure that the regulator and pipework are suitable for the type of gas and pressure being used
- When not in use, disconnect regulators and hoses from cylinders whenever practicable
- Do not use gas cylinders for anything other than the transport and storage of gas

Only use cylinders filled by a reputable gas company who fills and tests cylinders regularly in accordance to regulations. Only ever return empty gas cylinders to the supplier from which they were purchased. Never attempt to fill a Hobbyweld cylinder from another gas cylinder.

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