Safety data sheet
Acetylene, dissolved.

1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY

Product name
Acetylene, dissolved.
Chemical formula C2H2
Known uses
Not known.
Company identification
Linde AG, Linde Gas Division, Seitnerstraße 70, D-82049 Pullach
E-Mail Adress Direkt@de.linde-gas.com
Emergency phone numbers (24h): 089-7446-0

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"

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 g/mol
Melting point: -80,8 °C
Sublimation point: -84 °C
Critical temperature: 35,2 °C
Autoignition temperature: 325 °C
Flammability range: 2,4 %(V) - 88 %(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.

EWC Nr. 16 05 04*

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 1001 Acetylene, dissolved

Labels	2.1
Packing Instruction	P200

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 VwVwS 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
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. Details given in this document are believed to be correct at the time of going to press.
Further informations
Linde safety adivce

No. 2	Handling of gas cylinders at and after fire / heat exposure
No. 3	Oxygen deficiency
No. 7	Safe handling of gas cylinders and cylinder bundles
No. 10	Handling of acetylene
No. 11	Transport of gas receptacles in vehicles

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