



# Acetylene (Dissolved)

## Safety Data Sheet GCI-003

Date of Issue: 01/01/2021 Revision date: 10/03/2021

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### Section 1: Product and company Information

#### 1.1 Product Identifier

Trade Name : Acetylene (Dissolved)  
Formula : C<sub>2</sub>H<sub>2</sub>  
MSDS No : GCI-003

#### 1.2 Details of the supplier of the safety data sheet

Name : Globcorp International Co W.L.L  
Address : Shop No 52, Building 2527, Road 1535, Block  
115, Hidd, Kingdom of Bahrain  
Emergency number : +973-34026802/33701856/36487106

#### 1.3 Product Composition / Information of ingredients

Substance name : Acetylene, dissolved  
Contents : 100%  
Contains no other components or impurities  
which will influence the classification of the  
product

### Section 2: Hazard Identification

Hazards identification : Dissolved gas.  
May cause asphyxiation in high concentrations.

### Section 3: First Aid Measures

After Inhalation Remove person to fresh air and keep comfortable  
for breathing. If not breathing, give artificial  
respiration. If breathing is difficult, trained  
personnel should give oxygen. Call a doctor.  
After Skin contact The liquid may cause frostbite. For exposure to  
liquid, immediately warm frostbite area with  
warm water not to exceed 41°C. Maintain skin  
warming for at least 15 minutes or until normal  
coloring and sensation have returned to the  
affected area. In case of massive exposure,  
remove clothing while showering with warm  
water.



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After Eye contact

Immediately flush eyes thoroughly with water for at least 15 minutes. Hold the eyelids open and away from the eyeballs to ensure that all surfaces are flushed thoroughly. Contact an ophthalmologist immediately. Get immediate medical attention.

After Ingestion

Ingestion is not considered a potential route of exposure

### Section 4: Firefighting Measures

Flammable class  
Specific hazards

Extremely flammable.  
Exposure to fire may cause containers to rupture/explode.

Suitable extinguishing media  
Specific methods

All known extinguishers can be used.  
If possible, stop flow of product.  
Move away from the container and cool with water from a protected position.  
Do not extinguish a leaking gas flame unless absolutely necessary. Spontaneous/explosive re-ignition may occur. Extinguish any other fires.  
In confined space use self-contained breathing apparatus.

Special protective equipment

### Section 5: Handling and Storage

Storage

Segregate from oxidant gases and other oxidants in store. Keep container below 50°C in a well ventilated place.

Handling

Ensure equipment is adequately earthed.  
Avoid contact with pure copper, mercury, silver and brass with greater than 70% copper.  
Suck back of water into the container must be prevented.  
Purge air from system before introducing gas.  
Do not allow back feed into the container.  
Use only proper specified equipment which is suitable for this product.  
Keep away from ignition sources.  
Refer to supplier's container handling instructions. Contact your gas supplier if in doubt.



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### Section 6: Exposure controls / Personal protection

Personal protection

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

### Section 7: Physical and Chemical properties

Physical state at 20°C	: Dissolved gas.
Color	: Colorless.
Odor	: Garlic like odor. Poor warning properties at low concentrations.
Molecular formula	: C <sub>2</sub> H <sub>2</sub>
Molecular weight	: 26
Melting point [°C]	: -80.8
Boiling point [°C]	: -84
Critical temperature [°C]	: 35
Vapor pressure, 20°C	: 44 BAR
Relative density, gas (air=1)	: 0.9
Relative density, liquid (water=1)	: Not applicable
Solubility in water [mg/l]	: 1185
Flammability range [vol% m air]	: 2.4 to 83
Auto ignition temperature [°C]	: 325

### Section 8: 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.



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Do not use alloys containing more than 70% copper.  
Dissolved in a solvent supported in a porous mass.  
May react violently with oxidants.

### Section 9: Toxicological Information

Toxicity Information

: No known toxicological effects from this product.

### Section 10: 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.

### Section 11: Transport information

Transport document description

: UN1001 Acetylene, dissolved, 2.1

UN-NO (DOT)

: UN1001

Proper shipping name

: Acetylene, dissolved

Hazard labels (DOT)

: 2.1 – Flammable gas



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 emergency.

Before Transporting product containers

Ensure that containers are firmly secured. Ensure cylinder valve is closed and not leaking. Ensure valve outlet cap nut or plug is correctly fitted. Ensure valve protection device is correctly fitted. Ensure there is adequate ventilation. Compliance with applicable regulation.



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### Section 12: Other Information

Ensure operators understand the flammability hazard.

Keep container in a well ventilated place.

Do not breathe the gas.

Ensure all national/local regulations are observed.

The hazard of asphyxiation is often overlooked and must be stressed during operator training.

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.