



Material Safety Data Sheet

FM.PRO-35

1. Chemical Product and Company Identification

PRODUCT NAME : **Acetylene**
TRADE NAME/SYNONYMS : None

COMPANY IDENTIFICATION :
PT. BSG GASES
Jl. Cempaka, Desa Jatimulya
Tambun, Bekasi - Indonesia
EMERGENCY PHONE : **+62 21 8812507 – 08**

2. Composition, Information on Ingredients

COMPONENT : **Acetylene**
FORMULA : **C₂H₂**
PERCENTAGE : **99+%**

3. Hazards Identification

EMERGENCY OVERVIEW : Flammable gas under pressure. Can form explosive mixtures with air. Fusible plugs in top, bottom, or valve melt at 208-220 F (98-104 C). Do not discharge at pressures above 15 psig.

Acetylene cylinders are filled with a porous material containing acetone into which the **acetylene** is dissolved.

POTENTIAL HEALTH EFFECTS:

ROUTES OF ENTRY: **Inhalation**

ACUTE EFFECTS: Material acts as a simple asphyxiant by displacing air necessary for life. Symptoms include rapid respiration, muscular incoordination, fatigue, dizziness, nausea, vomiting, unconsciousness, and death. May act as an anesthetic. Symptoms of exposure may include mild gastric symptoms, mental confusion, emotional instability and myocardial sensitization.

CHRONIC EFFECTS: Bronchitis, stomach ulcers.

4. First Aid Measures

INHALATION: **Immediately remove victim to fresh air. If breathing has stopped, give artificial respiration. If breathing is difficult, give oxygen.**

EYE CONTACT: **Immediately flush with copious amounts of water for at least 15 minutes.**

SKIN CONTACT: None

INGESTION: **None**

5. Fire Fighting Measures

FLASH POINT: **-17.78 deg.C**
AUTOIGNITION TEMPERATURE: **335 deg.C**
FLAMMABLE LIMITS: **Vol.%**

LOWER: **2.5%**
UPPER: **80%**

EXTINGUISHING MEDIA: **Carbon dioxide, water spray, or dry chemical.**

SPECIAL FIRE FIGHTING INSTRUCTION AND EQUIPMENT: **Wear self-contained breathing apparatus and full protective clothing. Stay upwind. If possible, stop the product flow. Keep fire exposed cylinders cool with water spray. Extinguish only if flow can be stopped.**

HAZARDOUS COMBUSTION PRODUCTS: **Toxic carbon monoxide may be given off during combustion.**

UNUSUAL FIRE AND EXPLOSION HAZARDS: **Moderate hazard when exposed to heat or flame. Cylinder rupture may occur under fire conditions. At high pressure, may decompose explosively. Emits toxic fumes under fire conditions.**

6. Accidental Release Measures

CLEAN UP PROCEDURES: **Evacuate and ventilate area. Remove leaking cylinder to exhaust hood or safe outdoor area. Shut off source if possible and remove source of heat. Use non-sparking tools.**

SPECIALIZED EQUIPMENT: **None**

7. Handling And Storage

PRECAUTIONS TO BE TAKEN IN HANDLING: **Discharge at less than 15 psig. Use only **acetylene** regulators. Secure cylinder when using to protect from falling. Use suitable hand truck to move cylinders.**

PRECAUTIONS TO BE TAKEN IN STORAGE: **Store in well ventilated areas. Keep valve protection cap on cylinders when not in use. Store away from heat, flame, and sparks.**

8. Exposure Controls, Personal Protection

ENGINEERING CONTROLS: **Provide adequate general and local exhaust ventilation to maintain concentrations below exposure limits, flammable limits, and to avoid asphyxiation.**

EYE / FACE PROTECTION: **Safety glasses.**

SKIN PROTECTION: **None**

RESPIRATORY PROTECTION: **In case of leakage, Use a self-contained breathing apparatus**

OTHER PROTECTIVE EQUIPMENT: **Safety shoes when handling cylinders.**

9. Physical And Chemical Properties

APPEARANCE: **Colorless**

ODOR: **Ethereal odor**

PHYSICAL PRESSURE: **Gas**

VAPOR PRESSURE: **@20 deg.C: 43.21 atm**

VAPOR DENSITY (AIR=1): **0.91**

BOILING POINT (C): **-84**

SOLUBILITY IN WATER: **@25 deg.C: 0.94%**

SPECIFIC GRAVITY (H₂O=1): **Gas**

EVAPORATION RATE: **Gas**

ODOR THRESHOLD: **N/A**

10. Stability and Reactivity

STABILITY: **Stable under normal storage conditions. Compound is stable in closed containers at room temperature**

CONDITIONS TO AVOID: **Storage in poorly ventilated areas. Storage near a heat source.**

MATERIALS TO AVOID: **Copper, copper salts, brass, mercury salts, potassium, silver, silver salts, halogens, RbH, CsH, HNO₃, NaH, and oxidizers.**

HAZARDOUS POLYMERIZATION: **Will not occur.**

HAZARDOUS DECOMPOSITION: **Toxic carbon monoxide.**

11. Toxicological & Ecological Information

Not available

12. Disposal Considerations

WASTE DISPOSAL METHOD: **Return cylinders to supplier with any valve outlet plugs or caps secured and valve protection cap in place.**

13. Transport Information

PROPER SHIPPING NAME: **Acetylene, Dissolve**

HAZARD CLASS: **2.1 (flammable gas)**

IDENTIFICATION NUMBER: **UN1001**

LABELING: **FLAMMABLE GAS**



SPECIAL PRECAUTIONS: **Cylinders should be transported in a secure upright position in a well ventilated truck.**

14. Other Information

OTHER PRECAUTIONS: **Protect containers from physical damage. Do not deface cylinders or labels. Cylinders should be refilled by PT. BSG GASES qualified producers of compressed gas.**