Material Name: Acetylene Gas

Section 1 - PRODUCT AND COMPANY IDENTIFICATION

Material Name
Acetylene Gas

Synonyms
Ethyne, Ethine; Welding gas; Narcylen; Acetylen; Vinylene

Chemical Family
Hydrocarbons, aliphatic

Product Description
Classification determined in accordance with Compressed Gas Association standards.

Product Use
Industrial and Specialty Gas Applications.

Restrictions on Use
None known.

Details of the supplier of the safety data sheet
WESTERN INTERNATIONAL GAS & CYL. INC.
7173 Hwy 159E
P.O. Box 668
Bellville, TX 77418
Phone: 1-979-413-2100
Emergency Phone #: 1-800-424-9300 (CHEMTREC)
Outside the US: 703-527-3887 (Call collect)

Section 2 - HAZARDS IDENTIFICATION

Classification in accordance with paragraph (d) of 29 CFR 1910.1200.
Flammable Gases - Category 1
Gases Under Pressure - Dissolved gas

GHS Label Elements
Symbol(s)

Signal Word
Danger

Hazard Statement(s)
Extremely flammable gas.
Contains gas under pressure; may explode if heated.

Precautionary Statement(s)
Prevention
Keep away from heat/sparks/open flame/hot surfaces - No smoking.

Response
Leaking gas fire: Do not extinguish, unless leak can be stopped safely.
Eliminate all ignition sources if safe to do so.

Storage
Protect from sunlight. Store in a well-ventilated place.
Safety Data Sheet

Material Name: Acetylene Gas

Disposal
Dispose of contents/container in accordance with local/regional/national/international regulations.

Other Hazards
Rapid release of compressed gas may cause frostbite.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>CAS</th>
<th>Component Name</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>74-86-2</td>
<td>Acetylene</td>
<td>100</td>
</tr>
</tbody>
</table>

Section 4 - FIRST AID MEASURES

Inhalation
If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. If breathing is difficult, oxygen should be administered by qualified personnel. Get immediate medical attention.

Skin
If frostbite or freezing occur, immediately flush with plenty of lukewarm water (105-115°F; 41-46°C). DO NOT USE HOT WATER. If warm water is not available, gently wrap affected parts in blankets. Get immediate medical attention.

Eyes
Flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Then get immediate medical attention.

Ingestion
If swallowed, get medical attention.

Most Important Symptoms/Effects
Acute
frostbite
Delayed
no information on significant adverse effects.

Note to Physicians
For inhalation, consider oxygen.

Section 5 - FIRE FIGHTING MEASURES

Extinguishing Media
Suitable Extinguishing Media
carbon dioxide, regular dry chemical, Large fires: water spray or fog

Unsuitable Extinguishing Media
None known.

Special Hazards Arising from the Chemical
Severe explosion hazard. Vapor/air mixtures are explosive. Electrostatic discharges may be generated by flow or agitation resulting in ignition or explosion.

Hazardous Combustion Products
Oxides of carbon

Fire Fighting Measures
Move container from fire area if it can be done without risk. Cool containers with water spray until well after the fire is out. Do not direct water at source of leak or safety devices; icing may occur. For fires in cargo or storage area: Cool containers with water from unmanned hose holder or monitor nozzles until well after fire is out. If this is impossible then take the following precautions: Keep unnecessary people away, isolate hazard area and deny entry. Let the fire burn. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire. For tank, rail car or tank truck: Stop leak if possible without personal risk. Let burn unless leak can
be stopped immediately. Evacuation radius: 1600 meters (1 mile). For smaller tanks or cylinders, extinguish and isolate from other flammables. Do not attempt to extinguish fire unless flow of material can be stopped first. Flood with fine water spray. Apply water from a protected location or from a safe distance. Consider downwind evacuation if material is leaking. Stay upwind and keep out of low areas. Avoid inhalation of material or combustion by-products.

**Special Protective Equipment and Precautions for Firefighters**

Wear full protective fire fighting gear including self contained breathing apparatus (SCBA) for protection against possible exposure.

### Section 6 - ACCIDENTAL RELEASE MEASURES

#### Personal Precautions, Protective Equipment and Emergency Procedures

Wear personal protective clothing and equipment, see Section 8.

#### Methods and Materials for Containment and Cleaning Up

Keep unnecessary people away, isolate hazard area and deny entry. Remove sources of ignition. Stop leak if possible without personal risk. All equipment used when handling the product must be grounded. Do not touch or walk through spilled material. Use water spray to reduce vapors or divert vapor cloud drift. Do not direct water at spill or source of leak. Ventilate closed spaces before entering.

#### Environmental Precautions

Avoid release to the environment.

### Section 7 - HANDLING AND STORAGE

#### Precautions for Safe Handling

Keep away from heat, sparks, open flame, and hot surfaces - No smoking. Avoid breathing dust/fume/gas/mist/vapors/spray. Use only outdoors or in a well-ventilated area. Wash hands thoroughly after handling. Dissipate static electricity during transfer by earthing (grounding and bonding) containers and equipment.

#### Conditions for Safe Storage, Including any Incompatibilities


#### Incompatible Materials

metals, halogens, oxidizing materials, metal carbide, reducing agents, halo carbons

### Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

#### Component Exposure Limits

<table>
<thead>
<tr>
<th>Component</th>
<th>Exposure Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetylene</td>
<td>74-86-2</td>
</tr>
<tr>
<td>ACGIH:</td>
<td>(See Appendix F: Minimal Oxygen Content, explosion hazard)</td>
</tr>
<tr>
<td>NIOSH:</td>
<td>2500 ppm Ceiling ; 2662 mg/m3 Ceiling</td>
</tr>
</tbody>
</table>

**ACGIH - Threshold Limit Values - Biological Exposure Indices (BEI)**

There are no biological limit values for any of this product's components.

#### Engineering Controls

Ventilation equipment should be explosion-resistant if explosive concentrations of material are present. Provide local exhaust ventilation system. Ensure compliance with applicable exposure limits.
Individual Protection Measures, such as Personal Protective Equipment

Eye/face protection
For the gas: Eye protection not required, but recommended. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

Skin Protection
For the gas: Protective clothing is not required.

Respiratory Protection
Under conditions of frequent use or heavy exposure, respiratory protection may be needed. Respiratory protection is ranked in order from minimum to maximum. Consider warning properties before use. Any supplied-air respirator with a full facepiece that is operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary self-contained breathing apparatus operated in pressure-demand or other positive-pressure mode. Any self-contained breathing apparatus that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode.

Glove Recommendations
For the gas: Protective gloves are not required, but recommended.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>colorless gas</td>
</tr>
<tr>
<td>Odor</td>
<td>sweet odor, garlic odor</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>Not available</td>
</tr>
<tr>
<td>Melting Point</td>
<td>Not available</td>
</tr>
<tr>
<td>Boiling Point Range</td>
<td>Not available</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>Not available</td>
</tr>
<tr>
<td>Autoignition Temperature</td>
<td>305 °C (581 °F)</td>
</tr>
<tr>
<td>Lower Explosive Limit</td>
<td>2.5 %</td>
</tr>
<tr>
<td>Upper Explosive Limit</td>
<td>100 %</td>
</tr>
<tr>
<td>Vapor Density (air=1)</td>
<td>0.9</td>
</tr>
<tr>
<td>Water Solubility</td>
<td>0.94 % (@ 25 °C)</td>
</tr>
<tr>
<td>Viscosity</td>
<td>0.01 cp</td>
</tr>
<tr>
<td>Solubility (Other)</td>
<td>Not available</td>
</tr>
<tr>
<td>Density</td>
<td>1.1747 g/L at 0 °C</td>
</tr>
<tr>
<td>Physical State</td>
<td>gas</td>
</tr>
<tr>
<td>Color</td>
<td>colorless</td>
</tr>
<tr>
<td>pH</td>
<td>Not available</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>Not available</td>
</tr>
<tr>
<td>Freezing point</td>
<td>Not available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Flammable gas</td>
</tr>
<tr>
<td>Flash Point</td>
<td>(Flammable gas)</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not available</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>760 mmHg @ -84 °C</td>
</tr>
<tr>
<td>Specific Gravity (water=1)</td>
<td>Not available</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>Not available</td>
</tr>
<tr>
<td>Henry's Law Constant</td>
<td>0.0217 atm-m3/mole at 25 °C</td>
</tr>
<tr>
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<td>0.0217 atm-m3/mole at 25 °C</td>
</tr>
<tr>
<td>Henry's Law Constant</td>
<td>0.0217 atm-m3/mole at 25 °C</td>
</tr>
</tbody>
</table>
### Section 10 - STABILITY AND REACTIVITY

**Reactivity**  
May decompose on contact with heat.

**Chemical Stability**  
May decompose violently on heating. May explode when heated. In its gaseous state, may decompose explosively at elevated pressure.

**Possibility of Hazardous Reactions**  
Polymerizes with evolution of heat. Avoid contact with curing agents, accelerators, and/or initiators.

**Conditions to Avoid**  
Avoid heat, flames, sparks and other sources of ignition. Containers may rupture or explode if exposed to heat.

**Incompatible Materials**  
metals, halogens, oxidizing materials, metal carbide, reducing agents, halo carbons

**Hazardous decomposition products**  
Oxides of carbon

### Section 11 - TOXICOLOGICAL INFORMATION

**Information on Likely Routes of Exposure**

**Inhalation**  
nausea, vomiting, chest pain, wheezing, headache, drowsiness, dizziness, loss of coordination, bluish skin color, suffocation, lung congestion, coma

**Skin Contact**  
frostbite, rash

**Eye Contact**  
frostbite, irritation

**Ingestion**  
 inggestion of a gas is unlikely

**Acute and Chronic Toxicity**

**Component Analysis - LD50/LC50**  
The components of this material have been reviewed in various sources and no selected endpoints have been identified.

**Product Toxicity Data**

**Acute Toxicity Estimate**  
No data available.

**Immediate Effects**  
frostbite

**Delayed Effects**  
no information on significant adverse effects.

**Irritation/Corrosivity Data**  
No animal testing data available for skin or eyes.

**Respiratory Sensitization**
Material Name: Acetylene Gas

Dermal Sensitization
No data available.

Component Carcinogenicity
None of this product’s components are listed by ACGIH, IARC, NTP, DFG or OSHA.

Germ Cell Mutagenicity
No data available.

Tumorigenic Data
No data available.

Reproductive Toxicity
No data available.

Specific Target Organ Toxicity - Single Exposure
No target organs identified.

Specific Target Organ Toxicity - Repeated Exposure
No target organs identified.

Aspiration hazard
Not applicable.

Medical Conditions Aggravated by Exposure
None known.

Additional Data
Stimulants such as epinephrine may induce ventricular fibrillation.

Section 12 - ECOLOGICAL INFORMATION

Component Analysis - Aquatic Toxicity
No LOGL ecotoxicity data are available for this product’s components.

Persistence and Degradability
No data available.

Bioaccumulative Potential
No data available.

Mobility
No data available.

Section 13 - DISPOSAL CONSIDERATIONS

Disposal Methods
Dispose in accordance with all applicable regulations.

Component Waste Numbers
The U.S. EPA has not published waste numbers for this product’s components.

Section 14 - TRANSPORT INFORMATION

US DOT Information:
Shipping Name: ACETYLENE, DISSOLVED
Hazard Class: 2.1
UN/NA #: UN1001
Required Label(s): 2.1

IMDG Information:
Shipping Name: ACETYLENE, DISSOLVED
Hazard Class: 2.1
UN#: UN1001
Required Label(s): 2.1
Section 15 - REGULATORY INFORMATION

U.S. Federal Regulations
None of this product’s components are listed under SARA Sections 302/304 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), or require an OSHA process safety plan.

SARA Section 311/312 (40 CFR 370 Subparts B and C) reporting categories
Flammable; Gas Under Pressure

U.S. State Regulations
The following components appear on one or more of the following state hazardous substances lists:

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS</th>
<th>CA</th>
<th>MA</th>
<th>MN</th>
<th>NJ</th>
<th>PA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetylene</td>
<td>74-86-2</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Not listed under California Proposition 65

Canada Regulations

Canadian WHMIS Ingredient Disclosure List (IDL)
The components of this product are either not listed on the IDL or are present below the threshold limit listed on the IDL.

Component Analysis - Inventory
Acetylene (74-86-2)

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
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<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>DS L</td>
<td>EIN</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Section 16 - OTHER INFORMATION

NFPA Ratings
Health: 0 Fire: 4 Reactivity: 2
Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

Summary of Changes
Updated: 10/26/2017

Key / Legend
ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CA/MA/MN/NJ/PA* - California/Massachusetts/Minnnesota/New Jersey/Pennsylvania*; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CFR - Code of Federal Regulations (US); CLP - Classification, Labelling, and Packaging; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSD - Dangerous Substance Directive; DSL - Domestic Substances List; EC - European Commission; EEC - European Economic Community; EIN - European Inventory of (Existing Commercial Chemical Substances); EINECS - European Inventory of Existing Commercial Chemical Substances; ENCS - Japan Existing and New Chemical Substance Inventory; EPA -
Safety Data Sheet

Material Name: Acetylene Gas

Environmental Protection Agency; EU - European Union; F - Fahrenheit; F - Background (for Venezuela Biological Exposure Indices); IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; ISHL - Japan Industrial Safety and Health Law; IUCLID - International Uniform Chemical Information Database; JP - Japan; Kow - Octanol/water partition coefficient; KR KECI Annex 1 - Korea Existing Chemicals Inventory (KECI) / Korea Existing Chemicals List (KECL); KR KECI Annex 2 - Korea Existing Chemicals Inventory (KECI) / Korea Existing Chemicals List (KECL) , KR - Korea; LD50/LC50 - Lethal Dose/ Lethal Concentration; LEL - Lower Explosive Limit; LLV - Level Limit Value; LOLI - List Of Lists™ - ChemADVISOR’s Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; MX - Mexico; Ne- Non-specific; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; Nq - Non-quantitative; NSL – Non-Domestic Substance List (Canada); NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PEL - Permissible Exposure Limit; PH - Philippines; RCRA - Resource Conservation and Recovery Act; REACH-Registration, Evaluation, Authorisation, and restriction of Chemicals; RID - European Rail Transport; SARA - Superfund Amendments and Reauthorization Act; Sc - Semi-quantitative; STEL - Short-term Exposure Limit; TCCA – Korea Toxic Chemicals Control Act; TDG - Transportation of Dangerous Goods; TLV - Threshold Limit Value; TSCA - Toxic Substances Control Act; TW – Taiwan; TWA - Time Weighted Average; UEL - Upper Explosive Limit; UN/NA - United Nations /North American; US - United States; VLE - Exposure Limit Value (Mexico); VN (Draft) - Vietnam (Draft); WHMIS - Workplace Hazardous Materials Information System (Canada).

Other Information

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