**Section 1 - PRODUCT AND COMPANY IDENTIFICATION**

**Material Name:** METHYL ACETYLENE

**Manufacturer Information**
ADVANCED GAS TECHNOLOGIES
1401 Stauffer Road
Palm, PA 18070-0035

Phone: 1-800-416-2505

Emergency # 1-800-424-9300 (CHEMTREC)

Mfg Contact: Outside the US: 703-572-3887 (Collect Calls Accepted)

**Chemical Family**
hydrocarbons, aliphatic

**Synonyms**
Mtg msds 216; Propyne; Allylene; Propine; 1-Propyne; C3H4; RTECS: UK4250000

**Section 2 - HAZARDS IDENTIFICATION**

**EMERGENCY OVERVIEW**
- **Color:** colorless
- **Physical Form:** liquefied gas
- **Odor:** sweet odor
- **Health Hazards:** central nervous system depression
- **Physical Hazards:** Flammable gas. May cause flash fire. May decompose violently at room temperature.

**POTENTIAL HEALTH EFFECTS**

**Inhalation**
- **Short Term:** irritation, difficulty breathing, headache, drowsiness, dizziness, loss of coordination, dilated pupils, unconsciousness
- **Long Term:** convulsions

**Skin**
- **Short Term:** frostbite
- **Long Term:** no information is available

**Eye**
- **Short Term:** frostbite
- **Long Term:** no information is available

**Ingestion**
- **Short Term:** ingestion of a gas is unlikely
- **Long Term:** ingestion of a gas is unlikely

**Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS**

<table>
<thead>
<tr>
<th>CAS</th>
<th>Component</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>74-99-7</td>
<td>Methyl 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**
Contact with liquid: Immediately flush eyes with plenty of water for at least 15 minutes. Then get immediate medical attention.

**Ingestion**
If a large amount is swallowed, get medical attention.

**Note to Physicians**
For inhalation, consider oxygen.

** Section 5 - FIRE FIGHTING MEASURES **

See Section 9 for Flammability Properties

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

**Flammable Properties**
Containers may rupture or explode if exposed to heat. Flammable.

**Extinguishing Media**
carbon dioxide regular dry chemical
Large fires: Flood with fine water spray.

**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. Stay away from the ends of tanks. 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. For smaller tanks or cylinders, extinguish and isolate from other flammables. Evacuation radius: 800 meters (1/2 mile). Do not attempt to extinguish fire unless flow of material can be stopped first. Flood with fine water spray. Cool containers with water spray until well after the fire is out. Apply water from a protected location or from a safe distance. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas. Evacuate if fire gets out of control or containers are directly exposed to fire. Evacuation radius: 500 meters (1/3 mile). Consider downwind evacuation if material is leaking.

**Thermal Decomposition Products**
Combustion: oxides of carbon
** Section 6 - ACCIDENTAL RELEASE MEASURES **

Occupational spill/release

** Section 7 - HANDLING AND STORAGE **

Storage Procedures

** Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION **

Component Analysis
Methyl acetylene (74-99-7)
ACGIH: 1000 ppm TWA
OSHA (final): 1000 ppm TWA; 1650 mg/m3 TWA
OSHA (vacated): 1000 ppm TWA; 1650 mg/m3 TWA
NIOSH: 1000 ppm TWA; 1650 mg/m3 TWA

IDLH
1700 ppm

Ventilation
Ventilation equipment should be explosion-resistant if explosive concentrations of material are present. Provide local exhaust ventilation system. Ensure compliance with applicable exposure limits.

PERSONAL PROTECTIVE EQUIPMENT

Eyes/Face
For the gas: Eye protection not required, but recommended. For the liquid: Wear splash resistant safety goggles. Contact lenses should not be worn. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

Protective Clothing
For the gas: Protective clothing is not required. For the liquid: Wear appropriate protective, cold insulating clothing.

Glove Recommendations
Wear insulated gloves.

Respiratory Protection
The following respirators and maximum use concentrations are drawn from NIOSH and/or OSHA.
1700 ppm
Any supplied-air respirator.
Any self-contained breathing apparatus with a full facepiece.
Emergency or planned entry into unknown concentrations or IDLH conditions - Any self-contained breathing apparatus that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode.
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.
Escape -
Any air-purifying full-facepiece respirator (gas mask) with a chin-style, front-mounted or back-mounted organic vapor canister.
Any appropriate escape-type, self-contained breathing apparatus.

** * Section 9 - PHYSICAL AND CHEMICAL PROPERTIES ***

<table>
<thead>
<tr>
<th>Physical State: Gas</th>
<th>Appearance: Not available</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color: colorless</td>
<td>Physical Form: liquefied gas</td>
</tr>
<tr>
<td>Odor: sweet odor</td>
<td>Odor Threshold: Not available</td>
</tr>
<tr>
<td>Melting Point: -102.7 °C</td>
<td>Boiling Point: -23.2 °C @ 760 mmHg</td>
</tr>
<tr>
<td>Flash Point: flammable</td>
<td>LEL: 1.7 % by volume</td>
</tr>
<tr>
<td>UEL: 11.7 % by volume</td>
<td>Vapor Pressure: 3876 mmHg @ 20 °C</td>
</tr>
<tr>
<td>Henry’s Law Constant: 0.011 (estimated)</td>
<td>Vapor Density (air = 1): 1.4</td>
</tr>
<tr>
<td>Specific Gravity (water = 1): 0.7062 @ -50 °C</td>
<td>Water Solubility: 3.640 mg/mL @ 25 °C (slightly soluble)</td>
</tr>
<tr>
<td>Molecular Weight: 40.07</td>
<td>Viscosity: 0.26 mPa.s @ -40.15 °C (liquid)</td>
</tr>
</tbody>
</table>

Molecular Formula: C3-H4

Solvent Solubility
Soluble: alcohol, benzene, chloroform

** * Section 10 - STABILITY AND REACTIVITY ***

Chemical Stability
May decompose violently at room temperature.

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

Materials to Avoid
oxidizing materials, metals, halogens, copper, copper alloys, chlorine.

Combustion: oxides of carbon

Possibility of Hazardous Reactions
Will not polymerize.

** * Section 11 - TOXICOLOGICAL INFORMATION ***

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

Acute Toxicity Level
Methyl acetylene (74-99-7)
Slightly Toxic: inhalation.

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

Target Organs
Methyl acetylene (74-99-7)
central nervous system.
**Section 12 - ECOLOGICAL INFORMATION**

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

**Section 13 - DISPOSAL CONSIDERATIONS**

Disposal Methods
Dispose in accordance with all applicable regulations. Subject to disposal regulations: U.S. EPA 40 CFR 262. Hazardous Waste Number(s): D001. D003.

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: Compressed gas, flammable, n.o.s. (Contains: Methyl acetylene)
UN/NA #: UN1954  Hazard Class: 2.1
Required Label(s): 2.1

TDG Information
Shipping Name: Compressed gas, flammable, n.o.s. (Contains: Methyl acetylene)
UN #: UN1954  Hazard Class: 2.1
Required Label(s): 2.1

**Section 15 - REGULATORY INFORMATION**

U.S. Federal Regulations
None of this products components are listed under SARA Sections 302/304 (40 CFR 355 Appendix A), SARA Section 311/312 (40 CFR 370.21), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), or require an OSHA process safety plan.

SARA 311/312
Acute Health: Yes  Chronic Health: No  Fire: Yes  Pressure: Yes  Reactive: Yes

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>
<th>RI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methyl acetylene</td>
<td>74-99-7</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Not regulated under California Proposition 65

Canada WHMIS
The following components are identified under the Canadian Hazardous Products Act Ingredient Disclosure List:
Methyl acetylene (74-99-7)
1 %

**Component Analysis - Inventory**

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS</th>
<th>US</th>
<th>CA</th>
<th>EU</th>
<th>AU</th>
<th>PH</th>
<th>JP</th>
<th>KR</th>
<th>CN</th>
<th>NZ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methyl acetylene</td>
<td>74-99-7</td>
<td>Yes</td>
<td>DSL</td>
<td>EIN</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td></td>
</tr>
</tbody>
</table>
### Safety Data Sheet

**Material Name:** METHYL ACETYLENE  
**SDS ID:** 00233337

---

**Section 16 - OTHER INFORMATION**

<table>
<thead>
<tr>
<th>Key / Legend</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSL - Domestic Substances List; EEC - European Economic Community; EINECS - European Inventory of Existing Commercial Chemical Substances; EPA - Environmental Protection Agency; EU - European Union; F - Farenheit; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IMDG - International Maritime Dangerous Goods; JP - Japan; Kow - Octanol/water partition coefficient; KR - Korea; LEL - Lower Explosive Limit; LOLI - List Of Lists™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PH - Philippines; RCRA - Resource Conservation and Recovery Act; RID - European Rail Transport; RTECS - Registry of Toxic Effects of Chemical Substances®; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; UEL - Upper Explosive Limit; US - United States</td>
</tr>
</tbody>
</table>

---

End of Sheet 00233337