1. CHEMICAL PRODUCT and COMPANY INFORMATION (rev. Aug-98)

Amerada Hess Corporation
1 Hess Plaza
Woodbridge, NJ 07095-0961

EMERGENCY TELEPHONE NUMBER (24 hrs): CHEMTREC (800) 424-9300
COMPANY CONTACT (business hours): Corporate Safety (732) 750-6000
SYNONYMS: Compressed Natural Gas (CNG); Dry Natural Gas; Methane; Pipeline Spec Gas; Processed Gas; Residue Gas; Sweet Natural Gas; Treated Gas

See Section 16 for abbreviations and acronyms.

2. COMPOSITION and INFORMATION ON INGREDIENTS (rev. Aug-98)

<table>
<thead>
<tr>
<th>INGREDIENT NAME (CAS Number)</th>
<th>EXPOSURE LIMITS</th>
<th>CONCENTRATION PERCENT BY VOLUME</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Gas, dry (68410-63-9) None established by OSHA or ACGIH</td>
<td>100</td>
<td>Simple asphyxiant; exposure limited by oxygen and flammability</td>
</tr>
<tr>
<td>Methane (115-07-1) None established by OSHA or ACGIH</td>
<td>&lt; 90</td>
<td>Simple asphyxiant</td>
</tr>
<tr>
<td>Ethane (74-84-0) None established by OSHA or ACGIH</td>
<td>&lt; balance &gt;</td>
<td>Simple asphyxiant</td>
</tr>
</tbody>
</table>

A complex mixture of light gases separated from raw natural gas consisting of aliphatic hydrocarbons having carbon numbers in the range of C1 through C4, predominantly methane (C1) and ethane (C2); may contain carbon dioxide (CO2). Odorized with trace amounts of odorant (see Section 9). This is for natural gas that has been processed and is in commerce.

3. HAZARDS IDENTIFICATION (rev. Aug-98; Tox-98)

EMERGENCY OVERVIEW
DANGER!
EXTREMELY FLAMMABLE GAS - MAY CAUSE FLASH FIRE OR EXPLOSION!

High concentrations may exclude oxygen and cause dizziness and suffocation. Contact with pressurized vapor may cause frostbite or freeze burn.

EYES
Not irritating. However, contact with pressurized vapor may cause frostbite, freeze burns, and permanent eye damage.

SKIN
Not irritating. Direct contact to skin or mucous membranes with pressurized vapor may cause freeze burns and frostbite. Signs of frostbite include a change in the color of the skin to gray or white, possibly followed by blistering. Skin may become inflamed and painful.

INGESTION
Risk of ingestion is extremely unlikely.

INHALATION
This product is considered to be non-toxic by inhalation. Inhalation of high concentrations may cause central nervous system depression such as dizziness, drowsiness, headache, and similar narcotic symptoms, but no long-term effects. Numbness, a "chilly" feeling, and vomiting have been reported from accidental exposures to high concentrations.
This product is a simple asphyxiant. In high concentrations it will displace oxygen from the breathing atmosphere, particularly in confined spaces. Signs of asphyxiation will be noticed when oxygen is reduced to below 16%, and may occur in several stages. Symptoms may include rapid breathing and pulse rate, headache, dizziness, visual disturbances, mental confusion, incoordination, mood changes, muscular weakness, tremors, cyanosis, narcosis and numbness of the extremities. Unconsciousness leading to central nervous system injury and possibly death will occur when the atmospheric oxygen concentration is reduced to about 6% to 8% or less.

**WARNING:** The burning of any hydrocarbon as a fuel in an area without adequate ventilation may result in hazardous levels of combustion products, including carbon monoxide, and inadequate oxygen levels, which may cause unconsciousness, suffocation, and death.

**CHRONIC and CARCINOGENICITY**
None expected - see Section 11.

**MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE**
Individuals with pre-existing conditions of the heart, lungs, and blood may have increased susceptibility to symptoms of asphyxia.

4. **FIRST AID MEASURES** (rev. Aug-98; Tox-98)

**EYES**
In case of freeze burn cover eyes to protect from light. Seek immediate medical attention.

**SKIN**
In case of frostbite or freeze burns seek immediate medical attention.

**INGESTION**
Though risk of ingestion is extremely unlikely, in case of frostbite or freeze burns due to oral exposure seek immediate medical attention.

**INHALATION**
Remove person to fresh air. If person is not breathing, provide artificial respiration. If necessary, provide additional oxygen once breathing is restored if trained to do so. Seek medical attention immediately.

5. **FIRE FIGHTING MEASURES** (rev. Aug-98)

**FLAMMABLE PROPERTIES:** (NFPA Natural Gas)

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLASH POINT</td>
<td>Flammable gas</td>
</tr>
<tr>
<td>AUTOIGNITION POINT</td>
<td>900 - 1170 °F (482 - 632 °C)</td>
</tr>
<tr>
<td>OSHA/NFPA FLAMMABILITY CLASS</td>
<td>FLAMMABLE GAS</td>
</tr>
<tr>
<td>LOWER EXPLOSIVE LIMIT (%)</td>
<td>3.8 - 6.5</td>
</tr>
<tr>
<td>UPPER EXPLOSIVE LIMIT (%)</td>
<td>13 - 17</td>
</tr>
</tbody>
</table>

**FIRE AND EXPLOSION HAZARDS**
Dangerous fire and explosion hazard when exposed to heat, sparks or flame. Natural gas is lighter than air and may travel long distances to a point of ignition and flash back. Container may explode in heat or fire. Liquefied Natural Gas (LNG) releases flammable gas at well below ambient temperatures and readily forms a flammable mixture with air.

**EXTINGUISHING MEDIA**
Dry chemical, carbon dioxide, Halon or water. However, fire should not be extinguished unless flow of gas can be immediately stopped.

**FIRE FIGHTING INSTRUCTIONS**
Gas fires should not be extinguished unless flow of gas can be immediately stopped. Shut off gas source and allow gas to burn out. If spill or leak has not ignited, determine if water spray may assist in dispersing gas or vapor to protect personnel attempting to stop leak.
Use water to cool equipment, surfaces and containers exposed to fire and excessive heat. For large fire the use of unmanned hose holders or monitor nozzles may be advantageous to further minimize personnel exposure.

Isolate area, particularly around ends of storage vessels. Let vessel, tank car or container burn unless leak can be stopped. Withdraw immediately in the event of a rising sound from a venting safety device. Large fires typically require specially trained personnel and equipment to isolate and extinguish the fire.

Firefighting activities that may result in potential exposure to high heat, smoke or toxic by-products of combustion should require NIOSH/MSHA-approved pressure-demand self-contained breathing apparatus with full facepiece and full protective clothing.

See Section 16 for the NFPA 704 Hazard Rating.

6. ACCIDENTAL RELEASE MEASURES (rev. Aug-98)

ACTIVATE FACILITY’S SPILL CONTINGENCY or EMERGENCY RESPONSE PLAN.

Evacuate nonessential personnel and secure all ignition sources. No road flares, smoking or flames in hazard area. Consider wind direction, stay upwind, if possible. Evaluate the direction of product travel. Cold vapor cloud may be white, but color will dissipate as cloud disperses - fire and explosion hazard is still present!

Stop the source of the release, if safe to do so. Consider the use of water spray to disperse vapors. Isolate the area until gas has dispersed. Ventilate and gas test area before entering.

7. HANDLING and STORAGE (rev. Aug-98)

HANDLING and STORAGE PRECAUTIONS

Keep away from flame, sparks and excessive temperatures. Store only in approved containers. Bond and ground containers. Use only in well ventilated areas. See also applicable OSHA regulations for the handling and storage of this product, including, but not limited to, 29 CFR 1910.110 Storage and Handling of Liquefied Petroleum Gases.

8. EXPOSURE CONTROLS and PERSONAL PROTECTION (rev. Aug-94)

ENGINEERING CONTROLS

Use adequate ventilation to keep gas concentrations of this product below occupational exposure and flammability limits, particularly in confined spaces. Use explosion-proof equipment and lighting in classified/controlled areas.

EYE/FACE PROTECTION

Splash-proof safety goggles and/or faceshield for protection from pressurized gas

SKIN PROTECTION

Wear apron, faceshield, and cold-impervious, insulating gloves may protect from pressurized gas.

RESPIRATORY PROTECTION

Use a NIOSH/MSHA approved positive-pressure, supplied air respirator with escape bottle or self-contained breathing apparatus (SCBA) for gas concentrations above occupational exposure limits, for potential for uncontrolled release, if exposure levels are not known, or in an oxygen-deficient atmosphere.

CAUTION: Flammability limits (i.e., explosion hazard) should be considered when assessing the need to expose personnel to concentrations requiring respiratory protection.

9. PHYSICAL and CHEMICAL PROPERTIES  (rev. Jun-97)

APPEARANCE
Colorless gas. Cold vapor cloud may be white but the lack of visible gas cloud does not indicate absence of gas.

ODOR
Natural gas has a distinctive, disagreeable “natural gas” type odor when treated with an odorizing agent (typically < 0.1% ethyl mercaptan).

BASIC PHYSICAL PROPERTIES (for methane)
- BOILING POINT: -259 °F (-162 °C)
- VAPOR PRESSURE: 40 atm. @ -187 °F (-86 °C)
- VAPOR DENSITY (air = 1): 0.6
- SPECIFIC GRAVITY (H2O = 1): 0.4 @ -263 °F (-164 °C)
- SOLUBILITY (H2O): 3.5%

10. STABILITY and REACTIVITY (rev. Aug-94)

STABILITY: Stable. Hazardous polymerization will not occur.

CONDITIONS TO AVOID and INCOMPATIBLE MATERIALS
Keep away from strong oxidizers, ignition sources and heat.

HAZARDOUS DECOMPOSITION PRODUCTS
Carbon monoxide, carbon dioxide and non-combusted hydrocarbons (smoke).

11. TOXICOLOGICAL PROPERTIES  (rev. Aug-98; Tox-98)

ACUTE TOXICITY
Methane and ethane, the main components of natural gas, are considered practically inert in terms of physiological effects. At high concentrations these materials act as simple asphyxiants and may cause death due to lack of oxygen.

CARCINOGENICITY
- OSHA: NO
- IARC: NO
- NTP: NO
- ACGIH: NO

12. ECOLOGICAL INFORMATION  (rev. Aug-98)

This product is expected to exist entirely in the vapor phase in ambient air.

13. DISPOSAL CONSIDERATIONS (rev. Aug-98)
Consult federal, state and local waste regulations to determine appropriate disposal methods.

14. TRANSPORTATION INFORMATION  (rev. Aug-98)

PROPER SHIPPING NAME: NATURAL GAS, COMPRESSED (with high methane content)
HAZARD CLASS: 2.1
DOT IDENTIFICATION NUMBER: UN 1971
DOT SHIPPING LABEL: FLAMMABLE GAS

15. REGULATORY INFORMATION  (rev. Aug-98)

U.S. FEDERAL, STATE, and LOCAL REGULATORY INFORMATION
This product and its constituents listed herein are on the EPA TSCA Inventory. Any spill or uncontrolled release of this product, including any substantial threat of release, may be subject to federal, state and/or local reporting requirements. This product and/or its constituents may also be subject to other regulations at the state and/or local level. Consult those regulations applicable to your facility/operation.
CERCLA SECTION 103 and SARA SECTION 304 (RELEASE TO THE ENVIRONMENT)
This product does not contain any chemicals subject to the reporting requirements of CERCLA Section 103 or SARA 304. In addition, the CERCLA definition of hazardous substances contains a "petroleum exclusion" clause which exempts natural gas and synthetic gas usable for fuel and any indigenous components of such from the CERCLA Section 103 reporting requirements.

SARA SECTION 311/312 - HAZARD CLASSES

<table>
<thead>
<tr>
<th>ACUTE HEALTH</th>
<th>CHRONIC HEALTH</th>
<th>FIRE</th>
<th>SUDDEN RELEASE OF PRESSURE</th>
<th>REACTIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>___</td>
<td>___</td>
<td>X</td>
<td>___</td>
<td>___</td>
</tr>
</tbody>
</table>

SARA SECTION 313 - SUPPLIER NOTIFICATION
This product does not contain any chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act (EPCRA) of 1986 and of 40 CFR 372.

CANADIAN REGULATORY INFORMATION
Class A (Compressed Gas)   Class B, Division 1 (Flammable Gas)

16. OTHER INFORMATION (rev. Feb-00)

NFPA® 704 HAZARD RATING
HEALTH: 1 Slight
FIRE: 4 Extreme
REACTIVITY: 0 Negligible

HMIS® HAZARD RATING
HEALTH: 1 Slight
FIRE: 4 Severe
REACTIVITY: 0 Minimal

SUPERSEDES MSDS DATED: 08/12/98

ABBREVIATIONS:
AP = Approximately   < = Less than   > = Greater than
N/A = Not Applicable   N/D = Not Determined   ppm = parts per million

ACRONYMS:
ACGIH American Conference of Governmental Industrial Hygienists
AIHA American Industrial Hygiene Association
ANSI American National Standards Institute (212)642-4900
API American Petroleum Institute (202)682-8000
CERCLA Comprehensive Emergency Response, Compensation, and Liability Act
DOT U.S. Department of Transportation [General info: (800)467-4922]
EPA U.S. Environmental Protection Agency
HMIS Hazardous Materials Information System
IARC International Agency for Research on Cancer
MSHA Mine Safety and Health Administration
NFPA National Fire Protection Association (617)770-3000
NIOSH National Institute of Occupational Safety and Health
NOIC ACGIH TLV Notice of Intended Change
NTP National Toxicology Program
OPA Oil Pollution Act of 1990
OSHA U.S. Occupational Safety & Health Administration
PEL Permissible Exposure Limit (OSHA)
RCRA Resource Conservation and Recovery Act
REL Recommended Exposure Limit (NIOSH)
SARA Superfund Amendments and Reauthorization Act of 1986 Title III
SCBA Self-Contained Breathing Apparatus
SPCC Spill Prevention, Control, and Countermeasures
STEL Short-Term Exposure Limit (generally 15 minutes)
TLV Threshold Limit Value (ACGIH)
TSCA Toxic Substances Control Act
TWA Time Weighted Average (8 hr.)
WEEL Workplace Environmental Exposure Level (AIHA)
WHMIS Canadian Workplace Hazardous Materials Information System
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