

# SAFETY DATA SHEET

Cabot Oil & Gas Corporation

Date Issued : 10/26/2012

SDS No : CA201-006

Date Revised : 12/20/2012

Revision No : 1

## Sweet Natural Gas

### 1. PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** Sweet Natural Gas

**CHEMICAL FAMILY:** Hydrocarbon Mixture; Aliphatic Hydrocarbon

**ALTERNATE TRADE NAME(S):** Well Head Gas, Casing Head Gas

#### DISTRIBUTOR

Cabot Oil & Gas Corporation  
P.O. Box 4544  
Houston, TX 77210-4544

#### 24 HR. EMERGENCY TELEPHONE NUMBERS

(281) 589-4600

### 2. HAZARDS IDENTIFICATION

#### GHS CLASSIFICATIONS

Health	Physical
Carcinogenicity, Category 1 Hazard Not Otherwise Classified, Simple Asphyxiant	Gases Under Pressure, Liquefied gas Flammable Gases, Category 1

#### GHS LABEL

WARNING	 Flame
H000: May displace oxygen and cause rapid suffocation.	
 Gas cylinder	 Health hazard
WARNING	DANGER
H280: Contains gas under pressure; may explode if heated.	H350: May cause cancer.

#### PRECAUTIONARY STATEMENT(S)

##### Prevention:

P210: Keep away from heat/sparks/open flames/hot surfaces – no smoking.

P201: Obtain special instructions before use.

P202: Do not handle until all safety precautions have been read and understood.

P281: Use personal protective equipment as required.

##### Response:

P377: Leaking gas fire: Do not extinguish unless leak can be stopped safely.

P381: Eliminate all ignition sources if safe to do so.

P308+P313: IF exposed or concerned: Get medical advice/attention.

##### Storage:

P403: Store in a well-ventilated place.

P410+P403: Protect from sunlight. Store in a well-ventilated place.

# Sweet Natural Gas

## Disposal:

P501: Dispose of contents/container in accordance with local/regional/national/international regulations.

## EMERGENCY OVERVIEW

**IMMEDIATE CONCERNS: HAZARD DESCRIPTION / WARNING INFORMATION SUMMARY** - This material is a flammable gas. This product is toxic; inhalation of this material may cause severe injury or death. Please read entire contents of Section 2 of this Safety Data Sheet (SDS) for details.

## POTENTIAL HEALTH EFFECTS

**EYES:** This product is unlikely to cause eye irritation.

**SKIN:** This product is unlikely to cause skin irritation or injury.

**INGESTION:** This product is a compressed gas; hence oral exposure and resulting acute toxicity are unlikely.

**INHALATION:** This product is a simple asphyxiant. Excessive exposure may cause central nervous system effects such as dizziness, loss of balance and coordination, unconsciousness, coma, respiratory failure and death.

## SIGNS AND SYMPTOMS OF OVEREXPOSURE

**CARCINOGENICITY:** No component of this product present at levels greater than or equal to 0.1% is identified as a probable, possible, or confirmed carcinogen by IARC, NTP, OSHA or ACGIH.

**MUTAGENICITY:** Not Established.

## REPRODUCTIVE TOXICITY

**REPRODUCTIVE EFFECTS:** Not Established.

**TERATOGENIC EFFECTS:** Not Established.

**MEDICAL CONDITIONS AGGRAVATED:** Persons with pre-existing central nervous system disorders should refrain from contact with this material.

**ROUTES OF ENTRY:** Inhalation, skin contact, eye contact.

**TARGET ORGAN STATEMENT:** May cause damage to lungs and central nervous system.

**SENSITIZATION:** Not Established.

**COMMENTS: OTHER HAZARDS** - Not Established.

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Vol. %	CAS	EINECS	Classification
Methane	70 - 94	74-82-8	200-812-7	T+,N; R61, R26, R48/23, R50/53
Ethane	5 - 10	74-84-0	200-814-8	F+; R12
Propane	1 - 4	74-98-6	200-827-9	F+; R12
i-Butane	0.5 - 3	75-28-5	200-857-2	F+; R12
n-Butane	0.5 - 2	106-97-8	203-448-7	F+; R12
Carbon Dioxide	0.5 - 10	124-38-9	204-696-9	
Nitrogen	0.5 - 10	7727-37-9	231-783-9	
Benzene	may contain	71-43-2	200-753-7	F, T; R45, R46, R11, R36/38, R48/23/24/25, R65
Hydrogen Sulfide	may contain	7783-06-4	231-977-3	F+, T+, N; R12, R26, R50

**COMMENTS:** This may not be a complete list of components. Compositions given are typical values, not specifications.

( Full text of R-Phrases can be found under heading 16 )

## 4. FIRST AID MEASURES

**EYES:** Immediately flush eyes with plenty of water. Get medical attention, if irritation persists.

**SKIN:** Wash with soap and water. Get medical attention if irritation develops or persists.

**INGESTION:** This is not considered a major potential route of exposure.

**INHALATION:** Move victim to fresh air. Call 911, emergency medical service, or Emergency Phone Numbers(s) provided in Section 1 of this SDS. Give artificial respiration if victim is not breathing. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Administer oxygen if breathing is difficult.

**ANTIDOTES:** Not Established.

**NOTES TO PHYSICIAN: CLINICAL TESTING & MEDICAL MONITORING FOR DELAYED EFFECTS** - Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed. Provide general supportive measures and treat symptomatically.

## 5. FIRE FIGHTING MEASURES

**FLASH POINT:** -188 °C (-306.4°F)

**Notes:** Based on methane.

**FLAMMABLE LIMITS:** 1.0 to 15.0

**Notes:** Flammable Limits given as percentage volume in air at normal atmospheric temperature and pressure.

**AUTOIGNITION TEMPERATURE:** 482 °C (900 °F) to 649 °C (1200 °F)

**GENERAL HAZARD: DECOMPOSITION TEMPERATURE** - Not Established.

**EXTINGUISHING MEDIA:**

**SMALL FIRE** - Class B fire extinguisher, carbon dioxide, multipurpose dry chemical, water fog or alcohol-resistant foam.

**LARGE FIRE** - Water fog or alcohol-resistant foam.

**HAZARDOUS COMBUSTION PRODUCTS:** Any combustion, including incomplete combustion, may form carbon monoxide and carbon dioxide. Burning produces noxious and toxic fumes. Downwind personnel must be evacuated.

**OTHER CONSIDERATIONS: INAPPROPRIATE EXTINGUISHING MEDIA** - Do not use water jet.

**FIRE FIGHTING PROCEDURES:**

**PROTECTIVE ACTIONS TO TAKE DURING FIRE FIGHTING** - DO NOT extinguish a leaking gas flame unless the leak can be stopped. In many cases it will be preferable to allow continued burning. Move containers from fire area if you can do it without risk. Dike fire-control water for later disposal; do not scatter the material. Do not get water inside containers. Use water spray or fog; do not use straight streams. Note: Use of water spray when fighting fire may be inefficient or cause a chemical reaction. Persons involved in fire fighting response involving this product and its containers/packaging should refer to Section 8 of this SDS for the proper selection of exposure controls and personal protective equipment.

**FIRE FIGHTING EQUIPMENT: PRECAUTIONS FOR FIRE INVOLVING TANKS OR CAR/TRAILER LOADS** - Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Cool containers with flooding quantities of water until well after fire is out. Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank. **ALWAYS** stay away from tanks engulfed in fire. Isolate for 1600 meters (1 mile) in all directions; also consider initial evacuation for 1600 meters (1 mile) in all directions. For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

**FIRE EXPLOSION:** **HIGHLY FLAMMABLE.** Will be easily ignited by heat, sparks or flames. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back. Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks). Vapor explosion hazard indoors, outdoors or in sewers. Runoff to sewer may create fire or explosion hazard. Containers may explode when heated.

**COMMENTS:**

**SPECIFIC HAZARDS THAT MAY ARISE FROM THE PRODUCT** - Vapors are flammable and heavier than air. Vapors may travel across the ground and reach remote ignition sources causing a flashback fire danger.

## 6. ACCIDENTAL RELEASE MEASURES

**SMALL SPILL:** For emergency information and procedures to follow in the case of an accidental release, call the Emergency Telephone Number(s) listed in Section 1 of this SDS. Remove any ignition sources and protect from ignition. Water spray may reduce vapor but may not prevent ignition in closed spaces. A vapor suppressing foam may be used to reduce vapors. Provide sufficient ventilation in the affected area(s) and wear appropriate personal protective equipment as indicated in Section 8 of this

## **Sweet Natural Gas**

SDS when handling spill material. Isolate the area until gas has dispersed. Never discharge releases directly into sewers or surface waters.

**LARGE SPILL:** Use similar response procedures as indicated under Small Spill.

### **GENERAL PROCEDURES: MATERIALS & METHODS (EQUIPMENT & TECHNIQUES) FOR CONTAINMENT & CLEANUP -**

Call Emergency Telephone Number(s) provided in Section 1 of this SDS. As an immediate precautionary measure, isolate spill or leak area for at least 100 meters (330 feet) in all directions. Keep unauthorized personnel away. Stay upwind. Keep out of low areas. Ventilate closed spaces before entering.

**RELEASE NOTES: ENVIRONMENTAL PRECAUTIONS** - Prevent entry into waterways, sewers, basements or confined areas.

Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Avoid allowing water runoff to contact spilled material.

**SPECIAL PROTECTIVE EQUIPMENT: EMERGENCY & NON-EMERGENCY RESPONDERS** - Refer to Section 8 of this SDS for appropriate exposure controls and personal protective equipment (PPE).

---

## **7. HANDLING AND STORAGE**

**GENERAL PROCEDURES:** Handle in accordance with good industrial hygiene and safety practices. These practices include but are not limited to avoiding unnecessary exposure and prompt removal of material from eyes, skin and clothing. If needed, take first aid actions as indicated in Section 4 of this SDS.

**HANDLING:** Use only with adequate ventilation. Wear appropriate personal protective equipment and use exposure controls as indicated in Section 8 of this SDS. Vent slowly to the atmosphere when opening. Avoid all contact with skin and eyes. Avoid breathing product dust or vapors. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Do not reuse container. Remove contaminated clothing immediately. Wash with soap and water after working with this product.

**STORAGE:** Keep in airtight container away from all heat sources. Store in a segregated and approved area. Store in a cool, dry location, away from direct sunlight, sources of intense heat, or where freezing is possible. Keep container in a well-ventilated area. Ground all containers during transfer. Store away from incompatible materials. Cylinders should be separated from oxygen cylinders or other oxidizers by a minimum distance of 20 feet, or by a barrier of non-combustible material at least 5 feet high having a fire resistance rating of at least 1/2 hour. Store in the orginal container or an approved alternative made from compatible material. Do not store in unlabeled containers. Treat empty containers in a similar fashion as residual product may exist. Use appropriate containment to avoid environmental contamination.

**STORAGE TEMPERATURE:** Store containers in a room with ambient temperature.

**STORAGE PRESSURE:** Containers should be stored in room with ambient pressure.

**SHELF LIFE:**

**HOW TO MAINTAIN THE INTEGRITY OF THE SUBSTANCE BY USE OF STABILIZERS OR ANTIOXIDANTS** - Not Established.

**ELECTROSTATIC ACCUMULATION HAZARD:** To minimize the hazard of static electricity during transfer operations, bonding and grounding may be neccessary, but may not by themselves be sufficient. For more information, refer to OSHA Standard 29 CFR 1910.106; National Fire Protection Standard (NFPA) 77 - "Recommended Practice on Static Electricity"; and/or the American Petroleum Institute (API) Recommended Practice 2003 - "Protection Against Ignitions Arising Out of Static, Lighting and Stray Currents."

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION****EXPOSURE GUIDELINES**

OSHA HAZARDOUS COMPONENTS (29 CFR1910.1200)					
Chemical Name	EXPOSURE LIMITS				
	OSHA PEL		ACGIH TLV		
ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>		
Ethane	<b>TWA</b>	N/E	N/E	1000	N/E
	<b>STEL</b>	N/E	N/E	N/E	N/E
Propane	<b>TWA</b>	1000	1800	1000	N/E
	<b>STEL</b>	N/E	N/E	N/E	N/E
i-Butane	<b>TWA</b>	N/E	N/E	1000	N/E
	<b>STEL</b>	N/E	N/E	N/E	N/E
n-Butane	<b>TWA</b>	N/E	N/E	1000	N/E
	<b>STEL</b>	N/E	N/E	N/E	N/E
Carbon Dioxide	<b>TWA</b>	5000	9000	5000	9000
	<b>STEL</b>	N/E	N/E	30000	54000

**ENGINEERING CONTROLS:** Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

**PERSONAL PROTECTIVE EQUIPMENT**

**EYES AND FACE:** Employees should be provided with and required to use splash-proof safety goggles and splash shields where there is any possibility of product coming in contact with eyes. Ensure that eye wash station is operable and nearby.

**SKIN: GLOVES AND BOOTS** - Any impervious gloves and boots including butyl rubber, nitrile rubber or neoprene rubber.

**RESPIRATORY:** Depending on airborne concentration a full-face supplied air respirator is recommended, because air purifying respirators can not provide adequate protection.

**PROTECTIVE CLOTHING:** Depending on the conditions of use, protective gloves, apron, boots, head and face protection should be worn. Cotton clothing is recommended.

**WORK HYGIENIC PRACTICES:** Consider the potential hazards of this material, applicable exposure limits, job activities, environmental working conditions, and other substances in the workplace when designing engineering controls and selecting personal protective equipment (PPE). The user should read and understand all manufacturer instructions and limitations supplied with the personal protection equipment before use.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**ODOR:** Generally odorless (if no H<sub>2</sub>S is present and no no mercaptan added for odor).

**APPEARANCE:** Colorless gas.

**pH:** Not Applicable.

**PERCENT VOLATILE:** 100

**VAPOR PRESSURE:** Not Established.

**VAPOR DENSITY:** 0.6 to 0.8 (Air = 1)

**BOILING POINT:** -161 °C (-258 °F)

**Notes:** Based on methane.

**FREEZING POINT:** Not Applicable.

**MELTING POINT:** Not Applicable.

**FLASH POINT:** -188 °C (-306.4 °F)

## Sweet Natural Gas

**Notes:** Based on methane.

**EVAPORATION RATE:** Not Established.

**DENSITY:** Not Established.

**SPECIFIC GRAVITY:** Not Established.

**VISCOSITY:** Not Applicable.

**COEFF. OIL/WATER:** Not Established.

**ODOR THRESHOLD:** Not Established.

**COMMENTS: FLAMMABILITY** - Refer to Section 2 and Section 5 of this SDS for classification and flammability characteristics.

## 10. STABILITY AND REACTIVITY

**STABLE:** Yes

**HAZARDOUS POLYMERIZATION:** No

**STABILITY:** This product is anticipated to be stable under normal ambient storage and handling conditions of temperature and pressure.

**POLYMERIZATION:** This product is not anticipated to cause hazardous reactions or polymerizations under normal ambient storage and handling conditions of temperature and pressure.

**CONDITIONS TO AVOID:** Avoid contact with incompatible materials. Avoid exposure to excess heat, sparks, open flame, or other potential ignition sources. Prevent vapor accumulation.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Products of thermal decomposition include carbon oxides and nitrogen oxides.

**INCOMPATIBLE MATERIALS:** Strong oxidizing agents, liquid oxygen, mineral acids and metal catalysts.

## 11. TOXICOLOGICAL INFORMATION

### ACUTE

Chemical Name	ORAL LD <sub>50</sub> (rat)	DERMAL LD <sub>50</sub> (rabbit)	INHALATION LC <sub>50</sub> (rat)
Ethane	Not Established.	Not Established.	> 800000 ppm (15 min)
Propane	Not Established.	Not Established.	658 mg/L (4 hours)
i-Butane	Not Established.	Not Established.	658 mg/L (4 hours)
n-Butane	Not Established.	Not Established.	658 g/m <sup>3</sup>
Carbon Dioxide	Not Established.	Not Established.	30000 to 50000 ppm (30 min)
Benzene	930 mg/kg	> 9400 ug/kg	10000 ppm (7 hours)
Hydrogen Sulfide	Not Established.	Not Established.	444 ppm

**NOTES: ACUTE TOXICITY & HEALTH EFFECTS** - This product is a simple asphyxiant; higher concentrations may cause dizziness. Refer to Section 2 of this SDS for additional hazards identification.

**EYE EFFECTS:** Not expected to cause prolonged or significant eye irritation.

**SKIN EFFECTS:** Not expected to cause prolonged or significant skin irritation.

**CHRONIC: TOXICITY & HEALTH EFFECTS** - This product is not expected to be toxic. Refer to Section 2 of this SDS for additional hazards identification.

### CARCINOGENICITY

# Sweet Natural Gas

Chemical Name	NTP Status	IARC Status	OSHA Status
Benzene	1	1	Carcinogen.

**Notes:** No component of this product at levels greater than 0.1% is identified as a carcinogen by ACGIH, the International Agency for Research on Cancer (ARC), the U.S. National Toxicology Program (NTP) or the U.S. Occupational Safety and Health Act (OSHA).

**SENSITIZATION:** Not Established.

**NEUROTOXICITY:** Not Established.

**GENETIC EFFECTS:** Not Established.

**REPRODUCTIVE EFFECTS:** Not Established.

**TARGET ORGANS:** Contact may cause damage to the lungs and central nervous system.

**TERATOGENIC EFFECTS:** Not Established.

**MUTAGENICITY:** Not Established.

**SYNERGISTIC MATERIALS:** Not Established.

## 12. ECOLOGICAL INFORMATION

**ENVIRONMENTAL DATA: MOBILITY IN SOIL POTENTIAL** - Not Established.

**ECOTOXICOLOGICAL INFORMATION: TERRESTRIAL/MICROORGANISM TOXICITY** -

**ACUTE:** Ecological data does not exist for this mixture.

**CHRONIC:** Ecological data does not exist for this mixture.

**BIOACCUMULATION/ACCUMULATION:** Ecological data does not exist for this mixture.

**AQUATIC TOXICITY (ACUTE):** Ecological data does not exist for this mixture.

**Notes:** (CHRONIC) - Ecological data does not exist for this mixture.

**CHEMICAL FATE INFORMATION: PERSISTENCE & DEGRADABILITY** - Not Established.

**GENERAL COMMENTS:** Any other adverse environmental effects, such as environmental fate (exposure), ozone depletion potential, photochemical ozone creation potential, endocrine disrupting potential, and global warming potential are indicated in this section if data exists. Otherwise, this data has not been established.

**COMMENTS:** Data from laboratory studies and from scientific literature is noted in this section if available. Otherwise, data has not been established.

## 13. DISPOSAL CONSIDERATIONS

**DISPOSAL METHOD:** It is recommended that this product, in any form, be incinerated in a suitable combustion chamber for disposal. Empty containers should be disposed of in a similar fashion due to presence of product residue. Follow applicable Federal, state, and local regulations.

**PRODUCT DISPOSAL:** Persons conducting disposal of this product and its containers/packaging should refer to Section 8 of this SDS for the proper selection of exposure controls and personal protective equipment.

**EMPTY CONTAINER:** Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death.

**GENERAL COMMENTS: PHYSICAL & CHEMICAL PROPERTIES THAT MAY AFFECT DISPOSAL OPTIONS** - Not Established.

**COMMENTS:** Dispose of material in accordance with national, state, regional, and local regulations. Never discharge directly into sewers or surface waters. Consult with environmental regulatory agencies for guidance on acceptable disposal practices for the product, in any form, and its containers/packaging.

## 14. TRANSPORT INFORMATION

### DOT (DEPARTMENT OF TRANSPORTATION)

**PROPER SHIPPING NAME:** Compressed gas, flammable, n.o.s.

**PRIMARY HAZARD CLASS/DIVISION:** 2.1

**UN/NA NUMBER:** 1954

**NAERG:** 115

**LABEL:** 2.1: Flammable Gas

**MARINE POLLUTANT #1:** Not Listed.

# Sweet Natural Gas

## 15. REGULATORY INFORMATION

### UNITED STATES

#### SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

311/312 HAZARD CATEGORIES: Fire Hazard. Immediate (Acute) Health Hazard.

FIRE: Yes PRESSURE GENERATING: No REACTIVITY: No ACUTE: Yes CHRONIC: Yes

#### CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT)

Chemical Name	Wt.%	CERCLA RQ
Benzene	may contain	10
Hydrogen Sulfide	may contain	100

#### TSCA (TOXIC SUBSTANCE CONTROL ACT)

Chemical Name	CAS
Methane	74-82-8
Ethane	74-84-0
Propane	74-98-6
i-Butane	75-28-5
n-Butane	106-97-8
Carbon Dioxide	124-38-9
Nitrogen	7727-37-9

#### CLEAN AIR ACT

Chemical Name	Vol. %	CAS
Ethane	5 - 10	74-84-0
Propane	1 - 4	74-98-6
i-Butane	0.5 - 3	75-28-5
n-Butane	0.5 - 2	106-97-8

#### STATES WITH SPECIAL REQUIREMENTS

Chemical Name	Requirements
Ethane	Delaware Air Quality Management Massachusetts Hazardous Substance Minnesota Hazardous Substance New Jersey RTK Hazardous Substance New Jersey TCPA EHS Pennsylvania Hazardous Substance Washington PELs for Air Contaminants
Propane	Delaware Air Quality Management Massachusetts Hazardous Substance Minnesota Hazardous Substance New Jersey RTK Hazardous Substance Pennsylvania Hazardous Substance Washington PELs for Air Contaminants
	CA Hazardous Substance Delaware Air Quality Management Massachusetts Hazardous Substance

## Sweet Natural Gas

n-Butane	Minnesota Hazardous Substance New Jersey RTK Hazardous Substance Pennsylvania Hazardous Substance Pennsylvania Hazardous Substance Washington PELs for Air Contaminants
Carbon Dioxide	CA Hazardous Substance Maine Hazardous Air Pollutant Massachusetts Hazardous Substance Minnesota Hazardous Substance Pennsylvania Hazardous Substance Washington PELs for Air Contaminants
Benzene	CA Hazardous Substance Delaware Air Quality Management Illinois Toxic Air Contaminant Maine Hazardous Air Pollutant Massachusetts Hazardous Substance Michigan Critical Material Minnesota Hazardous Substance New Jersey RTK Hazardous Substance New York Hazardous Substance North Carolina Toxic Air Contaminant Pennsylvania Hazardous Substance Washington PELs for Air Contaminants West Virginia Toxic Air Pollutant Wisconsin Hazardous Air Containment
Hydrogen Sulfide	CA Hazardous Substance Delaware Air Quality Management Idaho Air Pollutant Massachusetts Hazardous Substance Maine Hazardous Air Pollutant Minnesota Hazardous Substance New Jersey RTK Hazardous Substance New Jersey TCPA EHS New York Hazardous Substance North Carolina Toxic Air Contaminant Pennsylvania Hazardous Substance Washington PELs for Air Contaminants Wisconsin Hazardous Air Containment

## 16. OTHER INFORMATION

**RELEVANT R-PHRASES:** R61: May cause harm to the unborn child.

R26: Very toxic by inhalation.

R48/23: Toxic : danger of serious damage to health by prolonged exposure through inhalation.

R50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R12: Extremely flammable.

R45: May cause cancer.

R46: May cause heritable genetic damage.

R11: Highly flammable.

R36/38: Irritating to eyes and skin.

R65: Harmful: may cause lung damage if swallowed.

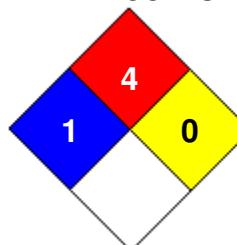
**PREPARED BY:** Total Safety d/b/a EHS Services

**REVISION SUMMARY:** This MSDS replaces the 10/26/2012 MSDS.

## Sweet Natural Gas

HMIS RATING	
HEALTH	1
FLAMMABILITY	4
PHYSICAL HAZARD	0
PERSONAL PROTECTION	H

## NFPA CODES



**HMIS RATINGS NOTES:** Please refer to Section 8 of this SDS for recommended personal protective equipment.

### DATA SOURCES:

#### REFERENCES

ACGIH. 2012 Guide to Occupational Exposure Values. Cincinnati, OH. Signature Publications, 2012.

Forsberg, K.; Mansdorf, S.Z. Quick Selection Guide to Chemical Protective Clothing. Fifth Edition. Hoboken, NJ. John Wiley & Sons, 2007.

Lide, D.R. CRC Handbook of Chemistry and Physics. 88th Edition. Boca Raton, FL. CRC Press, 2008.

UNECE. Globally Harmonized System of Classification and Labelling of Chemicals (GHS). Third Revised Edition. New York and Geneva. United Nations, 2009.

US DOT; Pipeline and Hazardous Materials Safety Administration. 2008 Emergency Response Guidebook. Neenah, WI. J.J. Keller & Associates, Inc. 2008.

US EPA. Consolidated List of Chemicals Subject to the Emergency Planning and Community Right-To-Know Act (EPCRA) and Section 112(r) of the Clean Air Act. [Available] Online: <http://www.epa.gov/ceppo/pubs/title3.pdf>. Retrieved 02/02/2011.

### ADDITIONAL MSDS INFORMATION:

#### KEY / LEGEND

ACGIH - American Conference of Governmental Industrial Hygienists

ADR - Agreement on Dangerous Goods by Road

CAA - Clean Air Act

CAS - Chemical Abstracts Service Registry Number

CDG - Carriage of Dangerous Goods By Road and Rail Manual

CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act

CFR - Code of Federal Regulations

EINECS - European Inventory of Existing Chemical Substances Registry Number

ERG - Emergency Response Guidebook

EPCRA - Emergency Planning and Community Right-to-Know Act

GHS - Globally Harmonized System of Classification and Labelling of Chemicals

IARC - International Agency for Research on Cancer

IATA - International Air Transport Association

ICAO - International Civil Aviation Organization

IMDG - International Maritime Dangerous Goods Code

IMO - International Maritime Organization

N/E - Not Established

NTP - National Toxicology Program

OSHA - Occupational Safety and Health Administration

PEL - Permissible Exposure Limit

PPE - Personal Protective Equipment

RCRA - Resource Conservation and Recovery Act

RID - Regulations Concerning the International Transport of Dangerous Goods by Rail

RQ - Reportable Quantities

SARA - Superfund Amendments and Reauthorization Act of 1986

SDS - Safety Data Sheet

TCC - Tag Closed Cup

TDG - Transportation of Dangerous Goods

TLV - Threshold Limit Value

TSCA - Toxic Substance Control Act

UN/NA - United Nations / North American Number

UNECE - United Nations Economic Commission for Europe

## **Sweet Natural Gas**

US DOT - United States Department of Transportation

US EPA - United States Environmental Protection Agency

Vol. - Volume

WHMIS - Workplace Hazardous Materials Information System

**GENERAL STATEMENTS:** Other information not included anywhere else in this SDS is included in this section if, in fact, such data exists.

**MANUFACTURER DISCLAIMER:** This information relates to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is to the best of our knowledge and belief, accurate and reliable as of the date compiled. However, no representation, warranty or guarantee is made as to its accuracy, reliability or completeness. NO WARRANTY OF MERCANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR ANY OTHER WARRANTY, EXPRESSED OR IMPLIED, IS MADE CONCERNING THE INFORMATION HEREIN PROVIDED. It is the user's responsibility to satisfy himself as to the suitability and completeness of such information for his own particular use. We do not accept liability for any loss or damage that may occur from the use of this information nor do we offer warranty against patent infringement.