



Safety Data Sheet Chemolene Fuel Gas

SECTION 1: PRODUCT AND COMPANY INFORMATION

Manufacturer Chemweld, Inc. – 4530 South Berkeley Lake Road – P.O. Box 1127 – Norcross – GA 30091
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Product Family Liquefied Petroleum Gas

Trade Name Chemolene Fuel Gas

Product ID Chemolene Fuel Gas

Recommended Uses Industrial Fuel Gas

24-Hour Emergency Phone Number
800.424.9300 Chemtrec

SECTION 2: HAZARD IDENTIFICATION



Pictogram Flame – Gas Cylinder

Signal Word:

DANGER

Physical Hazard:

Flammable Gas – Category 1 - Extremely flammable gas.

Gases Under Pressure – Category - Liquefied Gas - Contains gas under pressure, may explode if heated.

Precautionary statements

Prevention: Keep away from heat, hot surface, sparks, open flames, and other ignition sources. No smoking.

Response: **In case of leakage:** Eliminate all ignition sources.

Leaking gas fire: Do not extinguish, unless leak can be stopped safely. In case of leakage, eliminate all ignition sources if safe to do so.

Protect from sunlight. Store in a well-ventilated place.

Storage:

Disposal:

None

Environmental Hazards: Not Classified

HNOC:*

None

Supplemental Info: None

* Hazard(s) not otherwise classified

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS No.	Percent (wt.)
Propane	74-98-6	87.5
Pentane	109-66-0	10.2
Hydrocarbon Mixture	Mixture	2-3

SECTION 4: FIRST AID MEASURES

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention if necessary.

Skin Contact: Remove contaminated clothing. Flush area with tepid water. Do not use hot water. Do not rub affected area. If skin irritation persists, call a physician. In case of blistering, frostbite or freeze burns seek immediate medical attention.

Eye Contact: Immediately flush with tepid water for at least 15 minutes. Remove contact lenses. Protect unharmed eye. Keep eye wide open while rinsing. Seek medical attention.

Ingestion: Risk of ingestion is extremely low. However, if oral exposure occurs, seek immediate medical assistance. Potential for aspiration if swallowed. Get medical attention immediately. Do not induce vomiting. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person. Take victim immediately to hospital.

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

Information for doctor: Most important symptoms and effects, both acute and delayed: No further relevant information available.

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SECTION 5: FIREFIGHTING MEASURES

Emergency Handling: Fumes, smoke, carbon monoxide, sulfur oxides, aldehydes and other decomposition products, can be encountered in the course of incomplete combustion. Defective or improperly installed Chem-O-Lene equipment can cause leakage, resulting in asphyxiation, fire, or explosion; poorly vented equipment or incomplete combustion may produce a buildup of deadly carbon monoxide.

Suitable extinguishing agents: CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam. Any extinguisher suitable for Class B fires, dry chemical, firefighting foam, CO₂, and other gaseous agents. However, fire should not be extinguished unless flow of gas can be immediately stopped.

Unsuitable Extinguishing Media: None

General Fire Hazards: Liquid releases flammable vapors at well below ambient temperatures and readily forms a flammable mixture with air. Dangerous fire and explosion hazard when exposed to heat, sparks or flame. Vapors are heavier than air and may travel long distances to a point of ignition and flash back. Container may explode in heat or fire. Runoff to sewer may cause fire or explosion hazard.

Hazardous Combustion Products: Carbon monoxide, carbon dioxide and non-combusted hydrocarbons (smoke).

Fire Fighting Equipment/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-approved pressure-demand self-contained breathing apparatus with full face piece and full protective clothing. For fighting fires in buildings and confined spaces, firefighters must use self-contained breathing apparatus and full protective gear. Use water spray to keep fire-exposed containers and exposed areas cool. Do not allow run-off from firefighting to enter drains or water courses. Collect contaminated fire extinguishing water separately. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Refer to Section 8: Exposure Control and Personal Protection

Emergency Measures: Evacuate nonessential personnel and secure all ignition sources. Keep people away. Minimize breathing vapors. Minimize skin contact. Ventilate confined spaces. Open all windows and doors. No road flares, smoking or flames in hazard area. Consider wind direction, stay upwind and uphill, if possible. Evaluate the direction of product travel. Vapor cloud may be white, but color will dissipate as cloud disperses - fire and explosion hazard is still present! Do not touch spilled liquid (frostbite/freeze burn hazard!). Do not flush down sewer or drainage systems.

Detection: Because of the hazardous nature of propane, an odorant, or "stanching agent" is added to help detect a potentially hazardous leak. Chemweld, like many other propane dealers, uses ethyl mercaptan as the odorant, having it added in a ratio of 1.5 lb. per 10,000 gallons of propane - well above the minimum of 1.0 lb. per 10,000 gallons recommended by the National Fire Protection Association (NFPA). However, ethyl mercaptan, or any other odorant, may not be effective in all cases all the time and must not be exclusively relied on as a safety measure. This fact is recognized by the NFPA, which states in its "Standard for the Storage and Handling of Liquefied Petroleum Gases:" that "no odorant will be completely effective as a warning agent in every circumstance." It is therefore essential that Chem-O-Lene be used and handled in strict adherence to the safety procedures established by appropriate federal agencies and industrial organizations, such as NFPA. Codes, standards, and recommended practices regarding propane are contained in the "National Fire Codes," published by the NFPA, Batterymarch Park, Quincy, MA 02269.

Environmental precautions: Do not allow to enter sewers/ surface or ground water. Methods and material for containment and cleaning up: Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Minimize breathing gases, vapor, fumes or decomposition products. Use supplies-air-breathing equipment for enclosed or confined spaces or as otherwise needed.

Prevention of Secondary Hazards: None

Notification Procedures: In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

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SECTION 7: HANDLING AND STORAGE

Refer to Section 8: Exposure Control and Personal Protection

Precautions for safe handling: Open and handle receptacle with care. Keep away from flame, sparks and excessive temperatures. Bond and ground containers. Use only in well ventilated areas. Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Ground and bond containers when transferring material. Use spark-proof tools and explosion proof equipment. Avoid contact with eyes, skin, and clothing. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Take precautionary measures against static discharges. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames. Use only with adequate ventilations. Keep away from heat, sparks and flame. Avoid breathing vapor or mist.

Storage Procedures: "No smoking or open flames" signs need to be displayed in storage or use areas. Store only in approved containers. Bond and ground containers. Keep away from sparks, excessive temperatures and open flame. Keep containers closed and clearly labeled. Empty product containers or vessels may contain explosive vapors. Do not pressurize, cut, heat, weld or expose such containers to sources of ignition. Store in accordance with National Fire Protection Association recommendations listed in NFPA 58. Storage areas should be clear of materials that can burn. Storage areas should not be located near heavy traffic areas, egress routes, or occupied buildings. Storage areas must meet National Electrical Code requirements for Class I, Division 1 and 2 hazardous areas. Containers must be labeled following regulatory guidelines.

Incompatibilities: Keep away from strong oxidizers, ignition sources and heat. Explosion hazard when exposed to chlorine dioxide. Heating barium peroxide with propane causes violent exothermic reaction. Heated chlorine-propane mixtures are explosive under some conditions.

SECTION 8: EXPOSURE CONTROL AND PERSONAL PROTECTION

Exposure Controls:

Pentane TLV 600 ppm ACGIH PEL 1000 ppm OSHA - General Industry STEL 1500 ppm NIOSH

Propane ACGIH: 1000 ppm TWA (listed under Aliphatic hydrocarbon gases: Alkane C1-4) OSHA: 1000 ppm TWA; 1800 mg/m³ TWA NIOSH: 1000 ppm TWA; 1800 mg/m³ TWA

Engineering Measures: Use adequate ventilation to keep gas and vapor concentrations of this product below occupational exposure and flammability limits, particularly in confined spaces. Use explosion-proof equipment and lighting to maintain adequate ventilation to meet occupational exposure limits, if applicable (see below), prevent accumulation of explosive air-gas mixtures, and avoid significant oxygen displacement. Oxygen levels should be at least 19.5% in confined spaces or other work areas (OSHA value).

Personal Protective Equipment

Eye and Face Protection: Safety glasses, chemical type goggles, or face shield recommended to prevent eye contact. Wear tight fitting ANSI Z87.1 safety glasses. Use chemical splash goggles where there is a potential for splash or spill.

Skin Protection: Protective clothing such as coveralls or lab coats should be worn. Launder or dry clean when soiled. Gloves and boots resistant to chemicals and petroleum distillates required. When handling large quantities, impervious suits must also be worn. Insulated gloves also required if contact with molten product or heated equipment is expected. Also take into consideration the specific local conditions under which the product is used, such as danger of cuts, abrasion, and the contact time. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

Respiratory Protection: Airborne concentrations should be kept to lowest levels possible. If vapor, mist or dust is generated and the occupational exposure limit of the product, or any component of the product, is exceeded, use appropriate NIOSH or MSHA approved air purifying or air supplied respirator after determining the airborne concentration of the contaminant. Air supplied respirators should always be worn when airborne concentration of the contaminant or oxygen content is unknown.

Personal protective equipment: General protective and hygienic measures: Keep away from foodstuffs, beverages and feed. Wash hands before breaks and at the end of work. Use chemical-resistant apron or other clothing, if needed, to avoid skin contact (frostbite protection).

Additional information: The lists that were valid during the creation were used as basis. This product is a compressed gas. Do not store near heat, sparks, flame or strong oxidants. To minimize fire or explosion risk from static charge accumulation and discharge, effectively ground product transfer system in accordance with the National Fire Protection Association standard for Petroleum Products. The very high volatility of this material will cause extremely rapid evaporation. Keep containers closed when not in use. Do not fill or store near heat, sparks, flame or strong oxidants. Avoid creating static electricity. In order to prevent fire or explosion hazards use appropriate equipment. Information on electrical equipment appropriate for use with this product may be found in the latest edition of the National Electrical Code (NFPA-70). This document is available from the National Fire Protection Association, Batterymarch, Quincy, Massachusetts 02269 appropriate: Flame retardant antistatic protective clothing. Workers should wear antistatic footwear.

Hygiene Measures: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance/Physical State	Clear Liquid	Flash Point (°F/°C)	1.163265306
Specific Gravity (Water=1)	0.5	Lower/Upper Flammability Limits (Vol. %)	1.5 / 7.8
pH	Neutral	Auto-ignition Temperature (AIT) (°F/°C)	500 / 260
Solubility in Water (% at 68/20)	Negligible <0.1%	Decomposition Temperature	Not Determined
Odor	Petroleum	Vapor Pressure (@ 100°F /)	208
Odor Threshold	Not Determined	Vapor Density (Air=1)	1.5
Melting/Freezing Point (°F/°C)	Not Determined	Partition Coefficient (n-octanol/water)	Not Determined
Boiling Range (°F) D1267	-49	Viscosity (cSt) 104°F/40°C	Not Determined
Initial Boiling Point (°F/°C)	-34 / -0	Critical Temperature	Not Determined

Supplemental Information

Evaporation Rate (H ₂ O = 1)	<0.1	Percent Volatile	100
Corrosion (1 Hour 100°F) ASTM 1838	4	Molecular Weight: Volume:	45

Note: Physical and chemical properties are provided for safety, health and environmental considerations only and may not fully represent product specifications. Those should be requested separately.

SECTION 10: STABILITY AND REACTIVITY

Reactivity: Does not react under normal conditions of use.

Chemical Stability: Stable under normal conditions of use.

Stability/Incompatibility: Stable under normal conditions of use..

Conditions to Avoid: Heat, sparks, fires, and oxidizing agents. When subjected to heat or combustion toxic levels of carbon monoxide, carbon dioxide, irritating aldehydes and ketones are generated. Explosion hazard when exposed to chlorine dioxide. Heating barium peroxide with propane causes violent exothermic reaction. Heated chlorine-propane mixtures are explosive under some conditions.

Hazardous Reactions/Decomposition Products: Carbon monoxide, carbon dioxide and non-combusted hydrocarbons (smoke).

Hazardous Polymerization: Does not occur.

SECTION 11: TOXICOLOGICAL INFORMATION

Information on toxicological effects: Acute toxicity: LD/LC50 values that are relevant for classification: 64742-48-9 Naphtha (petroleum), hydrotreated heavy Oral LD50 >5000 mg/kg (rat) Dermal LD50 >3000 mg/kg (rab)

n-Pentane Acute Oral Toxicity: LD50 rat Dose: > 2,000 mg/kg Acute Inhalation Toxicity: LC50 rat Dose: 18 mg/L

On the skin: Irritating to skin. Can be partially absorbed through the skin

On the eye: Irritating to the eyes.

Ingestion: May be fatal if swallowed and enters the airways. Substances known to cause human aspiration toxicity hazards or to be regarded as if they cause human aspiration toxicity hazard.

Inhalation: Concentrations substantially above the TLV value may cause narcotic effects. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. Solvents may degrease the skin.

Sensitization: No sensitizing effects known.

Carcinogenic categories: IARC (International Agency for Research on Cancer) Substance is not listed. NTP (National Toxicology Program) Substance is not listed.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity: Acute Toxicity Fish: Fish: Rainbow trout: LC50 = 9.87 mg/L; 96 Hr.; Unspecified Fish: Fathead Minnow: LC50 = 11.59 mg/L; 96 Hr.; Unspecified Fish: Bluegill/Sunfish: LC50 = 9.99 mg/L; 96 Hr.; Unspecified Water flea Daphnia: LC50 = 9.7mg/L; 48 Hr.; Unspecified No data available.

Persistence/degradability: Major constituents are inherently biodegradable.

Bioaccumulative Potential: Accumulation in aquatic organisms is unlikely. Photolysis or hydrolysis of n-pentane is not expected to be important in soils. The biodegradation of n-pentane may occur in soils; however, primarily volatilization and to some extent adsorption are expected to be far more important fate processes. A calculated Koc range of 580-1600 indicates a low mobility class for n-pentane in soils. Based upon an estimated Henry's Law Constant of 1.26 atm-cu m/mole, n-pentane is expected to rapidly volatilize from surface soils.

Other Adverse Effects: Films formed on water may affect oxygen transfer and damage organisms

Mobility: Partly evaporates from water or soil surfaces, but a significant proportion will remain.

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SECTION 13: DISPOSAL CONSIDERATION

US/RCRA Waste Disposal Methods:

This product (as presently constituted) has the RCRA classification of benzene toxicity and ignitability. If discarded in its present form, it would have the hazardous waste numbers D018 and D001 respectively. Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the product meets RCRA criteria for hazardous waste. This is because product uses, transformations, mixtures, processes, etc. may change the classification to nonhazardous, or hazardous for reasons other than, or in addition to benzene toxicity and ignitability. Do not allow to enter drains or sewers. Do not allow to drain into surface waters.

SECTION 14: TRANSPORT INFORMATION

DOT: Liquefied Petroleum
Identification Number: UN1075
Packing Group: II
Label Required: Flammable liquid

SECTION 15: REGULATORY INFORMATION

TSCA: All components of this product are listed on the U.S. TSCA inventory

DSL: This product, or its components, are listed on or are exempt from the Canadian Domestic Substances List (DSL)

EPA Superfund Amendment & Reauthorization Act (SARA): CERCLA/SARA: Section 302 Extremely Hazardous Substances and TPQs - None

SARA Section 311/312 None

SARA HAZARD CATEGORIES, SARA SECTIONS 311/312 (40 C.F.R. § 370.21): ACUTE HAZARD: Yes. CHRONIC HAZARD: No. FIRE HAZARD: Yes. REACTIVITY HAZARD: No. SUDDEN RELEASE HAZARD: Yes.

CERCLA/SARA 313 The material is covered by the CERCLA petroleum exclusion.

States:

California Proposition 65: The California Safe Drinking Water and Toxic Enforcement Act of 1986. None of the chemicals in this product are listed. Pentane can be found on the following state right to know lists: California, New Jersey, Pennsylvania, Minnesota, and Massachusetts. New York - Reporting of Releases Part 597: =I lb. 'RQ Land/Water List of Hazardous Substances: = 100 lb. RQ Air

Canada: WHMIS: Naphthalene - B4, D2A - 15 (DSL Info Above.)

Other:

NFPA ratings (scale 0 - 4) Health = 1 Fire = 4 Reactivity = 0

HMIS-ratings (scale 0 - 4) Health = 1 Fire = 4 Reactivity = 0

SECTION 16: OTHER INFORMATION

Disclaimer: The information and recommendations contained herein are, to the best of Chemweld's knowledge and belief, accurate and reliable as of the date issued. Chemweld does not warrant or guarantee their accuracy or reliability, and Chemweld shall not be liable for any loss or damage arising out of the use thereof. The information and recommendations are offered for the user's considerations and examination, and it is the user's responsibility to satisfy itself that they are suitable and complete for its particular use. If buyer repackages this product, legal council should be consulted to insure proper health, safety and other necessary information is included on the container.