

**SECTION 1: IDENTIFICATION**

<i>Product Name</i>	Natural Gas Liquids
<i>Version Number</i>	1
<i>Issue Date</i>	
<i>CAS Number</i>	Mixture
<i>Synonyms</i>	Gas Liquids Condensate Y-Grade EPBC Mix
<i>Intended Use</i>	Sales to end user
<i>Manufacturer</i>	Thunder Creek Gas Services 1114 Energy Street   717 17 <sup>th</sup> Street; Suite 1500 Gillette, WY 82716   Denver, CO 80202 887-619-4680   303-296-2914
<i>Emergency Number</i>	Chemtrec: 800-424-9300 (24h)

**SECTION 2: HAZARDS**GHS Classification

<b>Physical Hazards</b>	Flammable Liquids – Category 1 (H224)
<b>Health Hazards</b>	Aspiration Hazard – Category 1 (H304) Skin Corrosion / Irritation – Category 2 (H315) Carcinogen – Category 1A (H350) Specific Target Organ Toxicity (Single Exposure) – Category 3 (H336)
<b>Environmental Hazards</b>	Aquatic Toxin, Chronic – Category 2 (H411)
<b>Signal Word</b>	<b><u>DANGER</u></b>

Label  
ElementsHazard Statement(s)

H224: Extremely flammable liquid or vapor  
H304: May be fatal if swallowed and enters airways  
H315: Causes skin irritation  
H350: May cause cancer

H336: May cause drowsiness or dizziness  
H411: Toxic to aquatic life with long lasting effects

Precautionary Statements

- Prevention** Obtain special instructions before use. (P201)\*  
Do not handle until all safety precautions have been read and understood. (P202)\*  
Keep away from heat/sparks/open flames/hot surfaces. - No smoking. (P210)\*  
Keep container tightly closed. (P233)\*  
Ground/bond container and receiving equipment. (P240)\*  
Use with explosion-proof equipment. (P241)\*  
Use only non-sparking tools. (P242)\*  
Take precautionary measures against static discharge. (P243)\*  
Avoid breathing dust/fume/gas/mist/vapor/spray. (P261)\*  
Wash thoroughly after handling. (P264)\*  
Wash thoroughly after handling. (P264)\*  
Use only outdoors or in a well-ventilated area. (P271)\*  
Wear protective gloves / protective clothing / eye protection / face protection. (P280)\*
- Response** IF ON SKIN: Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. (P303+P361+P353)\*  
If skin irritation occurs: Get medical advice/attention. (P313)\*  
Take off contaminated clothing and wash before reuse. (P362)\*  
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. (P301+P310)\*  
Do NOT induce vomiting. (P331)\*  
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. (P304+P340)\*  
Call a POISON CENTER or doctor/physician if you feel unwell. (P312)\*  
In case of fire: Use dry chemical, carbon dioxide, or foam for extinction.(P370+P378)\*
- Storage** Store in a well-ventilated place. Keep cool.(P403+P235)\*  
Store locked up. (P405)\*
- Disposal** Dispose of contents/container to approved disposal facility. (P501)\*

*\*applicable GHS precautionary statement*

**SECTION 3: COMPOSITION**

Ingredient	CASRN	Concentration (%V)
Natural gas (petroleum), raw liquid mixture	64741-48-6	100
<i>---including components listed below---</i>		
Ethane	74-84-0	5-15
Propane	74-98-6	30-40
Iso-Butane	75-28-5	5-10
n-Butane	106-97-8	20-30
Pentanes & other hydrocarbons in <0.1%	Mixture	20-30

n-Hexane	110-54-3	0.5-1
Benzene	71-43-2	0.1-0.2
Toluene	108-88-3	0.05-0.1

## SECTION 4: FIRST AID

**Eye Contact:** If irritation or redness develops from exposure, flush eyes with clean water. If symptoms persist, seek medical attention.

**Skin Contact:** Remove contaminated shoes and clothing, and flush affected area(s) with large amounts of water. If skin surface is damaged, apply a clean dressing and seek medical attention. If skin surface is not damaged, cleanse affected area(s) thoroughly by washing with mild soap and water or a waterless hand cleaner. If irritation or redness develops, seek medical attention. Wash contaminated clothing before reuse.

**Inhalation (Breathing):** If respiratory symptoms or other symptoms of exposure develop, move victim away from source of exposure and into fresh air in a position comfortable for breathing. If symptoms persist, seek immediate medical attention. If victim is not breathing, clear airway and immediately begin artificial respiration. If breathing difficulties develop, oxygen should be administered by qualified personnel. Seek immediate medical attention.

**Ingestion (Swallowing):** Aspiration hazard: Do not induce vomiting or give anything by mouth because this material can enter the lungs and cause severe lung damage. If victim is drowsy or unconscious and vomiting, place on the left side with the head down. If possible, do not leave victim unattended and observe closely for adequacy of breathing. Seek medical attention.

### Most Important Symptoms & Effects

**Acute:** Headache, drowsiness, dizziness, loss of coordination, disorientation and fatigue.  
**Delayed:** Possible development of leukemia (cancer) upon repeated inhalation of vapor. Dry skin and possible irritation with repeated or prolonged skin exposure.

### Note to Physician

Epinephrine and other sympathomimetic drugs may initiate cardiac arrhythmias in persons exposed to high concentrations of hydrocarbon solvents (e.g., in enclosed spaces or with deliberate abuse). The use of other drugs with less arrhythmogenic potential should be considered. If sympathomimetic drugs are administered, observe for the development of cardiac arrhythmias.

Federal regulations (29 CFR 1910.1028) specify medical surveillance programs for certain exposures to benzene above the action level or PEL (specified in Section (i)(1)(i) of the Standard). In addition, employees exposed in an emergency situation shall, as described in Section (i)(4)(i), provide a urine sample at the end of the shift for measurement of urine phenol.

## SECTION 5: FIRE-FIGHTING MEASURES

NFPA 704 Hazard Classification (0=Minimal, 1=Slight, 2=Moderate, 3=Serious, 4=Severe)

Flammability: 4  
Health: 1  
Reactivity: 0  
Special: -



**Unusual Fire & Explosion Hazards:** Extremely flammable. This material can be ignited by heat, sparks, flames, or other sources of ignition (e.g., static electricity, pilot lights, mechanical/electrical equipment, and electronic devices that are not UL certified intrinsically safe). Vapors may travel considerable distances to a source of ignition where they can ignite, flash back, or explode. May create vapor/air explosion hazard indoors, in confined spaces, outdoors, or in sewers. This product will float and can be reignited on surface water. Vapors are heavier than air and can accumulate in low areas. If container is not properly cooled, it may rupture with prolonged exposure to heat. Hazardous combustion / decomposition products may be released by this material when exposed to heat or fire. Use caution and wear protective clothing, including respiratory protection.

**Extinguishing Media:** Dry chemical, carbon dioxide, or foam is recommended. Water spray is recommended to cool or protect exposed materials or structures. Carbon dioxide can displace oxygen - use caution when applying carbon dioxide in confined spaces. Simultaneous use of foam and water on the same surface is to be avoided as water destroys the foam. Water may be ineffective for extinguishment, unless used under favorable conditions by experienced fire fighters.

**Fire Fighting Instructions:** For fires beyond the incipient stage, emergency responders in the immediate hazard area should wear protective clothing. When the potential chemical hazard is unknown, in enclosed or confined spaces, a self contained breathing apparatus should be worn. In addition, wear other appropriate protective equipment as conditions warrant (see Section 8).

Isolate immediate hazard area and keep unauthorized personnel out. Stop spill/release if it can be done safely. Move undamaged containers from immediate hazard area if it can be done safely. Water spray may be useful in minimizing or dispersing vapors and to protect personnel. Cool equipment exposed to fire with water, if it can be done safely. Avoid spreading burning liquid with water used for cooling purposes.

**Hazardous Combustion Products:** Combustion may yield smoke, carbon monoxide, and other products of incomplete combustion. Oxides of nitrogen and sulfur may also be formed.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

**Personal Precautions:** Extremely flammable. Liquid spills will create a fire hazard and may form an explosive atmosphere. Keep all sources of ignition and hot metal surfaces away from spill/release if safe to do so. The use of explosion-proof or intrinsically safe electrical equipment is recommended. Stay upwind and away from spill/release. Avoid direct contact with material. For large spills, notify persons downwind of the spill/release, isolate immediate hazard area, and keep unauthorized personnel out. Wear appropriate protective equipment, including respiratory protection, as conditions warrant (see Section 8). See Sections 2 and 7 for additional information on hazards and precautionary measures.

**Environmental Precautions:** Stop spill/release if it can be done safely. Prevent spilled material from

entering sewers, storm drains, other unauthorized drainage systems, and natural waterways. Use foam on spills to minimize vapors. Use water sparingly to minimize environmental contamination and reduce disposal requirements. If spill occurs on water notify appropriate authorities and advise shipping of any hazard. Spills into or upon navigable waters that cause a sheen or discoloration on the surface of the water, may require notification of the National Response Center (phone number 800-424-8802).

**Methods for Containment and Clean-Up:** Notify relevant authorities in accordance with all applicable regulations. Immediate cleanup of any spill is recommended. Dike far ahead of spill for later recovery or disposal. Absorb spill with inert material such as sand, and place in suitable container for disposal. If spilled on water remove with appropriate methods (e.g. skimming, booms or absorbents). In case of soil contamination, remove contaminated soil for remediation or disposal, in accordance with local regulations.

Recommended measures are based on the most likely spillage scenarios for this material; however local conditions and regulations may influence or limit the choice of appropriate actions to be taken.

## SECTION 7: HANDLING AND STORAGE

**Precautions for safe handling:** Keep away from ignition sources such as heat/sparks/open flame – No smoking. Take precautionary measures against static discharge. Nonsparking tools should be used. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/clothing and eye/face protection as necessary to avoid direct contact. Wash thoroughly after handling. Use good personal hygiene practices and wear appropriate personal protective equipment (see section 8).

*Extremely Flammable.* May vaporize easily at ambient temperatures. The vapor is heavier than air and may create an explosive mixture of vapor and air. Beware of accumulation in confined spaces and low lying areas. Electrostatic charge may accumulate and create a hazardous condition when handling or processing this material. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Refer to NFPA-70 and/or API RP 2003 for specific bonding/grounding requirements. Avoid use of electrical equipment near transfer areas. Do not enter confined spaces such as tanks or pits without following proper entry procedures in accordance with 29 CFR 1910.146. Remove and/or clean contaminated clothing or shoes as soon as possible. Keep contaminated clothing away from sources of ignition such as sparks or open flames.

*Static Accumulation Hazard:* Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding of tanks, transfer piping, and storage tank level floats are necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating an electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures. Special care should be given to ensure that special slow load procedures for "switch loading" are followed to avoid the static ignition hazard that can exist when higher flash point material (such as fuel oil or diesel) is loaded into tanks previously containing low flash point products (such as gasoline or naphtha). For more information, refer to OSHA Standard 29 CFR 1910.106, 'Flammable and Combustible Liquids', National Fire Protection Association (NFPA 77, 'Recommended

Practice on Static Electricity', and/or the American Petroleum Institute (API) Recommended Practice 2003, 'Protection Against Ignitions Arising Out of Static, Lightning, and Stray Currents'.

**Conditions for safe storage:** Keep container(s) tightly closed and properly labeled. Use and store this material in cool, dry, well-ventilated areas away from heat, direct sunlight, hot metal surfaces, and all sources of ignition. Store only in approved containers. Post area "No Smoking or Open Flame." Keep away from any incompatible material (see Section 10). Protect container(s) against physical damage. Outdoor or detached storage is preferred. Indoor storage should meet OSHA standards and appropriate fire codes.

"Empty" containers retain residue and may be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, or other sources of ignition. They may explode and cause injury or death. "Empty" drums should be completely drained, properly bunged, and promptly shipped to the supplier or a drum reconditioner. All containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations. Before working on or in tanks which contain or have contained this material, refer to OSHA regulations, ANSI Z49.1, and other references pertaining to cleaning, repairing, welding, or other contemplated operations.

## SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Component	Exposure Limits (ppm)		
	ACGIH	NIOSH	OSHA
Natural gas (petroleum), raw liquid mixture	TWA8: 300 (Gasoline)	—	—
Benzene	TWA8: 0.5 STEL15: 2.5 (skin)	TWA8: 0.1 STEL15: 1	TWA8: 1 STEL15: 5
Toluene	TWA8: 20	TWA8: 100 STEL15: 150	TWA8: 200 STEL10: 500
n-Hexane	TWA8: 50 (skin)	TWA8: 50	TWA8: 500

*Note: State, local or other agencies or advisory groups may have established more stringent limits. Consult an industrial hygienist or similar professional, or your local agencies, for further information.*

**Engineering controls:** If current ventilation practices are not adequate to maintain airborne concentrations below the established exposure limits, additional engineering controls or PPE may be required.

**Eye/Face Protection:** The use of eye protection that meets or exceeds ANSI Z87.1 is recommended to protect against potential eye contact, irritation, or injury. Depending on conditions of use, a face shield may be necessary.

**Skin/Hand Protection:** The use of gloves impervious to the specific material handled is advised to prevent skin contact. Users should check with manufacturers to confirm the breakthrough performance of their products. Depending on exposure and use conditions, additional protection may be necessary to prevent skin contact including use of items such as chemical resistant boots, aprons, arm covers, hoods,

coveralls, or encapsulated suits.

**Respiratory Protection:** A NIOSH approved, self-contained breathing apparatus (SCBA) or equivalent operated in a pressure demand or other positive pressure mode should be used in situations of oxygen deficiency (oxygen content less than 19.5 percent), unknown exposure concentrations, or situations that are immediately dangerous to life or health (IDLH).

A respiratory protection program that meets or is equivalent to OSHA 29 CFR 1910.134 and ANSI Z88.2 should be followed whenever workplace conditions warrant a respirator's use.

If benzene concentrations equal or exceed applicable exposure limits, OSHA requirements for personal protective equipment, exposure monitoring, and training may apply (29CFR1910.1028 - Benzene).

**NOTE: Respiratory protection alone will not provide adequate personnel protection in flammable environments.**

**Other Protective Equipment:** Eye wash and quick-drench shower facilities should be available in the work area. Thoroughly clean shoes and wash contaminated clothing before reuse.

*Suggestions provided in this section for exposure control and specific types of protective equipment are based on readily available information. Users should consult with the specific manufacturer to confirm the performance of their protective equipment. Specific situations may require consultation with industrial hygiene, safety, or engineering professionals.*

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Colorless
Physical Form:	Liquid
Odor:	Gasoline
Odor Threshold:	No Data
pH:	N/A
Vapor Pressure:	200-300 psia (@ 100F)
Vapor Density (air=1):	>1
Initial Boiling Point / Range:	-44 to 90 F
Melting / Freezing Point:	No Data
Solubility in Water:	Slight
Partition Coefficient (Kow):	No Data
Specific Gravity (water = 1):	0.4-0.6
Evaporation Rate:	No Data
Flash Point	< 10 F
Lower Explosive Limit (LEL):	1.0 (est.) %V in air
Upper Explosive Limit (UEL):	15 (est.) %V in air
Auto-Ignition Temperature:	No Data F

*NOTE: unless otherwise stated, all properties listed are at normal temperature and pressure.*

## SECTION 10: STABILITY AND REACTIVITY

**Stability:** Stable under normal ambient and anticipated conditions of use.

**Conditions to Avoid:** Avoid high temperatures and all sources of ignition. Prevent vapor accumulation.

**Materials to Avoid (Incompatible Materials):** Avoid contact with strong oxidizing agents and strong reducing agents.

**Hazardous Decomposition Products:** Not anticipated under normal conditions of use.

**Hazardous Polymerization:** Not known to occur.

## SECTION 11: TOXICOLOGICAL INFORMATION

### Exposure Route

Inhalation  
Absorption  
Ingestion

### Assessment of Acute Health Risk

Narcosis possible  
Typical exposure unlikely to trigger acute health effect.  
Typical exposure unlikely to trigger acute health effect.

**Aspiration Hazard:** May be fatal if swallowed and enters airways.

**Skin Corrosion/Irritation:** Causes skin irritation. Repeated exposure may cause skin dryness or cracking.

**Damage/Irritation:** Causes mild eye irritation.

**Skin Sensitization:** Not expected to be a skin sensitizer.

**Respiratory Sensitization:** No information available.

**Specific Target Organ Toxicity (Single Exposure):** May cause drowsiness and dizziness.

**Specific Target Organ Toxicity (Repeated Exposure):** Not expected to cause organ effects from repeated exposure.

**Carcinogenicity:** May cause cancer.

**Germ Cell Mutagenicity:** Not expected to cause heritable genetic effects.

**Reproductive Toxicity:** Not expected to cause reproductive toxicity.

## TOXICOLOGICAL EFFECTS OF COMPONENTS



Natural gas (petroleum), raw liquid mixture

Carcinogenicity:	Two year inhalation studies of vaporized unleaded gasoline produced an increased incidence of kidney tumors in male rats and liver tumors in female mice. Repeated skin application of various petroleum naphthas in mice for two years resulted in an increased incidence of skin tumors but only in the presence of severe skin irritation. Follow-up mechanistic studies suggest that the occurrence of these tumors may be the consequence of promotional processes and not relevant to human risk assessment. Epidemiology data collected from a study of more than 18,000 petroleum marketing and distribution workers showed no increased risk of leukemia, multiple myeloma, or kidney cancer from gasoline exposure. Unleaded gasoline has been identified as a possible carcinogen by the International Agency for Research on Cancer.
Target Organs:	Two year inhalation studies of wholly vaporized unleaded gasoline, and 90 days studies of various petroleum naphthas, did not produce significant target organ toxicity in laboratory animals. Nephropathy in male rats, characterized by the accumulation of alpha-2-u- globulin in epithelial cells of the proximal tubules was observed, however follow-up studies suggest that these changes are unique to the male rat.
Reproductive Toxicity	No evidence of developmental toxicity was found in pregnant laboratory animals (rats and mice) exposed to high vapor concentrations of unleaded gasoline and petroleum naphthas via inhalation. A two-generation reproductive toxicity study of vapor recovery gasoline did not adversely affect reproductive function or offspring survival and development.

Benzene

Carcinogenicity:	Benzene is an animal carcinogen and is known to produce acute myelogenous leukemia (a form of cancer) in humans. Benzene has been identified as a human carcinogen by IARC, the US National Toxicology Program and the US Occupational Safety and Health Administration.
Target Organs:	Prolonged or repeated exposures to benzene vapors can cause damage to the blood and blood forming organs, including disorders like leukopenia, thrombocytopenia, and aplastic anemia.
Reproductive Toxicity:	Some studies in occupationally exposed women have suggested benzene exposure increased risk of miscarriage and stillbirth and decreased birth weight and gestational age. The size of the effects detected in these studies was small, and ascertainment of exposure and outcome in some cases relied on self-reports, which may limit the reliability of these results.
Mutagenicity:	Benzene exposure has resulted in chromosomal aberrations in human lymphocytes and animal bone marrow cells. Exposure has also been associated with chromosomal aberrations in sperm cells in human and animal studies.

Toluene

Carcinogenicity:	Exposure of rats and mice to toluene at concentrations ranging from 120-1200 ppm for two years did not demonstrate evidence of carcinogenicity. Toluene has
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	not been listed as a carcinogen by IARC.
Target Organs:	Epidemiology studies suggest that chronic occupational overexposure to toluene may damage color vision. Subchronic and chronic inhalation studies with toluene produced kidney and liver damage, hearing loss and central nervous system (brain) damage in laboratory animals. Intentional misuse by deliberate inhalation of high concentrations of toluene has been shown to cause liver, kidney, and central nervous system damage, including hearing loss and visual disturbances.
Reproductive Toxicity:	Exposure to toluene during pregnancy has demonstrated limited evidence of developmental toxicity in laboratory animals. Decreased fetal body weight and increased skeletal variations in both inhalation and oral studies, but only at doses that were maternally toxic. No fetal toxicity was seen at doses that were not maternally toxic. Decreased sperm counts have been observed in male rats in the absence of a reduction in fertility. Toluene has been reported to cause mental or growth retardation in the children of solvent abusers who directly inhale toluene during pregnancy.

n-Hexane

Target Organs:	Excessive exposure to n-hexane can result in peripheral neuropathies. The initial symptoms are symmetrical sensory numbness and paresthesias of distal portions of the extremities. Motor weakness is typically observed in muscles of the toes and fingers but may also involve muscles of the arms, thighs and forearms. The onset of these symptoms may be delayed for several months to a year after the beginning of exposure. The neurotoxic properties of n-hexane are potentiated by exposure to methyl ethyl ketone and methyl isobutyl ketone.
Reproductive Toxicity:	Prolonged exposure to high concentrations of n-hexane (>1,000 ppm) resulted in decreased sperm count and degenerative changes in the testes of rats but not those of mice.

**SECTION 12: ECOLOGICAL INFORMATION**

**Aquatic Toxicity:** Acute aquatic toxicity studies on samples of gasoline and naphtha streams show acute toxicity values greater than 1 mg/L and mostly in the range 1-100 mg/L. Results are consistent with the predicted aquatic toxicity of these substances based on their hydrocarbon composition. These substances should be regarded as toxic to aquatic organisms, with the potential to cause long term adverse effects in the aquatic environment.

**Persistence and Degradability:** The hydrocarbons in this material are regarded as inherently biodegradable since their hydrocarbon components can be degraded by microorganisms.

**Bioaccumulation:** Log Kow values measured for the hydrocarbon components of this material range from 3 to greater than 6 and therefore are regarded as having the potential to bioaccumulate. In practice, metabolic processes or physical properties may prevent this effect or limit bioavailability.

**Mobility:** On release to water, hydrocarbons will float on the surface and since they are sparingly soluble, the only significant loss is volatilization to air. In air, these hydrocarbons are photodegraded by reaction with hydroxyl radicals with half lives varying from 6.5 days for benzene to 0.5 days for n-dodecane.

**Other Adverse Effects:** None anticipated.

### SECTION 13: DISPOSAL CONSIDERATIONS


The generator of a waste is always responsible for making proper hazardous waste determinations and must consider state and local requirements in addition to federal regulations.

This material, if discarded as produced, would not be a federally regulated RCRA "listed" hazardous waste. However, it is possible that the material as produced contains constituents which are not required to be listed in the MSDS but could affect the hazardous waste determination. Additionally, use which results in chemical or physical change of this material could subject it to regulation as a hazardous waste.

Container contents should be completely used and containers should be emptied prior to discard. Container residues could be considered to be hazardous wastes.

### SECTION 14: TRANSPORTATION INFORMATION

U.S. Department of Transportation (DOT)

Shipping Name(s):	Petroleum gases, liquefied	Hydrocarbon gas mixture, liquefied n.o.s.
Identification Number(s):	UN1075	UN1965
Placard / Marking:	Flammable Gas / 1075	Flammable Gas / 1965
Hazard Class / Division:	2.1	
Label:		
Bulk Packaging References:	49 CFR 173.314 & 315	
Non-Bulk Packaging References:	49 CFR 173.304 & 306	
Emergency Response Guide:	115	

Canadian (TDG)

Except as listed below, transportation criteria is the same as listed above if vapor pressure of product exceeds 300 kPa.

Shipping Name(s):	Hydrocarbon gas mixture, liquefied n.o.s. (Propane; Butane)
Identification Number(s):	UN1965
ERAP Index	3000

International Maritime Dangerous Goods (IMDG)

Except as listed below, transportation criteria are the same as listed above in DOT section.

Shipping Name(s):	Hydrocarbon gas mixture, liquefied n.o.s. (Propane; Butane)
Identification Number(s):	UN1965
Non-Bulk Packaging:	P200
EMS:	F-D, S-U

*If transported in bulk by marine vessel in international waters, product is being carried under the scope of MARPOL Annex I.*

International Civil Aviation Org. / International Air Transport Association (ICAO / IATA)

Except as listed below, transportation criteria are the same as listed above in DOT section.

Shipping Name(s):	Hydrocarbon gas mixture, liquefied n.o.s. (Propane; Butane)
Identification Number(s):	UN1965
Subsidiary Risk:	None
Packing Group:	None
ERG Code:	10L

***Transportation of this product is forbidden on passenger aircraft.***

## SECTION 15: REGULATORY INFORMATION

This material contains no extremely hazardous substances subject to SARA 302.

**NOTE: CERCLA 101(14), the Petroleum Exclusion, applies to this material.**

CERCLA / SARA Section 311 & 312 (Title III Hazard Categories)

This material is subject to the reporting requirements of Title III as follows:

Acute Health:	YES
Chronic Health:	YES
Fire Hazard:	YES
Pressure Hazard:	NO
Reactive Hazard:	NO

CERCLA / SARA Section 313 (TRI) & 40 CFR 372

The following chemicals as components of the material are subject to the reporting requirements of Section 313 and 40 CFR 372:

Component	Concentration (%V)	Reporting Threshold (%V)
Benzene	0.1-0.2	0.1
Toluene	0.05-0.1	1.0
n-Hexane	0.5-1.0	1.0

California Proposition 65

This material may contain detectable quantities of the following chemicals, known to the State of California to cause cancer, birth defects or other reproductive harm, and which may be subject to the warning requirements of California Proposition 65 (CA Health & Safety Code Section 25249.5):

Benzene	Cancer, Developmental Toxicant, Male Reproductive Toxicant
Toluene	Developmental Toxicant, Female Reproductive Toxicant

International Hazard Classification

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the regulations.

WHMIS Hazard Class	
B2	Flammable Liquid
D2A	
D2B	

National Chemical Inventories

All components are either listed on the US TSCA Inventory, or are not regulated under TSCA. All components are either on the DSL, or are exempt from DSL listing requirements.

U.S. Export Control Classification Number: EAR99

**SECTION 16: OTHER INFORMATION**

Guide to Abbreviations

ACGIH = American Conference of Governmental Industrial Hygienists; CASRN = Chemical Abstracts Service Registry Number; CEILING = Ceiling Limit (15 minutes); CERCLA = The Comprehensive Environmental Response, Compensation, and Liability Act; EPA = Environmental Protection Agency; GHS = Globally Harmonized System; IARC = International Agency for Research on Cancer; INSHT = National Institute for Health and Safety at Work; IOPC = International Oil Pollution Compensation; LEL = Lower Explosive Limit; NE = Not Established; NFPA = National Fire Protection Association; NTP = National Toxicology Program; OSHA = Occupational Safety and Health Administration; PEL = Permissible Exposure Limit (OSHA); SARA = Superfund Amendments and Reauthorization Act; STEL = Short Term Exposure Limit (15 minutes); TLV = Threshold Limit Value (ACGIH); TWA8 = Time Weighted Average (8 hours); UEL = Upper Explosive Limit; WHMIS = Worker Hazardous Materials Information System (Canada)

Disclaimer

The information presented in this Material Safety Data Sheet is based on data believed to be accurate as of the date this Material Safety Data Sheet was prepared. HOWEVER, NO WARRANTY OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR ANY OTHER WARRANTY IS EXPRESSED OR IS TO BE IMPLIED REGARDING THE ACCURACY OR COMPLETENESS OF THE INFORMATION PROVIDED ABOVE, THE RESULTS TO BE OBTAINED FROM THE USE OF THIS INFORMATION OR THE PRODUCT, THE SAFETY OF THIS PRODUCT, OR THE HAZARDS RELATED TO ITS USE. No responsibility is assumed for any damage or injury resulting from abnormal use or from any failure to adhere to recommended practices. The information provided above, and the product, are furnished on the condition that the person receiving them shall make their own determination as to the suitability of the product for their particular purpose and on the condition that they assume the risk of their use. In addition, no authorization is given nor implied to practice any patented invention without a license.