

## Safety Data Sheet (CANADA)

### 1. Identification

**Product Identifier:** Natural Gas Liquids

**Other Means of Identification:** NGL, L.P.G. (Liquefied Petroleum Gas)

**Product use:** Heating and cooking fuel, gasoline blending, feedstock for production of petrochemicals

**Restrictions on use:** Do not use for purposes other than those listed above

**Manufacturer:** Keyera and Affiliates





**Address:** Suite 600, Sunlife Plaza West  
144 – 4<sup>th</sup> Avenue SW  
Calgary, AB, T2P 3N4

**SDS Information:** 1-780-449-7910

**Emergency Contact (24 hours):** 1-613-996-6666 (CANUTEC, Canada)  
1-800-424-9300 (CHEMTREC, U.S.)

### 2. Hazards Identification

**GHS Hazards**

Pictogram	Classification	Hazard Statements
	Flammable Gases – Category 1	Extremely flammable gas.
	Gases Under Pressure – Liquefied Gas	Contains gas under pressure; may explode if heated.
	Specific Target Organ Toxicity, Single Exposure – Category 3  Skin corrosion/irritation – Category 2  Eye damage/irritation – Category 2A	May cause drowsiness or dizziness.  Causes skin irritation.  Causes serious eye irritation.
	Specific Target Organ Toxicity, Single Exposure – Category 2  Carcinogenicity – Category 1A  Toxic to reproduction – Category 1A	May cause damage to heart.  May cause cancer  May damage fertility or the unborn child.
No pictogram	Simple Asphyxiant	May displace oxygen and cause rapid suffocation.



**Signal Word:** Danger

**Precautionary Statements:**

**Prevention**

- Keep away from heat, hot surfaces, sparks, open flames and other ignition sources – No smoking.
- Do not breathe gas.
- Wash hands thoroughly after handling.
- Wear protective gloves/protective clothing/eye protection/face protection.
- Do not eat, drink or smoke when using this product.
- Use only outdoors or in a well-ventilated area.
- Obtain special instructions before use.
- Do not handle until all safety precautions have been read and understood.

**Response**

- Leaking gas fire: Do not extinguish, unless leak can be stopped safely.
- In case of leakage, eliminate all ignition sources.
  
- If inhaled: Remove person to fresh air and keep comfortable for breathing.
- Get medical advice/attention if you feel unwell.
  
- If on skin: Wash with plenty of water.
- Take off contaminated clothing and wash it before reuse.
- If skin irritation occurs: Get medical advice/attention.
- If exposed or concerned: Call a physician/doctor.
  
- If in eyes: Rinse cautiously with water for several minutes. Remove contact lens, if present and easy to do. Continue rinsing.
- If eye irritation persists: Get medical advice/attention.

**Storage**

- Store in a well-ventilated place.
- Protect from sunlight.
- Keep container tightly closed.
- Store locked up.

**Disposal**

- Dispose of contents/container in accordance with applicable local, provincial/state, and federal regulations.

### 3. Composition/Information on Ingredients

**Chemical Name:** Natural Gas Liquid  
**Common Name/Synonyms:** NGL, L.P.G. (Liquefied Petroleum Gas)

Ingredient Name	Volume %	CAS No.
Methane	Trace (0 – 1.0)	74-82-8,
Ethane	0 – 30	74-84-0
Propane	2 – 65	74-98-6
iso-Butane	2 – 20	75-28-5
n-Butane	10 – 30	106-97-8
iso-Pentane	1 – 15	78-78-4
n-Pentane	1 – 20	109-66-0
Hexanes	0 – 10	
Heptanes Plus (C7 +)	0 – 10	
Benzene	0 – 0.2	71-43-2
Toluene	0 – 0.2	108-88-3
Xylene (mixed isomers)	trace	1330-20-7

### 4. First Aid Measures

**Immediate Medical Attention and Special Treatment:**  
Treat symptomatically and supportively. Refer also to Table below.

First Aid:	
Inhalation :	Remove person to fresh air and keep comfortable for breathing. If exposed or concerned: Call a doctor/physician.
Skin:	Take off immediately all contaminated clothing. Wash skin with plenty of water. If skin irritation occurs: get medical advice/attention.
Eyes:	Rinse cautiously with water for several minutes. Remove contact lens, if present and easy to do. Continue rinsing. If eye irritation persists: get medical advice/attention.
Ingestion:	Not expected to be a route of exposure.

**Most Important Effects and Symptoms, Acute or Delayed:**  
Benzene may cause cancer (leukemia) through skin exposure; Toluene may cause damage to fertility and the unborn child.

Exposure Route	Health Effects	Symptoms of Exposure
Inhalation:	NGL may act as an asphyxiant by displacing oxygen in the ambient air, causing suffocation.	Loss of consciousness, death.
Skin:	May cause irritation; contact with liquefied gas may cause burn or frostbite. See also exposure (skin) to benzene being carcinogen	numbness, cold, burning sensation, white, pale, greyish-yellow or red skin, blistering in severe cases.
Eyes:	May cause irritation; contact with liquefied gas may cause burn or eye damage.	numbness, cold or burning sensation, blistering to blindness in severe cases.

**5. Fire Fighting Measures**

<p><b>Flammability:</b> Yes..</p>	<p><b>Hazardous Combustion Products:</b> Carbon monoxide (CO), carbon dioxide (CO<sub>2</sub>), and acrid smoke.</p>
<p><b>Explosion:</b> Sensitive to impact: No</p>	<p><b>Sensitive to static discharge:</b> Yes</p>
<p><b>Extinguishing Media:</b> Small Fire: dry chemical or CO<sub>2</sub>. Large Fire: water spray or fog.</p>	
<p><b>Unsuitable Extinguishing Media:</b></p> <ul style="list-style-type: none"> <li>• Foam.</li> <li>• Water jet: Do not direct water at source of leak, especially with NGL to avoid icing.</li> </ul>	
<p><b>Special Protective Equipment for Firefighters:</b></p> <ul style="list-style-type: none"> <li>• Wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full face-piece.</li> <li>• Wear thermal protective clothing when the fire involves liquefied gas.</li> </ul>	
<p><b>Precautions for Firefighters:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT EXTINGUISH A LEAKING GAS FIRE UNLESS THE LEAK CAN BE STOPPED.</b></li> <li>• If tank, rail car or tank truck is involved in a fire, ISOLATE and consider initial evacuation <u>in all directions</u> for 1600 meters (1 mile).</li> <li>• Move container from fire area if you can do it without risk.</li> <li>• Apply cooling water to sides of containers exposed to flames until well after fire is out.</li> <li>• Cool fire-exposed containers with flooding quantities of water applied from as far a distance as possible.</li> <li>• Stay away from ends of tanks.</li> <li>• Containers exposed to fire may explode or vent through pressure-relief devices.</li> <li>• Refer to Guide 115 of the Emergency Response Guidebook (Transport Canada/US Dept. of Transportation).</li> </ul>	
<p><b>Unusual Fire and Explosion Hazards:</b></p> <ul style="list-style-type: none"> <li>• The highly flammable vapors are heavier than air and may accumulate in low areas and /or spread along ground to distant ignition sources and flash back.</li> <li>• The product is not soluble in (and floats on top of) water. Using water as an extinguishment may spread the fire rapidly.</li> </ul>	

**6. Accidental Release Measures**

**Protective Equipment:**

Gloves: Recommended: neoprene and nitrile; insulating gloves (for liquefied gas).  
 Not recommended: polyvinyl chloride PVC.

Clothing: Flame-retardant coverall e.g. Nomex, Proban. Protective apron and trousers worn over coveralls for handling NGL.

Respirator: NIOSH Approved Supplied-Air Respirator or SCBA where large quantities are released, and the exposure level is unknown or where an oxygen-deficient atmosphere may exist.

Eye: Safety glasses with side shields, safety goggles or face shields.

**Precautions:**

- Direct addition of water to liquefied gas will cause flash vaporization resulting in an explosion (either immediately or delayed) known as a "boiling liquid, expanding vapor explosion (BLEVE)".
- Do not breathe vapors.
- Do not touch spilled liquefied NGL with bare skin to avoid frostbite/freeze burn.
- NGL is still highly flammable: must be kept from sparks, open flame, hot surfaces, and all sources of ignition and heat.
- The highly flammable vapors are heavier than air and may accumulate in low areas and /or spread along ground to distant ignition sources and flash back.

**Emergency Procedures:**

- Shut off leak/release source, if it can be done safely.
- Remove all sources of ignition.
- Isolate hazard area.
- Evacuate area of all unnecessary personnel.  
 Small spill: will evaporate.  
 Large spill: consider downwind evacuation of at least 800 meters (½ mile.)  
 If tank, rail car or tank truck is involved in a fire, ISOLATE and consider initial evacuation in all directions for 1600 meters (1 mile).
- Keep unnecessary and unprotected personnel from entering.
- Emergency personnel must wear appropriate personal protective equipment.
- Ventilate area of leak or spill.
- If possible, turn leaking NGL containers so that gas escapes instead of liquid.

**Containment and Clean-up:**

- Use non-sparking tools and equipment.
- Contain and recover liquid if it can be done safely: Collect spillage with an inert material (e.g., vermiculite, dry sand, earth), and place in metal container which can be grounded.
- Do not use combustible materials, such as sawdust, as absorbent.
- If a leak or spill has not ignited, use water spray to disperse the vapors or divert vapor cloud draft. Do not direct water at spill or source of leak.
- Prevent vapors or NGL from spreading to sewers, ventilation systems, confined spaces.
- Dispose of contents/container in accordance with applicable local, provincial/state, and federal regulations.
- Refer to Guide 115 of the Emergency Response Guidebook (Transport Canada/US Dept. of Transportation).

## 7. Handling and Storage

### Handling Precautions :

- Obtain special instructions before use.
- Do not handle until all safety precautions have been read and understood.
- Use only outdoors or in a well-ventilated area.
- Keep away from heat/sparks/open flames/hot surfaces – No smoking.
- Do not breathe vapors.
- Do not eat, drink or smoke when using this product.
- Use non-sparking tools and equipment.
- Ground/bond containers when transferring NGL Take measures against static discharges.
- Wear protective gloves/ protective clothing/ eye protection/ face protection when handling liquefied propane.

### Storage Precautions:

#### Locations

- Store in a cool, dry, well-ventilated location, away from any area of fire-hazard.
- Outside or detached storage is preferred.
- Storage and use areas should be No Smoking areas.
- Store locked-up.

#### Containers

- Keep container tightly closed.
- Do not pressurize, cut, weld, braze, solder, drill, grind or expose such containers to heat, sparks, flame, static electricity or other sources of ignition: they may explode and cause injury or death

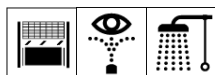
#### Other precautions

- Separate from incompatibles like oxidizers e.g. chlorine gas and oxygen.

**8. Exposure Controls / Personal Protection**

**EXPOSURE LIMITS**

	<b>Authority</b>	<b>15 MINS STEL or Ceiling</b>	<b>8-HOURS</b>
Ethane (CAS 74-84-0)	ACGIH TLV	Refer to "Minimal Oxygen Content" Appendix F of ACGIH*	
	Alberta, Ontario, BC	-	1000 ppm
Propane (CAS 74-98-6)	ACGIH: Identified as an asphyxiant Because L.P.G. may cause asphyxia at concentrations well above the lower explosive limit (LEL), the revised IDLH for L.P.G. is 2,000 ppm based strictly on safety considerations (i.e., being about 10% of the LELs of 1.9% for butane and 2.1% for propane).		
	Alberta, Ontario, BC	-	1000 ppm
Butane (all isomers)	Alberta	-	1000 ppm (2370 mg/m <sup>3</sup> )
	Ontario	-	800 ppm (1900 mg/m <sup>3</sup> )
	BC	750 ppm (1778 mg/m <sup>3</sup> )	600 ppm (1422 mg/m <sup>3</sup> )
Pentane (all isomers)	Alberta, Ontario	-	600 ppm (1770 mg/m <sup>3</sup> )
	BC	-	600 ppm
n-Hexane (CAS 110-54-3)	Alberta	-	50 ppm (176 mg/m <sup>3</sup> )
	BC	-	20 ppm (skin)
	Ontario	-	50 ppm (skin)
Hexane (All isomers except n-hexane)	Alberta	1000 ppm (3500 mg/m <sup>3</sup> )	500 ppm (1760 mg/m <sup>3</sup> )
	BC	-	200 ppm
	Ontario	1000 ppm	500 ppm
Heptane (All isomers)	Alberta	500 ppm (2050 mg/m <sup>3</sup> )	400 ppm (1640 mg/m <sup>3</sup> )
	BC, Ontario	500 ppm	400 ppm
Benzene (CAS 71-43-2)	Alberta	2.5 ppm (1.6 mg/m <sup>3</sup> ) – skin	0.5 ppm (8 mg/m <sup>3</sup> ) – skin
	Ontario, BC	2.5 ppm – skin	0.5 ppm – skin
Toluene (CAS 1-8-88-3)	Alberta	-	50 ppm (188 mg/m <sup>3</sup> )
	Ontario, BC	-	20 ppm



**ENGINEERING CONTROLS**

- Ventilate area where product is used, stored and/or handled to maintain airborne concentrations below the LEL and OEL, especially in confined spaces.
- Exhaust/ventilate to the outside.
- Ventilation equipment must be explosion proof.
- Ventilation system should be grounded and separate from other exhaust ventilation systems. Adequate make-up air must be provided.

**PERSONAL PROTECTIVE EQUIPMENT**



- Gloves:** Recommended: neoprene and nitrile;  
Not recommended: polyvinyl chloride PVC.  
Use insulating gloves when handling NGL
- Clothing:** Flame-retardant coverall e.g. Nomex, Proban. Protective apron and trousers worn over coveralls for handling liquefied propane.
- Respirator:** NIOSH Approved Supplied-Air Respirator or SCBA where large concentration is anticipated, and the exposure level is unknown or where an oxygen-deficient atmosphere may exist.
- Eye:** Safety glasses with side shields, safety goggles or face shields.

### 9. Physical and Chemical Properties

<b>Chemical Formula:</b> C <sub>3</sub> to C <sub>5</sub> hydrocarbons	<b>Molecular Weight:</b> Not available	<b>Chemical Family:</b> Hydrocarbon
<b>Appearance:</b> Colorless gas	<b>Odor:</b> Slight gasoline odor	<b>Odor Threshold:</b> Not available
<b>pH:</b> Not applicable	<b>Melting/Freezing Point:</b> Not available	<b>Boiling Point:</b> Approx. -1 to 1°C (30-34°F)
<b>Boiling Range:</b> Not available	<b>Vapor Density:</b> Not available	<b>Specific Gravity:</b> 0.480-0.590
<b>Flash Point:</b> <-35°C (-31°F)      Closed Cup	<b>Flammability:</b> Yes	<b>Evaporation Rate:</b> >1 (Butyl Acetate = 1)
<b>Upper-Lower Explosive Limit:</b> 2.1% (LEL), 10.0% (UEL)	<b>Reid's Vapor Pressure:</b> ~ 750-1000 kPa	<b>Percent Volatile:</b> 100 by volume
<b>Soluble in water (@20°C):</b> Slightly soluble	<b>Others:</b> Soluble in organic solvents such as alcohol, ether, chloroform	
<b>Partition Coefficient n-octanol/water:</b> Not available	<b>Auto-Ignition Temperature:</b> Not available	<b>Decomposition Temp.:</b> Not available
<b>Viscosity:</b> Not available	<b>Henry's Law Constant:</b> Not available	<b>Isobaric Heat Capacity:</b> Not available

### 10. Stability and Reactivity

<b>Reactivity:</b> Avoid incompatible materials: may react violently with oxidizers.
<b>Chemical Stability:</b> Stable under normal temperatures and pressures.
<b>Possibility of Hazardous Reactions:</b> Polymerization has not been reported to occur under normal temperature and pressure conditions.
<b>Conditions to Avoid:</b> Extreme temperatures and incompatible materials.
<b>Incompatible Materials:</b> <ul style="list-style-type: none"> <li>• <u>Oxidizers</u>: may react violently with oxidizers including chlorine gas and oxygen.</li> </ul>
<b>Hazardous Decomposition Products:</b> <ul style="list-style-type: none"> <li>• No decomposition if stored and applied as directed.</li> <li>• Combustion forms carbon monoxide, carbon dioxide, irritating and toxic fumes/gases.</li> </ul>



**11. Toxicological Information**

Exposure Route	Acute Health Effects	Symptoms of Exposure
<b>Inhalation:</b>	Effects on the Central Nervous system (CNS) may range from mild (respiratory depression) to severe effects (asphyxiation)	may range from rapid breathing, dizziness to respiratory arrest, loss of consciousness (narcosis) and death in extreme cases.
<b>Skin:</b>	In gas form: irritation.	-
	In liquid form: burn or frostbite.	numbness, cold or burning sensation, white, pale, greyish-yellow or red skin, blistering in severe cases.
<b>Eye:</b>	In gas form: irritation.	-
	In liquid form: burn or frostbite.	numbness, cold or burning sensation, blistering to blindness in severe cases.
<b>Ingestion:</b>	Not expected to be a route of exposure.	

**Chronic Exposure:**

**Inhalation:**  
Repeated or prolonged exposure may cause damage to the central nervous system (CNS), and the nervous system. Toluene in the NGL is listed as a reproductive toxin.

**Skin:**  
Not known to be a skin-sensitizer. Repeated and prolonged contact may cause dry, red, cracked skin (dermatitis). Benzene may cause cancer (leukemia).

**Medical Conditions Aggravated by Exposure:**  
Possibly asthma.

<b>Sensitization:</b> No	<b>Reproductive Toxicology:</b> Yes (toluene component)	<b>Teratogenicity:</b> No	<b>Mutagenicity:</b> No	<b>Irritancy:</b> Yes
<b>Carcinogenicity:</b> Yes (benzene component)		<b>Target Organs:</b> Single exposure: central nervous system (CNS), heart. Repeated exposure: no data available.		

**Lethality Tests:**

Chemical Name	CAS No.	LD50	LC50
Ethane	74-84-0	Not available	Rat, inhalation: 658 mg/L 4 hrs.
Propane	74-98-6	Not available	Rat, inhalation: 658 mg/L 4 hrs. Rat, inhalation: >800000ppm, 15-mins (oxygen was also added to maintain a level of ~20vol%)
Isobutane	75-28-5	Not available	Rat, inhalation: 658 mg/L 4 hrs. Rat, inhalation: 570,000 ppm/15 mins Mouse, inhalation: 52 mg/L/1 hr.
n-Butane	106-97-8	Not available	Rat, inhalation: 658 mg/L 4hr Mouse, inhalation: 680 mg/L/2 hr.
iso-Pentane	78-78-4	Not available	Rat, inhalation: 280 g/m <sup>3</sup> 4hr
n-Pentane	109-66-0	Rabbit, dermal: 3000 mg/kg Mouse, oral: 5000 mg/kg	Rat, inhalation: 364 mg/L 4hr

**Lethality Tests (continued):**

Chemical Name	CAS No.	LD50	LC50
Hexane	110-54-3	Adult rats 29700 mg/kg	Rat & Mice, inhalation: 48000 ppm/4 hr.
Heptane	142-82-5	Mouse, iv 222 mg/kg	Rat inhalation 103 g/cu m/4 hr.
Benzene	71-43-2	Rabbit, dermal:>8200 mg/kg Rat, oral: 810 mg/kg	Rat, inhalation: 44.66 mg/L 4 hr.
Toluene	108-88-3	Rabbit, dermal: 12000 mg/kg Rat, oral: 2600 mg/kg	Rat, inhalation: 12.5 mg/L 4 hrs.

## 12. Ecological Information

<b>Persistence &amp; Degradability:</b> Not expected to persist in the environment.	<b>Bioaccumulative Potential:</b> No.
<b>Mobility:</b> No data available.	<b>Other Adverse Effects:</b> See below.

**Terrestrial Fate:**

- Photolysis and hydrolysis are not expected to be important in soil.
- Not expected to bioaccumulate.
- The lighter, volatile components will evaporate leaving heavier components to undergo slow biodegradation in the soil.
- Spills may contaminate groundwater depending on the level of groundwater table and local geology.

**Aquatic Fate:**

- Spills will spread on the water surface and the majority from C2-C5 will evaporate. The heavier components C6, C7+ being only slightly soluble in water and with specific gravity <1, will remain/float on the water surface.
- Hydrolysis is not expected to be an important environmental fate process since the alkanes lack functional groups that hydrolyze under environmental conditions.

**Atmospheric Fate:**

- If released to air, ethane, propane, butanes (n-butane and isobutane) will exist solely as gas in the atmosphere.
- The Volatile Organic Compound (VOC) components such as ethane, propane, butanes, pentanes have the potential to partake in photochemical reactions to produce ozone pollutant.

Eco Toxicity Tests:

Chemical Name	CAS No.		
n-Pentane	109-66-0	Fish	Oncorhynchus mykiss LC50: 9.87 mg/L 96 hr. Pimephales promelas LC50: 11.59 mg/L 96 hrs. Lepomis macrochirus LC50: 9.99 mg/L 96 hrs.
		Invertebrate	Daphnia magna EC50: 9.74 mg/L 48 hrs.
iso-Pentane	78-78-4	Invertebrate	Daphnia magna EC50: 2.3 mg/L 48 hrs.
Benzene	71-43-2	Fish	Oncorhynchus mykiss LC50: 5.3 mg/L 96 hr. flow-through  Pimephales promelas LC50: 10.7-14.7 mg/L 96 hrs. flow-through  Lepomis macrochirus LC50: 22.4 mg/L 96 hrs. static Lepomis macrochirus LC50: 70000-142000 ug/L 96 hrs. static  Precilla reticulata LC50: 28.6 mg/L 96 hrs. static
		Algae	Pseudokirchneriella subcapitata EC50: 29 mg/L 72 hrs.
		Invertebrate	Daphnia magna EC50: 8.76-15.6 mg/L 48 hrs. static Daphnia magna EC50: 10 mg/L 48 hrs.
Toluene	108-88-3	Fish	Oncorhynchus mykiss LC50: 5.89-7.81 mg/L 96 hr. flow-through Oncorhynchus mykiss LC50: 14.1-17.16 mg/L 96 hr. static Oncorhynchus mykiss LC50: 5.8 mg/L 96 hr. semi-static  Pimephales promelas LC50: 15.22-19.05 mg/L 96 hrs. flow-through (1 day old) Pimephales promelas LC50: 12.6 mg/L 96 hrs. static  Lepomis macrochirus LC50: 11.0-15.0 mg/L 96 hrs. static Oryzias latipes LC50: 54 mg/L 96 hrs. static  Precilla reticulata LC50: 28.2 mg/L 96 hrs. semi-static Precilla reticulata LC50: 50.87-70.34 mg/L 96 hrs. static
		Algae	Pseudokirchneriella subcapitata EC50: >433 mg/L 72 hrs. Pseudokirchneriella subcapitata EC50: 12.5 mg/L 72 hrs. static
		Invertebrate	Daphnia magna EC50: 5.46-9.83 mg/L 48 hrs. static Daphnia magna EC50: 11.5 mg/L 48 hrs.

**13. Disposal Considerations**

**Waste Disposal:**

- Dispose of waste material at an approved waste treatment/disposal facility in accordance with applicable local, provincial, and federal regulations.
- Excess/waste NGL can be disposed by incineration in a waste gas incinerator or flare.
- NGL can also be reused as fuel for boilers and heaters.

**14. Transport Information**

**TDG (CANADA) CLASSIFICATION**

**PROPER SHIPPING NAME:** Liquefied Petroleum Gas  
**CLASS:** 2.1 **UN NUMBER:** UN1075  
**PACKING GROUP:** None **LABEL/PLACARD:**



If the main components are C3 and C4

OR

**PROPER SHIPPING NAME:** Hydrocarbon Gas Mixture, Liquefied, N.O.S.  
**CLASS:** 2.1 **UN NUMBER:** UN1965  
**PACKING GROUP:** None **LABEL/PLACARD:**



s.p. 16: the technical name of at least one of the most dangerous substances that predominately contributes to the hazard(s) posed by the dangerous goods must be shown in parenthesis

**MARINE POLLUTANT:** Yes.

**15. Regulatory Information**

**CANADA**

	Methane	Ethane	Propane	iButane	nButane	iPentane	nPentane	nHexane
CAS	74-82-8	74-84-0	74-98-6	75-28-5	106-97-8	78-78-4	109-66-0	110-54-3
DSL	yes	yes	yes	yes	yes	yes	yes	yes
NPRI	no	no	yes	no	no	no	no	yes
E2	yes	yes	yes	yes	yes	yes	yes	no

	Benzene	Toluene	Xylene isomers
CAS	71-43-2	108-88-3	1330-20-7
DSL	yes	yes	yes
NPRI	yes	yes	yes
E2	yes	yes	yes

**16. Other Information**

**NFPA Hazard Rating:**  
Health 2, Flammability 4, Instability 0



Prepared for: Keyera Health and Safety  
Issue Date/ Revision No: August 31, 2015/ Revision #3

<b>Revisions:</b>	<b>Dates:</b>	<b>Main Changes</b>
• Original:	January 3, 2011	
• 1 <sup>st</sup> revision:	February 28, 2014	Reformat
• 2 <sup>nd</sup> revision:	June 30, 2015	Canada GHS format
• 3 <sup>rd</sup> revision	August 31, 2015	Changed emergency contact number

**Glossary**

- ACGIH** – American Conference of Governmental Industrial Hygiene
- DOT** – US Department of Transportation
- DSL** – Domestic Substance List (Canada)
- E2** – Environmental Emergencies (Canada)
- GHS** – Globally Harmonized System
- IARC** – International Agency for Research on Cancer
- IDLH** – Immediately Dangerous to Life and Health
- NIOSH** – National Institute for Occupational Safety & Health
- NPRI** – National Pollutant Release Inventory (Canada)
- NTP** – National Toxicology Program
- OSHA** – Occupational Safety & Health Administration of the US Dept of Labour
- PEL** – Permissible Exposure Limit
- SARA** – Superfund Amendments and Reauthorization Act of 1986
- STEL** – Short Term Exposure Limit
- TRI** – US Toxic Release Inventory
- TSCA** – Toxic Substance Control Act
- TWA** – Time Weighed Average

**Disclaimer of Expressed and Implied Warranties**

The information presented in the Safety Data Sheet is based on data believed to be accurate as of the date this Safety Data Sheet was prepared. However, neither Keyera nor its affiliates assumes any liability whatsoever for the accuracy or completeness of the information contained herein. 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.

~ End of Safety Data Sheet ~