



SAFETY DATA SHEET

1. Product and Company Identification

Product identifier	Compressed Natural Gas (CNG)
Other means of identification	Not available
Recommended use	Fuel
Recommended restrictions	None known.
Manufacturer information	Irving Oil Refining G.P. Box 1260 Saint John, NB E2L 4H6 CA Phone: (506) 202-2000 Refinery: (506) 202-3000 Emergency Phone: 1-800-424-9300 (CHEMTREC)
Supplier	See above.

2. Hazards Identification

Physical hazards	Flammable gases Gases under pressure	Category 1 Compressed gas
Health hazards	Not classified.	
Environmental hazards	Not classified.	
WHMIS 2015 defined hazards	Not classified	
Label elements		



Signal word	Danger
Hazard statement	Extremely flammable gas. Contains gas under pressure; may explode if heated.
Precautionary statement	
Prevention	Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
Response	Leaking gas fire: Do not extinguish, unless leak can be stopped safely. Eliminate all ignition sources if safe to do so.
Storage	Store in a well-ventilated place. Protect from sunlight. Store in a well-ventilated place.
Disposal	Dispose of waste and residues in accordance with local authority requirements.
WHMIS 2015: Health Hazard(s) not otherwise classified (HHNOC)	None known
WHMIS 2015: Physical Hazard(s) not otherwise classified (PHNOC)	None known
Hazard(s) not otherwise classified (HNOC)	None known.
Supplemental information	None.

3. Composition/Information on Ingredients

Mixture

Chemical name	Common name and synonyms	CAS number	%
Natural Gas, Dried		68410-63-9	100

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First Aid Measures

Inhalation	If symptoms develop move victim to fresh air. If symptoms persist, obtain medical attention.
Skin contact	Flush with cool water. Remove contact lenses, if applicable, and continue flushing. Obtain medical attention if irritation persists.

Eye contact	Flush with cool water. Remove contact lenses, if applicable, and continue flushing. Obtain medical attention if irritation persists.
Ingestion	Not a normal route of exposure as this product is a gas at room temperature and pressure.
Most important symptoms/effects, acute and delayed	Direct contact with eyes may cause temporary irritation.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Treat patient symptomatically.
General information	Keep away from sources of ignition. No smoking. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Avoid contact with eyes and skin. Wear rubber gloves and safety glasses with side shields. Keep out of reach of children.

5. Fire Fighting Measures

Suitable extinguishing media	Stop the flow of gas. Dry chemical. Carbon dioxide.
Unsuitable extinguishing media	Do not use a solid water stream as it may scatter and spread fire. Water may be ineffective.
Specific hazards arising from the chemical	Contents under pressure. It is extremely dangerous to extinguish the fire without stopping the flow of gas. Gas and air will mix resulting in an explosion which may be more destructive than the original fire. Vapors are lighter than air and may travel along the ground to some distant source of ignition and flash back. May accumulate in confined spaces, resulting in an explosion and/or asphyxiation hazard.
Special protective equipment and precautions for firefighters	Firefighters should wear full protective clothing including self-contained breathing apparatus.
Fire-fighting equipment/instructions	In case of fire: Stop leak if safe to do so. Move containers from fire area if you can do so without risk. Do not direct water at source of leak or safety devices as icing may occur.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	Extremely flammable gas.
Hazardous combustion products	May include and are not limited to: Oxides of carbon. Oxides of sulfur. Oxides of nitrogen.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures	Keep out of low areas. Keep people away from and upwind of spill/leak. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Refer to attached safety data sheets and/or instructions for use. Extinguish all flames in the vicinity. Stop leak if you can do so without risk. If possible, turn leaking containers so that gas escapes rather than liquid. Isolate area until gas has dispersed. Use water spray to reduce vapors or divert vapor cloud drift. Prevent entry into waterways, sewer, basements or confined areas. For waste disposal, see section 13 of the SDS.
Environmental precautions	Do not discharge into lakes, streams, ponds or public waters.

7. Handling and Storage

Precautions for safe handling	Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. All equipment used when handling the product must be grounded. Avoid contact with eyes, skin and clothing. Wear appropriate personal protective equipment. Provide adequate ventilation. Observe good industrial hygiene practices. Wash hands before breaks and immediately after handling the product. When handling, do not eat, drink or smoke.
Conditions for safe storage, including any incompatibilities	Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in original tightly closed container. Store in a cool, dry place out of direct sunlight. Do not store at temperatures above 120°F (49°C). Store away from incompatible materials (see Section 10 of the SDS). Keep out of reach of children.

8. Exposure Controls/Personal Protection

Occupational exposure limits

Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

Components	Type	Value
Natural Gas, Dried (CAS 68410-63-9)	TWA	1000 ppm

Biological limit values

No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls

Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

Oxygen concentrations in work spaces must not be permitted to fall below 19%.

Individual protection measures, such as personal protective equipment

Eye/face protection

Face shield or chemical goggles.

Skin protection

Hand protection

Impervious gloves. Confirm with reputable supplier first.

Other

Where contact is likely, wear chemical-resistant gloves, a chemical suit, rubber boots, and chemical safety goggles plus a face shield.

Respiratory protection

For confined spaces, wear a NIOSH-approved (or equivalent) full-facepiece airline respirator in the positive pressure mode with emergency escape provisions.

Respirator should be selected by and used under the direction of a trained health and safety professional following requirements found in OSHA's respirator standard (29 CFR 1910.134), CAN/CSA-Z94.4 and ANSI's standard for respiratory protection (Z88.2).

Thermal hazards

Not applicable.

General hygiene considerations

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and immediately after handling the product. When using, do not eat, drink or smoke.

9. Physical and Chemical Properties

Appearance	Compressed gas.
Physical state	Gas.
Form	Compressed gas
Color	Colorless
Odor	Odorless
Odor threshold	Mercaptan - 1 ppb
pH	Not applicable
Melting point/freezing point	-296.68 °F (-182.6 °C) @ 1atm
Initial boiling point and boiling range	-258.52 °F (-161.4 °C) @ 1atm
Pour point	Not available.
Specific gravity	0.717 grams/L @ 0°C/0.871 grams/mL @ 60°F
Partition coefficient (n-octanol/water)	Not applicable
Flash point	-305.9 °F (-187.7 °C) Tag Closed Cup
Evaporation rate	Not applicable
Flammability (solid, gas)	Flammable gas.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	> 5 (estimated)
Flammability limit - upper (%)	< 15.4 (estimated)
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	522 kPa @ 37.8°C/100°F
Vapor density	0.56 (Air = 1)
Relative density	Not available.
Solubility(ies)	3.5% @ 17°C/62.6°F
Auto-ignition temperature	1000.4 °F (538 °C)
Decomposition temperature	Not available.

Viscosity	Not available.
Other information	
Flash point class	Flammable IA

10. Stability and Reactivity

Reactivity	May react with incompatible materials.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Chemical stability	Stable under recommended storage conditions.
Conditions to avoid	Avoid temperatures exceeding the flash point. Contact with incompatible materials. Extreme heat and freezing temperatures. Heat, open flames, static discharge, sparks and other ignition sources.
Incompatible materials	Oxidizers. Acids. Halogenated compounds.
Hazardous decomposition products	May include and are not limited to: Oxides of carbon. Oxides of sulphur. Oxides of nitrogen.

11. Toxicological Information

Routes of exposure	Eye, Skin contact, Inhalation, Ingestion.
Information on likely routes of exposure	
Ingestion	Not available.
Inhalation	No adverse effects due to inhalation are expected.
Skin contact	No adverse effects due to skin contact are expected.
Eye contact	Direct contact with eyes may cause temporary irritation.
Symptoms related to the physical, chemical and toxicological characteristics	Direct contact with eyes may cause temporary irritation.

Information on toxicological effects

Acute toxicity

Components	Species	Test Results
Natural Gas, Dried (CAS 68410-63-9)		
Acute		
<i>Inhalation</i>		
LC50	Rat	> 20000 ppm
<i>Oral</i>		
LD50	Not available	

Skin corrosion/irritation Prolonged skin contact may cause temporary irritation.

Exposure minutes Not available.

Erythema value Not available.

Oedema value Not available.

Serious eye damage/eye irritation Direct contact with eyes may cause temporary irritation.

Corneal opacity value Not available.

Iris lesion value Not available.

Conjunctival reddening value Not available.

Conjunctival oedema value Not available.

Recover days Not available.

Respiratory or skin sensitization

Respiratory sensitization Not available.

Skin sensitization This product is not expected to cause skin sensitization.

Mutagenicity Not classified.

Carcinogenicity This product is not considered to be a carcinogen by IARC, ACGIH, NTP or OSHA. See below.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Reproductive toxicity Not classified.

Teratogenicity Not classified.

Specific target organ toxicity - single exposure	Not classified.
Specific target organ toxicity - repeated exposure	Not classified.
Aspiration hazard	Not likely, due to the form of the product.
Chronic effects	Not available.

12. Ecological Information

Ecotoxicity	Not available.
Persistence and degradability	No data is available on the degradability of this product.
Bioaccumulative potential	Bioconcentration potential is low.
Mobility in soil	No data available.
Mobility in general	Not available.
Other adverse effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal Considerations

Disposal instructions	Dispose of contents/container in accordance with local/regional/national/international regulations.
Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products	Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport Information

Transport of Dangerous Goods (TDG) Proof of Classification Classification Method: Classified as per Part 2, Sections 2.1 – 2.8 of the Transportation of Dangerous Goods Regulations. If applicable, the technical name and the classification of the product will appear below.

U.S. Department of Transportation (DOT)

Basic shipping requirements:

UN number	UN1971
Proper shipping name	Natural gas, compressed (with high methane content)
Hazard class	2.1
Packaging exceptions	306

Transportation of Dangerous Goods (TDG - Canada)

Basic shipping requirements:

UN number	UN1971
Proper shipping name	NATURAL GAS, COMPRESSED with high methane content
Hazard class	2.1

DOT





15. Regulatory Information

Canadian federal regulations This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations (SOR/2015-17) and the SDS contains all the information required by the HPR.

Export Control List (CEPA 1999, Schedule 3)

Not listed.

Greenhouse Gases

Not listed.

Precursor Control Regulations

Not regulated.

WHMIS 2015 Exemptions Controlled

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - No
Delayed Hazard - No
Fire Hazard - Yes
Pressure Hazard - Yes
Reactivity Hazard - No

SARA 302 Extremely hazardous substance No

SARA 311/312 Hazardous chemical No

SARA 313 (TRI reporting)
Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

US state regulations See below

US - Minnesota Haz Subs: Listed substance

Natural Gas, Dried (CAS 68410-63-9) Listed.

US - Texas Effects Screening Levels: Listed substance

Natural Gas, Dried (CAS 68410-63-9) Listed.

US. Massachusetts RTK - Substance List

Natural Gas, Dried (CAS 68410-63-9)

US. New Jersey Worker and Community Right-to-Know Act

Not regulated.

US. Pennsylvania Worker and Community Right-to-Know Law

Natural Gas, Dried (CAS 68410-63-9)

US. Rhode Island RTK

Not regulated.

US. California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

Inventory status

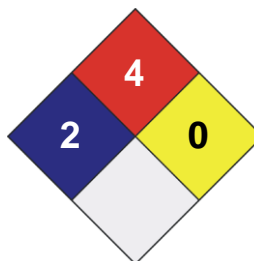
Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

16. Other Information

LEGEND	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0

HEALTH	/ 2
FLAMMABILITY	4
PHYSICAL HAZARD	0
PERSONAL PROTECTION	X



Disclaimer

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02

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Prepared by

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Other information

For an updated SDS, please contact the supplier/manufacturer listed on the first page of the document.