



SAFETY DATA SHEET

1. Product and Company Identification

Product identifier	E-85 Gasoline
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 liquids	Category 2
Health hazards	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2A
	Germ cell mutagenicity	Category 1
	Carcinogenicity	Category 1A
	Reproductive toxicity	Category 2
	Specific target organ toxicity, single exposure	Category 3 respiratory tract irritation
	Specific target organ toxicity, single exposure	Category 3 narcotic effects
	Specific target organ toxicity, repeated exposure	Category 2
Environmental hazards	Aspiration hazard	Category 1
WHMIS 2015 defined hazards	Not classified.	
Label elements	Not classified	



Signal word

Danger

Hazard statement

Highly flammable liquid and vapor.
Causes serious eye irritation.
Causes skin irritation.
May cause genetic defects.
May cause cancer.
Suspected of damaging fertility or the unborn child.
May be fatal if swallowed and enters airways.
May cause respiratory irritation.
May cause drowsiness or dizziness.
May cause damage to organs through prolonged or repeated exposure.

Precautionary statement

Prevention

Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge.
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Do not breathe mist or vapor.
Use only outdoors or in a well-ventilated area.
Wash thoroughly after handling.
Wear protective gloves/protective clothing/eye protection/face protection.

Response	In case of fire: Use appropriate media to extinguish. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention. Specific treatment (see information on this label). Wash contaminated clothing before reuse. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting. IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER if you feel unwell. IF exposed: Call a POISON CENTER or doctor/physician. Get medical advice/attention if you feel unwell.
Storage	Store in a well-ventilated place. Keep container tightly closed. Keep cool. Store locked up.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.
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	Not applicable.

3. Composition/Information on Ingredients

Mixture

Chemical name	Common name and synonyms	CAS number	%
Ethanol		64-17-5	68 - 71
Gasoline		8006-61-9	21 - 24
Xylene		1330-20-7	2 - 5
Toluene		108-88-3	0.5 - 1.5
Benzene		71-43-2	0.1 - 1
Hexane		110-54-3	0.1 - 1

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

Composition comments	*Contains a variety of aromatic and aliphatic hydrocarbons including: benzene, n-hexane, toluene and xylene Gasoline is a complex mixture of hydrocarbons. Its exact composition depends on the source of the crude oil from which it was produced and the refining methods used. Gasoline contains hundreds of individual organic chemicals. This section identifies only some of the well-known chemical constituents.
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4. First Aid Measures

Inhalation	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.
Skin contact	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse. Specific treatment (see information on this label).
Eye contact	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Ingestion	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting.
Most important symptoms/effects, acute and delayed	Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain. Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea. Prolonged exposure may cause chronic effects.
Indication of immediate medical attention and special treatment needed	Symptoms may be delayed.

General information IF exposed or concerned: Get medical advice/attention. 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. Take off all contaminated clothing immediately. Wash contaminated clothing before reuse. Keep away from sources of ignition. No smoking. 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.
Carbon dioxide. Dry chemical. Foam.

Unsuitable extinguishing media Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical Container may explode in heat of fire. Vapors may travel considerable distance to a source of ignition and flash back. During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters Firefighters should wear full protective clothing including self-contained breathing apparatus.

Fire-fighting equipment/instructions Move containers from fire area if you can do so without risk.

Specific methods Use standard firefighting procedures and consider the hazards of other involved materials.

General fire hazards Highly flammable liquid and vapor.

Hazardous combustion products May include and are not limited to: Oxides of carbon. Oxides of nitrogen. Polycyclic aromatic hydrocarbons (PAHs). Phenols. Aromatic hydrocarbons.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures Keep unnecessary personnel away. Keep out of low areas. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Do not breathe mist or vapor. Avoid inhalation of vapors or mists. 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 Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Take precautionary measures against static discharge. Use only non-sparking tools. Keep combustibles (wood, paper, oil, etc.) away from spilled material. Stop leak if you can do so without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Never return spills to original containers for re-use. Following product recovery, flush area with water. Clean surface thoroughly to remove residual contamination. For waste disposal, see section 13 of the SDS. Prevent entry into waterways, sewers, basements or confined areas.

Environmental precautions Do not discharge into lakes, streams, ponds or public waters.

7. Handling and Storage

Precautions for safe handling Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight.
Vapors may form explosive mixtures with air.
Take precautionary measures against static discharges.
Avoid contact with eyes, skin and clothing.
Wear appropriate personal protective equipment.
Do not breathe mist or vapor.
Provide adequate ventilation.
Avoid contact during pregnancy/while nursing.
Observe good industrial hygiene practices.
Wash hands before breaks and immediately after handling the product.
When using, do not eat, drink or smoke.

Conditions for safe storage, including any incompatibilities Store locked up.
Keep away from heat, open flames or other sources of ignition.
Prevent electrostatic charge build-up by using common bonding and grounding techniques.
Store away from incompatible materials (see Section 10 of the SDS).
Keep out of reach of children.
Shipping: Load at normal temperature (up to 38°C) and pressure.

8. Exposure Controls/Personal Protection

Occupational exposure limits

Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)

Components	Type	Value
Benzene (CAS 71-43-2)	STEL	8 mg/m3

Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)

Components	Type	Value
		2.5 ppm
	TWA	1.6 mg/m ³
		0.5 ppm
Ethanol (CAS 64-17-5)	TWA	1880 mg/m ³
		1000 ppm
Hexane (CAS 110-54-3)	TWA	176 mg/m ³
		50 ppm
Toluene (CAS 108-88-3)	TWA	188 mg/m ³
		50 ppm
Xylene (CAS 1330-20-7)	STEL	651 mg/m ³
		150 ppm
	TWA	434 mg/m ³
		100 ppm

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

Components	Type	Value
Benzene (CAS 71-43-2)	STEL	2.5 ppm
	TWA	0.5 ppm
Ethanol (CAS 64-17-5)	STEL	1000 ppm
Hexane (CAS 110-54-3)	TWA	20 ppm
Toluene (CAS 108-88-3)	TWA	20 ppm
Xylene (CAS 1330-20-7)	STEL	150 ppm
	TWA	100 ppm

Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act)

Components	Type	Value
Benzene (CAS 71-43-2)	STEL	2.5 ppm
	TWA	0.5 ppm
Ethanol (CAS 64-17-5)	STEL	1000 ppm
Hexane (CAS 110-54-3)	TWA	50 ppm
Toluene (CAS 108-88-3)	TWA	20 ppm
Xylene (CAS 1330-20-7)	STEL	150 ppm
	TWA	100 ppm

Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)

Components	Type	Value
Benzene (CAS 71-43-2)	STEL	2.5 ppm
	TWA	0.5 ppm
Ethanol (CAS 64-17-5)	STEL	1000 ppm
Hexane (CAS 110-54-3)	TWA	50 ppm
Toluene (CAS 108-88-3)	TWA	20 ppm
Xylene (CAS 1330-20-7)	STEL	150 ppm
	TWA	100 ppm

Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment)

Components	Type	Value
Benzene (CAS 71-43-2)	STEL	15.5 mg/m ³
		5 ppm
	TWA	3 mg/m ³
		1 ppm
Ethanol (CAS 64-17-5)	TWA	1880 mg/m ³
		1000 ppm

Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment)

Components	Type	Value
Gasoline (CAS 8006-61-9)	STEL	1480 mg/m3 500 ppm
	TWA	890 mg/m3 300 ppm
Hexane (CAS 110-54-3)	TWA	176 mg/m3 50 ppm
Toluene (CAS 108-88-3)	TWA	188 mg/m3 50 ppm
Xylene (CAS 1330-20-7)	STEL	651 mg/m3 150 ppm
	TWA	434 mg/m3 100 ppm

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

Components	Type	Value
Benzene (CAS 71-43-2)	STEL	5 ppm
	TWA	1 ppm

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Ethanol (CAS 64-17-5)	PEL	1900 mg/m3 1000 ppm
	PEL	1800 mg/m3 500 ppm
Xylene (CAS 1330-20-7)	PEL	435 mg/m3 100 ppm

US. OSHA Table Z-2 (29 CFR 1910.1000)

Components	Type	Value
Benzene (CAS 71-43-2)	Ceiling	25 ppm
	TWA	10 ppm
Toluene (CAS 108-88-3)	Ceiling	300 ppm
	TWA	200 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value
Benzene (CAS 71-43-2)	STEL	2.5 ppm
	TWA	0.5 ppm
Ethanol (CAS 64-17-5)	STEL	1000 ppm
Hexane (CAS 110-54-3)	TWA	50 ppm
Toluene (CAS 108-88-3)	TWA	20 ppm
Xylene (CAS 1330-20-7)	STEL	150 ppm
	TWA	100 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Benzene (CAS 71-43-2)	STEL	1 ppm
	TWA	0.1 ppm
Ethanol (CAS 64-17-5)	TWA	1900 mg/m3 1000 ppm
	TWA	180 mg/m3 50 ppm
Toluene (CAS 108-88-3)	STEL	560 mg/m3 150 ppm
	TWA	375 mg/m3 100 ppm
Xylene (CAS 1330-20-7)	STEL	655 mg/m3

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
		150 ppm
	TWA	435 mg/m ³
		100 ppm

Biological limit values

ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
Benzene (CAS 71-43-2)	25 µg/g	S-Phenylmercapturic acid	Creatinine in urine	*
Hexane (CAS 110-54-3)	0.4 mg/L	2,5-Hexanedione, without hydrolysis	Urine	*
Toluene (CAS 108-88-3)	0.3 mg/g	o-Cresol, with hydrolysis	Creatinine in urine	*
	0.03 mg/L	Toluene	Urine	*
	0.02 mg/L	Toluene	Blood	*
Xylene (CAS 1330-20-7)	1.5 g/g	Methylhippuric acids	Creatinine in urine	*

* - For sampling details, please see the source document.

Exposure guidelines

Canada - Alberta OELs: Skin designation

Benzene (CAS 71-43-2)	Can be absorbed through the skin.
Hexane (CAS 110-54-3)	Can be absorbed through the skin.
Toluene (CAS 108-88-3)	Can be absorbed through the skin.

Canada - British Columbia OELs: Skin designation

Benzene (CAS 71-43-2)	Can be absorbed through the skin.
Hexane (CAS 110-54-3)	Can be absorbed through the skin.

Canada - Manitoba OELs: Skin designation

Benzene (CAS 71-43-2)	Can be absorbed through the skin.
Hexane (CAS 110-54-3)	Can be absorbed through the skin.

Canada - Ontario OELs: Skin designation

Benzene (CAS 71-43-2)	Can be absorbed through the skin.
Hexane (CAS 110-54-3)	Can be absorbed through the skin.

Canada - Quebec OELs: Skin designation

Hexane (CAS 110-54-3)	Can be absorbed through the skin.
Toluene (CAS 108-88-3)	Can be absorbed through the skin.

Canada - Saskatchewan OELs: Skin designation

Hexane (CAS 110-54-3)	Can be absorbed through the skin.
Toluene (CAS 108-88-3)	Can be absorbed through the skin.

US ACGIH Threshold Limit Values: Skin designation

Benzene (CAS 71-43-2)	Can be absorbed through the skin.
Hexane (CAS 110-54-3)	Can be absorbed through the skin.

Appropriate engineering controls Ensure adequate ventilation.

Individual protection measures, such as personal protective equipment

Eye/face protection Face shield or chemical goggles.

Skin protection

Hand protection Viton™.

Other Wear appropriate chemical resistant clothing. Use of protective coveralls and long sleeves is recommended. If clothing or footwear becomes contaminated with the product, remove it and completely decontaminate it before re-use, or discard it.

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 or drink.

9. Physical and Chemical Properties

Appearance	Clear
Physical state	Liquid.
Form	Liquid.
Color	Clear to Pale yellow
Odor	Sweet, Slight Gasoline
Odor threshold	Not available.
pH	Not applicable
Melting point/freezing point	Not available.
Initial boiling point and boiling range	132.8 °F (56 °C)
Pour point	Not available.
Specific gravity	0.78 @ 15°C (60°F)
Partition coefficient (n-octanol/water)	Not available
Flash point	< 32.0 °F (< 0 °C) Closed Cup
Evaporation rate	Expected to be rapid.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	> 3.3 % (ethanol)
Flammability limit - upper (%)	< 19 % (ethanol)
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Relative density	Not available.
Solubility(ies)	Not available.
Auto-ignition temperature	685.4 - 797 °F (363 - 425 °C) (ethanol)
Decomposition temperature	Not available.
Viscosity	Not available.

10. Stability and Reactivity

Reactivity	This product may react with strong oxidizing agents.
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. Heat, open flames, static discharge, sparks and other ignition sources.
Incompatible materials	Acids. Halogens. Peroxides. Oxidizers. Nitric acid. Perchlorates.
Hazardous decomposition products	May include and are not limited to: Oxides of carbon. Oxides of nitrogen. Aromatic hydrocarbons.

11. Toxicological Information

Routes of exposure	Eye, Skin contact, Skin absorption, Inhalation, Ingestion.
Information on likely routes of exposure	
Ingestion	May be fatal if swallowed and enters airways.
Inhalation	May cause irritation to the respiratory system. Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea. Prolonged inhalation may be harmful. May cause damage to organs by inhalation.
Skin contact	Causes skin irritation.
Eye contact	Causes serious eye irritation.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms may include stinging, tearing, redness, swelling, and blurred vision.
Skin irritation. May cause redness and pain.
Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

Information on toxicological effects

Acute toxicity May be fatal if swallowed and enters airways. Narcotic effects. May cause respiratory irritation.

Components	Species	Test Results
Benzene (CAS 71-43-2)		
Acute		
<i>Dermal</i>		
LD50	Guinea pig	> 8260 mg/kg, HSDB
	Guinea pig; Rabbit	> 9.4 ml/kg, 24 Hours, ECHA
<i>Inhalation</i>		
LC50	Mouse	9980 ppm, 7 Hours, ECHA
	Rat	43767 mg/m ³ , 4 Hours, ECHA 13700 ppm, 4 Hours, ECHA 10000 ppm, 7 Hours, HSDB 31.8 mg/l/4h, HSDB
<i>Oral</i>		
LD50	Mouse	4700 mg/kg, HSDB
	Rat	> 2000 mg/kg, ECHA 5970 mg/kg, ECHA 4700 mg/kg, HSDB 3306 mg/kg, HSDB
Ethanol (CAS 64-17-5)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	> 15800 mg/kg, SIDS initial assessment report
<i>Inhalation</i>		
LC50	Cat	85.4 mg/L, 4.5 Hours, ECHA 43.7 mg/L, 6 Hours, ECHA
	Mouse	> 60000 ppm, 60 Minutes, ECHA 79.4 mg/L, 134 Minutes, ECHA
	Rat	> 115.9 mg/L, 4 Hours, ECHA 31623 ppm, 4 Hours, HMIRA 20000 ppm, 10 Hours, HSDB 51.3 mg/L, 6 Hours, ECHA
<i>Oral</i>		
LD50	Dog	5.5 g/kg, HSDB
	Guinea pig	5600 mg/kg, HSDB
	Monkey	6000 mg/kg
	Mouse	10500 ml/kg, ECHA 3450 mg/kg, SAX
	Pig	> 5000 mg/kg, ECHA
	Rat	1187 - 2769 mg/kg, ECHA 12400 mg/kg, ECHA 10470 mg/kg, ECHA 7800 ml/kg, ECHA
Gasoline (CAS 8006-61-9)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	> 1900 mg/kg, 24 Hours 3750 mg/kg

Components	Species	Test Results
<i>Inhalation</i> LC50	Rat	> 4980 mg/m ³ , 4 Hours > 5 mg/L, 4 Hours 5.2 mg/l/4h
<i>Oral</i> LD50	Rat	13600 mg/kg 4820 mg/kg
Hexane (CAS 110-54-3)		
Acute <i>Dermal</i> LD50	Rabbit	> 2000 mg/kg, 4 Hours, ECHA > 5 ml/kg, 4 Hours, ECHA
<i>Inhalation</i> LC50	Mouse Rat	48000 ppm, 4 Hours, HSDB > 5000 ppm, 24 Hours, ECHA > 31.9 mg/L, 4 Hours, ECHA 73860 ppm, 4 Hours, ECHA 38500 mg/l/4h, HMIRA
<i>Oral</i> LD50	Rat	28710 mg/kg, RTECS 49 ml/kg, ECHA 43.5 ml/kg, ECHA 24 ml/kg, ECHA
Toluene (CAS 108-88-3)		
Acute <i>Dermal</i> LD50	Rabbit	> 5000 mg/kg, 24 Hours, ECHA 12124 mg/kg, HSDB 14.1 ml/kg, HSDB
<i>Inhalation</i> LC50	Mouse Rat	6405 - 7436 ppm, 6 Hours, ECHA 5320 ppm, 8 Hours, ECHA/HSDB 400 ppm, 24 Hours, HSDB 26700 ppm, 1 Hours, HSDB 12200 ppm, 2 Hours, HSDB 8000 ppm, 4 Hours, HSDB 5879 - 6281 ppm, 6 Hours, ECHA 30 mg/L, 4 Hours, ECHA 28.1 mg/L, 4 Hours, ECHA 25.7 mg/L, 4 Hours, ECHA
<i>Oral</i> LD50	Rat	> 5000 mg/kg, ECHA 5580 mg/kg, ECHA 2.6 g/kg, HSDB
Xylene (CAS 1330-20-7)		
Acute <i>Dermal</i> LD50	Rabbit	> 5000 ml/kg, 4 Hours, ECHA > 43 g/kg, HSDB 12126 mg/kg, 24 Hours, ECHA

Components	Species	Test Results
<i>Inhalation</i> LC50	Mouse	3907 ppm, 6 Hours, HSDB 3907 mg/L, 6 Hours, HSDB
	Rat	6700 ppm, 4 Hours, ECHA 6580 ppm, 4 Hours, ECHA 6350 ppm, 4 Hours, ECHA/HSDB 6247 ppm, 4 Hours, ECHA 5922 ppm, 4 Hours, ECHA
<i>Oral</i> LD50	Mouse	5627 mg/kg, ECHA/HSDB 5251 mg/kg, ECHA
	Rat	> 4000 mg/kg, ECHA 6670 mg/kg, HSDB 4300 mg/kg, ECHA/HSDB 3523 mg/kg 10 ml/kg, ECHA
Skin corrosion/irritation	Causes skin irritation.	
Exposure minutes	Not available.	
Erythema value	Not available.	
Oedema value	Not available.	
Serious eye damage/eye irritation	Causes serious eye 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	May cause genetic defects. Mutagenic effects were observed in somatic and reproductive cells of live animals (rats and mice) exposed to high oral doses of ethanol. The mutagenicity of benzene has been extensively studied in rats and mice using inhalation and oral exposure techniques. Positive results have been obtained for many tests including and not limited to chromosome aberrations, micronuclei, sister chromatid exchanges, point mutations, DNA adducts, DNA repair, DNA damage, aneuploidy and sperm head abnormalities.	
Carcinogenicity	May cause cancer. Exposure of rats and mice to benzene by inhalation or ingestion routes has caused cancer of the lymph system (lymphoma), the blood (leukemia), and the bone marrow (myeloma). It has also caused tumours of the liver, zymbal gland, mammary gland, lungs, thymus, nasal and oral cavities.	
ACGIH Carcinogens		
Benzene (CAS 71-43-2)	A1 Confirmed human carcinogen.	
Canada - Alberta OELs: Carcinogen category		
Benzene (CAS 71-43-2)	Confirmed human carcinogen.	
Canada - Manitoba OELs: carcinogenicity		
BENZENE (CAS 71-43-2)	Confirmed human carcinogen.	
ETHANOL (CAS 64-17-5)	Confirmed animal carcinogen with unknown relevance to humans.	
Canada - Quebec OELs: Carcinogen category		
Benzene (CAS 71-43-2)	Detected carcinogenic effect in humans.	
Gasoline (CAS 8006-61-9)	Detected carcinogenic effect in animals.	
IARC Monographs. Overall Evaluation of Carcinogenicity		
Benzene (CAS 71-43-2)	Volume 29, Supplement 7, Volume 100F 1 Carcinogenic to humans.	
Ethanol (CAS 64-17-5)	Volume 44, Volume 96, Volume 100E Volume 96, Volume 100E	

Gasoline (CAS 8006-61-9)

Toluene (CAS 108-88-3)

Xylene (CAS 1330-20-7)

Volume 45 - 2B Possibly carcinogenic to humans.

Volume 47, Volume 71 - 3 Not classifiable as to carcinogenicity to humans.

Volume 47, Volume 71 - 3 Not classifiable as to carcinogenicity to humans.

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

Benzene (CAS 71-43-2)

Ethanol (CAS 64-17-5)

US NTP Report on Carcinogens: Known carcinogen

Benzene (CAS 71-43-2)

Known To Be Human Carcinogen.

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

Benzene (CAS 71-43-2)

Cancer

Reproductive toxicity

Possible reproductive hazard. Components in this product have been shown to cause birth defects and reproductive disorders in laboratory animals. Suspected of damaging the unborn child. Suspected of damaging fertility.

Teratogenicity

Components in this product have been shown to cause birth defects and reproductive disorders in laboratory animals.

Xylene is considered fetotoxic in humans, based on observations of reduced fetal weight, delayed ossification and persistent behavioural effects in animal studies in the absence of maternal toxicity.

Toluene (benzene, methyl-) has caused fetotoxicity (reduced fetal weight), behavioural effects (effects on learning and memory) and hearing loss (in males). These effects have been observed in the offspring of rats exposed by inhalation to 1200 or 1800 ppm toluene. These effects were observed in the absence of maternal toxicity.

Animal studies demonstrate that ingestion of ethanol can cause embryotoxicity, teratogenicity and fetotoxicity in the presence of maternal toxicity.

Specific target organ toxicity - single exposure

Respiratory tract irritation. Narcotic effects.

Specific target organ toxicity - repeated exposure

May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard

May be fatal if swallowed and enters airways.

Chronic effects

Prolonged exposure may cause chronic effects.

Prolonged inhalation may be harmful.

May cause damage to organs through prolonged or repeated exposure.

Peripheral nerve damage has been observed following occupational exposure to hexane.

Prolonged or repeated overexposure can cause liver and kidney damage.

12. Ecological Information

Ecotoxicity

See below

Ecotoxicological data

Components

Species

Test Results

Benzene (CAS 71-43-2)

Algae

IC50

Algae

29 mg/L, 72 Hours

Crustacea

EC50

Daphnia

12.18 mg/L, 48 Hours

Aquatic

Crustacea

EC50

Water flea (Daphnia magna)

8.76 - 15.6 mg/L, 48 hours

Fish

LC50

Rainbow trout, donaldson trout (Oncorhynchus mykiss)

7.2 - 11.7 mg/L, 96 hours

Ethanol (CAS 64-17-5)

Crustacea

EC50

Daphnia

11744.5 mg/L, 48 Hours

Aquatic

Crustacea

EC50

Water flea (Daphnia magna)

7.7 - 11.2 mg/L, 48 hours

Fish

LC50

Fathead minnow (Pimephales promelas)

> 100 mg/L, 96 hours

Gasoline (CAS 8006-61-9)

Algae

IC50

Algae

4700 mg/L, 72 Hours

Hexane (CAS 110-54-3)

Aquatic

Fish

LC50

Fathead minnow (Pimephales promelas)

2.101 - 2.981 mg/L, 96 hours

Toluene (CAS 108-88-3)

Algae

IC50

Algae

433 mg/L, 72 Hours

Components	Species	Test Results	
Crustacea	EC50	Daphnia	7.645 mg/L, 48 Hours
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	5.46 - 9.83 mg/L, 48 hours
Fish	LC50	Coho salmon, silver salmon (Oncorhynchus kisutch)	8.11 mg/L, 96 hours
Xylene (CAS 1330-20-7)			
Aquatic			
Fish	LC50	Bluegill (Lepomis macrochirus)	7.711 - 9.591 mg/L, 96 hours
Persistence and degradability	No data is available on the degradability of this product.		
Bioaccumulative potential	No data available.		
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	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. This material and its container must be disposed of as hazardous waste. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. 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	Dispose of in accordance with local regulations. 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 UN3475
 Proper shipping name ETHANOL AND GASOLINE MIXTURE, with more than 10 per cent ethanol
 Hazard class 3
 Packing group II
 Special provisions 144, 177, IB2, T4, TP1
 Packaging exceptions 150

Transportation of Dangerous Goods (TDG - Canada)

Basic shipping requirements:

UN number UN3475
 Proper shipping name ETHANOL AND GASOLINE MIXTURE, with more than 10 per cent ethanol
 Hazard class 3
 Packing group II
 Special provisions 150

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.

Canada CEPA Schedule I: Listed substance

Benzene (CAS 71-43-2) Listed.

Canada DSL Challenge Substances: Listed substance

Hexane (CAS 110-54-3) Listed.

Canada NPRI VOCs with Additional Reporting Requirements: Mass reporting threshold/Identification Number

Benzene (CAS 71-43-2)	1 TONNES
Ethanol (CAS 64-17-5)	1 TONNES
Hexane (CAS 110-54-3)	1 TONNES
Toluene (CAS 108-88-3)	1 TONNES
Xylene (CAS 1330-20-7)	1 TONNES

Export Control List (CEPA 1999, Schedule 3)

Not listed.

Greenhouse Gases

Not listed.

Precursor Control Regulations

Toluene (CAS 108-88-3) Class B

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)

Benzene (CAS 71-43-2)	Listed.
Gasoline (CAS 8006-61-9)	Listed.
Hexane (CAS 110-54-3)	Listed.
Toluene (CAS 108-88-3)	Listed.
Xylene (CAS 1330-20-7)	Listed.

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

Benzene (CAS 71-43-2)	Cancer
	Central nervous system
	Blood
	Aspiration
	Skin
	Eye
	respiratory tract irritation
	Flammability

Superfund Amendments and Reauthorization Act of 1986 (SARA)

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

SARA 302 Extremely hazardous substance No

SARA 311/312 Hazardous chemical No

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
Xylene	1330-20-7	2 - 5
Toluene	108-88-3	0.5 - 1.5

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
Benzene	71-43-2	0.1 - 1

Other federal regulations**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Benzene (CAS 71-43-2)
Hexane (CAS 110-54-3)
Toluene (CAS 108-88-3)
Xylene (CAS 1330-20-7)

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

Not regulated.

Clean Water Act (CWA) Section 112(r) (40 CFR 68.130)

Hazardous substance
Priority pollutant
Toxic pollutant

US state regulations

See below

US - California Hazardous Substances (Director's): Listed substance

Benzene (CAS 71-43-2) Listed.
Ethanol (CAS 64-17-5) Listed.
Gasoline (CAS 8006-61-9) Listed.
Hexane (CAS 110-54-3) Listed.
Toluene (CAS 108-88-3) Listed.
Xylene (CAS 1330-20-7) Listed.

US - Illinois Chemical Safety Act: Listed substance

Benzene (CAS 71-43-2)
Ethanol (CAS 64-17-5)
Gasoline (CAS 8006-61-9)
Hexane (CAS 110-54-3)
Toluene (CAS 108-88-3)
Xylene (CAS 1330-20-7)

US - Louisiana Spill Reporting: Listed substance

Benzene (CAS 71-43-2) Listed.
Ethanol (CAS 64-17-5) Listed.
Gasoline (CAS 8006-61-9) Listed.
Hexane (CAS 110-54-3) Listed.
Toluene (CAS 108-88-3) Listed.
Xylene (CAS 1330-20-7) Listed.

US - Michigan Critical Materials Register: Parameter number

Benzene (CAS 71-43-2) BENZENE
Toluene (CAS 108-88-3) TOLUENE
Xylene (CAS 1330-20-7) XYLENE (ALL ISOMERS)

US - Minnesota Haz Subs: Listed substance

Benzene (CAS 71-43-2) Listed.
Ethanol (CAS 64-17-5) Listed.
Gasoline (CAS 8006-61-9) Listed.
Hexane (CAS 110-54-3) Listed.
Toluene (CAS 108-88-3) Listed.
Xylene (CAS 1330-20-7) Listed.

US - New Jersey RTK - Substances: Listed substance

Benzene (CAS 71-43-2)
Ethanol (CAS 64-17-5)
Gasoline (CAS 8006-61-9)
Hexane (CAS 110-54-3)
Toluene (CAS 108-88-3)
Xylene (CAS 1330-20-7)

US - North Carolina Toxic Air Pollutants: Listed substance

Benzene (CAS 71-43-2)
Hexane (CAS 110-54-3)
Toluene (CAS 108-88-3)
Xylene (CAS 1330-20-7)

US - Pennsylvania RTK - Hazardous Substances: Special hazard

Benzene (CAS 71-43-2)

US - Texas Effects Screening Levels: Listed substance

Benzene (CAS 71-43-2) Listed.
Ethanol (CAS 64-17-5) Listed.
Gasoline (CAS 8006-61-9) Listed.

Hexane (CAS 110-54-3) Listed.
 Toluene (CAS 108-88-3) Listed.
 Xylene (CAS 1330-20-7) Listed.

US - Washington Chemical of High Concern to Children: Listed substance

Benzene (CAS 71-43-2)
 Toluene (CAS 108-88-3)

US. Massachusetts RTK - Substance List

Benzene (CAS 71-43-2)
 Ethanol (CAS 64-17-5)
 Gasoline (CAS 8006-61-9)
 Hexane (CAS 110-54-3)
 Toluene (CAS 108-88-3)
 Xylene (CAS 1330-20-7)

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

Benzene (CAS 71-43-2)
 Gasoline (CAS 8006-61-9)
 Hexane (CAS 110-54-3)
 Toluene (CAS 108-88-3)
 Xylene (CAS 1330-20-7)

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

Benzene (CAS 71-43-2)
 Ethanol (CAS 64-17-5)
 Hexane (CAS 110-54-3)
 Toluene (CAS 108-88-3)
 Xylene (CAS 1330-20-7)

US. Rhode Island RTK

Benzene (CAS 71-43-2)
 Ethanol (CAS 64-17-5)
 Gasoline (CAS 8006-61-9)
 Hexane (CAS 110-54-3)
 Toluene (CAS 108-88-3)
 Xylene (CAS 1330-20-7)

US. California Proposition 65

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

Benzene (CAS 71-43-2) Listed: February 27, 1987
 Ethanol (CAS 64-17-5) Listed: April 29, 2011
 Xylene (CAS 1330-20-7) Listed: July 1, 1988

US - California Proposition 65 - CRT: Listed date/Developmental toxin

Benzene (CAS 71-43-2) Listed: December 26, 1997
 Ethanol (CAS 64-17-5) Listed: October 1, 1987
 Toluene (CAS 108-88-3) Listed: January 1, 1991

US - California Proposition 65 - CRT: Listed date/Male reproductive toxin

Benzene (CAS 71-43-2) Listed: December 26, 1997

Inventory status

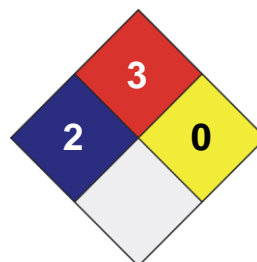
Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*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	3
PHYSICAL HAZARD	0
PERSONAL PROTECTION	X



Disclaimer

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11-October-2018

Version #

02

Effective date

03-April-2017

Prepared by

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Other information

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