



NFPA	HMIS (U.S.A.)	Rating	Protective Clothing	DOT (pictograms)
	Health Hazard (3*)	0 Insignificant		Not evaluated for transport Non évalué pour le transport
	Fire Hazard (3)	1 Slight		
	Reactivity (0)	2 Moderate		
	Personal Protection (H)	3 High		
		4 Extreme		

Section I. Chemical Product and Company Identification	
Product Name	GASOLINE - ETHANOL
Synonym	SuperClean, SuperClean 94 (Montreal), GASOHOL, Regular, Mid-Grade, Plus, WinterGas, RegularClean, PlusClean, marked or dyed gasoline, Super Premium (94 RO)
Manufacturer	PETRO-CANADA P.O. Box 2844 Calgary, Alberta T2P 3E3
Material Uses	Gasoline-Ethanol is used in spark ignition engines including motor vehicles, farm vehicles, inboard and outboard boat engines, small engines and recreational vehicles.
Code	GASOHOL
DSL	See Section 15
TSCA	See Section 15
In case of Emergency	Petro-Canada: 403-296-3000 Canutec Transportation: 613-996-6666 Poison Control Centre: Consult local telephone directory for emergency number(s).

Section II. Composition and Information on Ingredients					
Name	CAS #	% (V/V)	Exposure Limits (ACGIH)		
			TLV-TWA(8 h)	STEL	CEILING
Complex mixture of aliphatic and aromatic hydrocarbons (C4-C12)	86290-81-5	90-97	300 ppm (gasoline)	500 ppm (gasoline)	Not established
Ethanol	64-17-5	3-10	1000 ppm	Not established	Not established
Toluene	108-88-3	0-20	50 ppm	Not established	Not established
May contain benzene.	71-43-2	0-1.5	0.5 ppm	2.5 ppm	Not established
Manufacturer Recommendation	Not applicable				
Other Exposure Limits	Consult local, state, provincial or territory authorities for acceptable exposure limits.				

Section III. Hazards Identification.	
Potential Health Effects	Flammable liquid. Exercise caution when handling this material. May cause cancer. May cause heritable genetic effects (mutagenicity). Contact with this product may cause skin and eye irritation. This product contains an ingredient or ingredients, which have been shown to cause chronic toxic effects. Inhalation of this product may cause respiratory tract irritation and Central Nervous System (CNS) Depression, symptoms of which may include; weakness, dizziness, slurred speech, drowsiness, unconsciousness and in cases of severe overexposure; coma and death. Ingestion of this product may cause gastro-intestinal irritation. Aspiration of this product may result in severe irritation or burns to the respiratory tract. For more information refer to Section 11 of this MSDS.

Section IV. First Aid Measures	
Eye Contact	Avoid direct contact. Quickly and gently blot or brush chemical off the face. Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes or until the chemical is removed, while holding the eyelid(s) open. If a contact lens is present, DO NOT delay irrigation or attempt to remove the lens. Take care not to rinse contaminated water into the unaffected eye or onto the face. Immediately obtain medical attention.
Skin Contact	As quickly as possible, remove contaminated clothing, shoes and leather goods (e.g., watchbands, belts, etc.). Avoid direct contact. Wear chemical resistant protective clothing if necessary. Quickly and gently, blot or brush away excess chemical. Immediately wash with lukewarm, gently flowing water and non-abrasive soap for 15-20 minutes. Immediately obtain medical attention. Completely decontaminate clothing, shoes and leather goods before reuse or discard.
Inhalation	Take proper precautions to ensure your own safety before attempting rescue (e.g. wear appropriate protective equipment). If breathing has stopped, trained personnel should begin artificial respiration (AR) or, if the heart has stopped, immediately start cardiopulmonary resuscitation (CPR) or automated external defibrillation (AED). Quickly transport victim to an emergency care facility.

Ingestion	NEVER give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Have victim rinse mouth thoroughly with water. DO NOT INDUCE VOMITING. Have victim drink 60 to 240 mL (2 to 8 oz.) of water. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Have victim rinse mouth with water again. If breathing has stopped, trained personnel should begin artificial respiration (AR) or, if the heart has stopped, immediately start cardiopulmonary resuscitation (CPR) or automated external defibrillation (AED). Quickly transport victim to an emergency care facility.
Note to Physician	Not available

Section V. Fire-fighting Measures

Flammability	Flammable liquid.	Flammable Limits	LOWER: 1.4%; UPPER: 7.6% (NFPA)
Flash Points	-43°C (-45°F) (NFPA)	Auto-Ignition Temperature	Not available
Fire Hazards in Presence of Various Substances	Extremely flammable in presence of heat, open flames and sparks. This product can accumulate static charge and ignite. Vapours are heavier than air and may travel considerable distance to sources of ignition and flash back.	Explosion Hazards in Presence of Various Substances	Do not cut, weld, heat, drill or pressurize empty container. Containers may explode in heat of fire. Runoff to sewer may create fire or explosion hazard.
Products of Combustion	Carbon oxides (CO, CO ₂), nitrogen oxides (NO _x), aldehydes, ketones, hydrocarbons, aromatics, phenols, polynuclear aromatic hydrocarbons, smoke and irritating vapours as products of incomplete combustion. See Section 11 (Other Considerations) for information regarding the toxicity of the combustion products.		
Fire Fighting Media and Instructions	<p>NAERG2004, GUIDE 128, Flammable liquids (Non-polar/Water-immiscible). CAUTION: This product has a very low flash point: Use of water spray when fighting fire may be inefficient.</p> <p>If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also consider initial evacuation for 800 meters (1/2 mile) in all directions.</p> <p>SMALL FIRES: Dry chemical, CO₂, water spray or regular foam. LARGE FIRES: Water spray, fog or regular foam. Do not use straight streams. Move containers from fire area if you can do it without risk. Fires Involving Tanks or Car/Trailer Loads: Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.</p> <p>Cool containers with flooding quantities of water until well after fire is out. Withdraw immediately in case of rising sound from venting devices or any discoloration of tank. ALWAYS stay away from the ends of tanks. For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible withdraw from area and let fire burn. Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighters' protective clothing will only provide limited protection.</p>		

Section VI. Accidental Release Measures

Material Release or Spill	IN THE EVENT OF A LARGE SPILL CONSIDER THE FOLLOWING CONTROL MEASURES: Consult current National Emergency Response Guide Book (NAERG) for appropriate spill measures if necessary. Evacuate non-essential personnel. Extinguish all ignition sources. Stop leak if safe to do so. Ventilate area. Avoid breathing vapours or mists of material. Avoid contact with spilled material. Dike spilled material. Ensure clean-up personnel wear appropriate personal protective equipment. Use appropriate inert absorbent material to absorb spilled product. Do not use paper or other flammable materials to absorb product. Collect used absorbent for later disposal. Do not allow spilled materials to come into contact with incompatible materials (see Section 10). Avoid contaminating sewers, streams, rivers and other water courses with spilled material. Ground and bond all equipment used to clean up the spilled material, as it may be a static accumulator. Notify appropriate authorities immediately.
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Section VII. Handling and Storage

Handling	FLAMMABLE MATERIAL. Handle with care. Avoid contact with any sources of ignition, flames, heat, and sparks. Avoid skin contact. Avoid eye contact. Avoid inhalation of product vapours or mists. Do not ingest this product. Wear proper personal protective equipment (See Section 8). Avoid contact with any incompatible or reactive materials. Avoid confined spaces and areas with poor ventilation. Ensure all equipment is grounded/bonded. Exercise caution when washing/drying clothing contaminated with flammable materials. Empty containers may contain product residue. Do not pressurize, cut, heat, or weld empty containers. Do not reuse containers without commercial cleaning and/or reconditioning. Personnel who handle this material should practice good personal hygiene during and after handling to help prevent accidental ingestion of this product.
Storage	Store as flammable material. Store away from heat and sources of ignition. Store in dry, cool, well-ventilated area. Store away from incompatible and reactive materials (See section 5 and 10). Keep container tightly closed. Ensure the storage containers are grounded/bonded. Avoid direct sunlight.

Section VIII. Exposure Controls/Personal Protection

Engineering Controls	For normal application, special ventilation is not necessary. If user's operations generate vapours or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit. Make-up air should always be supplied to balance air removed by exhaust ventilation. Ensure that eyewash station and safety shower are close to work-station.
Personal Protection	- <i>The selection of personal protective equipment varies, depending upon conditions of use.</i>
Eyes	As a minimum, safety glasses with side shields should be worn when handling this material.
Body	If this material may come in contact with the body during handling and use, we recommend wearing appropriate protective clothing to prevent contact with the skin. (Contact your PPE provider for more information.)
Respiratory	A NIOSH-approved air-purifying respirator with an organic vapour cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air-purifying respirators is limited. Use a positive-pressure, air-supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstances where air-purifying respirators may not provide adequate protection.
Hands	If this material may come in contact with the hands during handling and use, we recommend wearing gloves of the following material(s): nitrile, neoprene, fluoro-elastomer. Consult your PPE provider for breakthrough times and the specific glove that is best for you based on your use patterns. It should be realized that eventually any material regardless of their imperviousness, will get permeated by chemicals. Therefore, protective gloves should be regularly checked for wear and tear. At the first signs of hardening and cracks, they should be changed.
Feet	Wear appropriate footwear to prevent product from coming in contact with feet and skin.

Section IX. Physical and Chemical Properties

Physical State and Appearance	Clear liquid.	Viscosity	0.6 cSt @ 40°C (104°F)
Colour	Clear, undyed liquid. May be dyed for tax exempt purposes.	Pour Point	Not available.
Odour	Hydrocarbon	Softening Point	Not applicable.
Odour Threshold	Not available.	Dropping Point	Not applicable.
Boiling Point	29-200°C (84-392°F)	Penetration	Not applicable.
Density	0.7kg/L @ 15°C (59°F)	Oil / Water Dist. Coeff.	Not available.
Vapour Density	3-4 (Air=1) (NFPA)	Ionicity (in water)	Not available.
Vapour Pressure	41 kPa to 107 kPa @ 15°C	Dispersion Properties	Not available.
Volatility	Volatile.	Solubility	Hydrocarbon components virtually insoluble. Ethyl alcohol is completely soluble in water.

Section X. Stability and Reactivity

Corrosivity	Not available.		
Stability	The product is stable under normal handling and storage conditions.	Hazardous Polymerization	Will not occur under normal working conditions.
Incompatible Substances / Conditions to Avoid	Reactive with oxidizing agents acids and alkali metals.	Decomposition Products	May release COx, NOx, aldehydes, ketones, hydrocarbons, aromatics, phenols, polynuclear aromatic hydrocarbons, smoke and irritating vapours when heated to decomposition.

Section XI. Toxicological Information

Routes of Entry	Skin contact, eye contact, inhalation and ingestion.		
Acute Lethality	Acute toxicity information is not available for the product as a whole, therefore, data for some of the ingredients is provided below: <u>Gasoline (86290-81-5):</u> Acute oral toxicity (LD50): 13600 mg/kg (rat). Acute dermal toxicity (LD50): >5000 mg/kg (rabbit). <u>Ethanol (64-17-5):</u> Acute oral toxicity (LD50): 3450 mg/kg (mouse). Acute inhalation toxicity (LC50): 31623 ppm/4h (rat).		

Toluene (108-88-3):

Acute oral toxicity (LD50): 636 mg/kg (rat).
 Acute dermal toxicity (LD50): 12,225 mg/kg (rabbit).
 Acute inhalation toxicity (LC50): 8800 ppm/4h (rat).

Benzene (71-43-2):

Acute oral toxicity (LD50): 930 mg/kg (rat).
 Acute dermal toxicity (LD50): >9400 mg/kg (rabbit).
 Acute inhalation toxicity (LC50): 13,229 ppm/4h (rat).

Chronic or Other Toxic Effects

Dermal Route:	This product contains a component (at \geq 1%) that can cause skin irritation. Therefore, this product is considered to be a skin irritant. Prolonged or repeated contact may defat and dry skin, and cause dermatitis.
Inhalation Route:	Inhalation of this product may cause respiratory tract irritation. Inhalation of this product may cause Central Nervous System (CNS) Depression, symptoms of which may include; weakness, dizziness, slurred speech, drowsiness, unconsciousness and in cases of severe overexposure; coma and death.
Oral Route:	Ingestion of this product may cause gastro-intestinal irritation. Aspiration of this product may result in severe irritation or burns to the respiratory tract. Ingestion of this product may cause Central Nervous System (CNS) Depression, symptoms of which may include; weakness, dizziness, slurred speech, drowsiness, unconsciousness and in cases of severe overexposure; coma and death.
Eye Irritation/Inflammation:	This product contains a component (at \geq 1%) that can cause eye irritation. Therefore, this product is considered to be an eye irritant.
Immunotoxicity:	Not available.
Skin Sensitization:	Contact with this product is not expected to cause skin sensitization, based upon the available data and the known hazards of the components.
Respiratory Tract Sensitization:	Contact with this product is not expected to cause respiratory tract sensitization, based upon the available data and the known hazards of the components.
Mutagenic:	This product contains a component(s) at \geq 0.1% that has been shown to cause mutagenicity in laboratory tests. Therefore, this product is considered to be a mutagen. (Ethanol, Benzene).
Reproductive Toxicity:	This product is not known to contain any components at \geq 0.1% that have been shown to cause reproductive toxicity. Therefore, based upon the available data and the known hazards of the components, this product is not expected to be a reproductive toxin.
Teratogenicity/Embryotoxicity:	There is a wealth of information about the teratogenic hazards of Toluene in the literature; however, based upon professional judgement regarding the body of evidence, WHMIS classification as a teratogen is not warranted.
Carcinogenicity (ACGIH):	This product contains the following chemical(s) at \geq 0.1% that are listed as carcinogenic compounds. Therefore this product is considered to be carcinogenic. (Considered to be A1 by the ACGIH. Benzene, 71-43-2) (Considered to be A3 by the ACGIH. Gasoline, 86290-81-5)
Carcinogenicity (IARC):	This product contains the following chemical(s) at \geq 0.1% that are listed as carcinogenic compounds. Therefore this product is considered to be carcinogenic. (Considered to be carcinogenic to humans (group 1) by IARC. Benzene, 71-43-2) (Considered to be carcinogenic to humans (group 2B) by IARC. Gasoline, 86290-81-5)
Carcinogenicity (NTP):	This product contains the following chemical(s) at \geq 0.1% that are listed as carcinogenic compounds. Therefore this product is considered to be carcinogenic. (Known to be a human carcinogen according to NTP. Benzene, 71-43-2)
Carcinogenicity (IRIS):	This product contains the following chemical(s) at \geq 0.1% that are listed as carcinogenic compounds. Therefore this product is considered to be carcinogenic. (Considered to be carcinogenic by IRIS. Benzene, 71-43-2)
Carcinogenicity (OSHA):	This product contains the following chemical(s) at \geq 0.1% that are listed as carcinogenic compounds. Therefore this product is considered to be carcinogenic. (Considered to be carcinogenic by OSHA. Benzene, 71-43-2)

Other Considerations

Gasoline engine exhaust is possibly carcinogenic to humans (IARC Group 2B).

Section XII. Ecological Information

Environmental Fate Not available	Persistence/ Bioaccumulation Potential Not available
BOD5 and COD Not available.	Products of Biodegradation Not available.
Additional Remarks No additional remark.	

Section XIII. Disposal Considerations

Waste Disposal Spent/ used/ waste product may meet the requirements of a hazardous waste. Consult your local or regional authorities. Ensure that waste management processes are in compliance with government requirements and local disposal regulations.

Section XIV. Transport Information

DOT Classification Not evaluated.	Special Provisions for Transport Not applicable.
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Section XV. Regulatory Information

Other Regulations This product is acceptable for use under the provisions of WHMIS-CPR. All components of this formulation are listed on the CEPA-DSL (Domestic Substances List).

All components of this formulation are listed on the US EPA-TSCA Inventory.


All components of this product are on the European Inventory of Existing Commercial Chemical Substances (EINECS).

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

Please contact Product Safety for more information.

DSD/DPD (EEC) Not evaluated.	WHMIS (Canada) B-2, D-2A, D-2B
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ADR (Europe) (Pictograms)	NOT EVALUATED FOR EUROPEAN TRANSPORT NON ÉVALUÉ POUR LE TRANSPORT EUROPÉEN.
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TDG (Canada) (Pictograms)	
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Section XVI. Other Information

References Available upon request.
* Marque de commerce de Petro-Canada - Trademark

Glossary

ACGIH - American Conference of Governmental Industrial Hygienists	HCS - Hazardous Communication System
ADR - Agreement on Dangerous goods by Road (Europe)	HMIS - Hazardous Material Information System
ASTM - American Society for Testing and Materials	IARC - International Agency for Research on Cancer
BOD5 - Biological Oxygen Demand in 5 days	IRIS - Integrated Risk Information System
CAS - Chemical Abstract Services	LD50/LC50 - Lethal Dose/Concentration kill 50%
CEPA - Canadian Environmental Protection Act	LDLo/LCLo - Lowest Published Lethal Dose/Concentration
CERCLA - Comprehensive Environmental Response, Compensation and Liability Act	NFPA - National Fire Prevention Association
CFR - Code of Federal Regulations	NIOSH - National Institute for Occupational Safety & Health
CHIP - Chemical Hazard Information and Packaging Approved Supply List	NPRI - National Pollutant Release Inventory
COD - Chemical Oxygen Demand	NSNR - New Substances Notification Regulations (Canada)
CPR - Controlled Products Regulations	NTP - National Toxicology Program
DOT - Department of Transportation (U.S.A.)	OSHA - Occupational Safety & Health Administration
DSCL - Dangerous Substances Classification and Labeling (Europe)	PEL - Permissible Exposure Limit
DSD/DPD - Dangerous Substance or Dangerous Preparations Directives (Europe)	RCRA - Resource Conservation and Recovery Act
DSL - Domestic Substance List (Canada)	SARA - Superfund Amendments and Reorganization Act
EEC/EU - European Economic Community/European Union	STEL - Short Term Exposure Limit (15 minutes)
EINECS - European Inventory of Existing Commercial Chemical Substances	TDG - Transportation Dangerous Goods (Canada)
EPCRA - Emergency Planning And Community Right-To-Know Act	TDL0/TCL0 - Lowest Published Toxic Dose/Concentration
FDA - Food and Drug Administration	TLV-TWA - Threshold Limit Value-Time Weighted Average
FIFRA - Federal Insecticide, Fungicide, and Rodenticide Act	TLm - Median Tolerance Limit
	TSCA - Toxic Substances Control Act
	USEPA - United States Environmental Protection Agency
	USP - United States Pharmacopoeia
	WHMIS - Workplace Hazardous Material Information System

For Copy of MSDS
Internet: www.petro-canada.ca/msds

Canada-wide: telephone: 1-800-668-0220; fax: 1-800-837-1228

For Product Safety Information: (905) 804-4752

Prepared by Product Safety - JDW on 11/30/2006.

Data entry by Product Safety - DSR.

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