

# Material Safety Data Sheet

## GASOLINE - ETHANOL

000003000613

Version 2.0

Revision Date 2015/10/23

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### SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : GASOLINE - ETHANOL

Synonyms : SuperClean, SuperClean 94 (Montreal), GASOHOL, Regular, Mid-Grade, Plus, WinterGas, RegularClean, PlusClean, marked or dyed gasoline, Super Premium (94 RO), E-10, Ultra 94, Ethanol blended gasoline

Product code : 101836, 100505, 100503, 100482, 102073, 101828, 101825, 102071, 101827, 100481, 101826, 101824, 100479, 100480, 101832, 101831, 101835, 100504, 101829

Manufacturer or supplier's details  
Petro-Canada  
P.O. Box 2844, 150 - 6th Avenue South-West  
Calgary Alberta T2P 3E3  
Canada

Emergency telephone number : Suncor Energy: +1 403-296-3000;  
Poison Control Centre: Consult local telephone directory for emergency number(s).

#### Recommended use of the chemical and restrictions on use

Recommended use : Gasoline-Ethanol is used in spark ignition engines including motor vehicles, farm vehicles, inboard and outboard boat engines, small engines and recreational vehicles.

Prepared by : Product Safety: +1 905-804-4752

### SECTION 2. HAZARDS IDENTIFICATION

#### Emergency Overview

CAUTION	
Appearance	Clear liquid.
Colour	Clear to slightly yellow, undyed liquid. May be dyed for taxation purposes.
Odour	Gasoline
Hazard Summary	Flammable liquid Causes eye and skin irritation. May cause cancer. May cause heritable genetic damage.

#### Potential Health Effects

Primary Routes of Entry : Eye contact  
Ingestion

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Inhalation  
Skin contact

Inhalation : Inhalation may cause central nervous system effects.  
May cause respiratory tract irritation.

Skin : Causes skin irritation.

Eyes : Causes eye irritation.

Ingestion : Ingestion of this material may cause irritation to the mouth,  
throat and gastro-intestinal tract.  
Aspiration hazard if swallowed - can enter lungs and cause  
damage.

Chronic Exposure : Chronic exposure to benzene may result in increased risk of  
leukemia and other blood disorders.

Aggravated Medical Condition : None known.

### Carcinogenicity:

#### IARC

Group 1: Carcinogenic to humans

Benzene 71-43-2

#### ACGIH

Confirmed human carcinogen

Benzene 71-43-2

Confirmed animal carcinogen with unknown relevance to humans

Gasoline 86290-81-5

Ethanol 64-17-5

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

### Hazardous components

Chemical Name	CAS-No.	Concentration (%)
gasoline	86290-81-5	90 - 97 %
toluene	108-88-3	10 - 20 %
ethanol	64-17-5	5 - 10 %
benzene	71-43-2	0.5 - 1.5 %



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### SECTION 4. FIRST AID MEASURES

- |   |  |
|---|--|
| If inhaled  | : Move to fresh air.<br>Artificial respiration and/or oxygen may be necessary.<br>Seek medical advice.   |
| In case of skin contact                                     | : In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.<br>Wash skin thoroughly with soap and water or use recognized skin cleanser.<br>Wash contaminated clothing before reuse.<br>Seek medical advice. |
| In case of eye contact                                      | : Remove contact lenses.<br>Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.<br>Obtain medical attention.  |
| If swallowed  | : Rinse mouth with water.<br>DO NOT induce vomiting unless directed to do so by a physician or poison control center.<br>Never give anything by mouth to an unconscious person.<br>Seek medical advice.  |
| Most important symptoms and effects, both acute and delayed | : First aider needs to protect himself.  |

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### SECTION 5. FIREFIGHTING MEASURES

- |   |  |
|---|--|
| Suitable extinguishing media                  | : Dry chemical<br>Carbon dioxide (CO <sub>2</sub> )<br>Alcohol-resistant foam<br>Water spray<br>Water fog.   |
| Unsuitable extinguishing media                | : Do NOT use water jet.  |
| Specific hazards during firefighting          | : Cool closed containers exposed to fire with water spray.   |
| Hazardous combustion products                 | : Carbon oxides (CO, CO <sub>2</sub> ), nitrogen oxides (NO <sub>x</sub> ), lead, aldehydes, ketones, phenols, polynuclear aromatic hydrocarbons, smoke and irritating vapours as products of incomplete combustion. |
| Further information                           | : Prevent fire extinguishing water from contaminating surface water or the ground water system.  |
| Special protective equipment for firefighters | : Wear self-contained breathing apparatus and full protective wear.  |

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Wear a positive-pressure supplied-air respirator with full facepiece.

### SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.  
Ensure adequate ventilation.  
Evacuate personnel to safe areas.  
Material can create slippery conditions.
- Environmental precautions : Do not allow uncontrolled discharge of product into the environment.
- Methods and materials for containment and cleaning up : Prevent further leakage or spillage if safe to do so.  
Remove all sources of ignition.  
Soak up with inert absorbent material.  
Non-sparking tools should be used.  
Ensure adequate ventilation.  
Contact the proper local authorities.

### SECTION 7. HANDLING AND STORAGE

- Advice on safe handling : For personal protection see section 8.  
Smoking, eating and drinking should be prohibited in the application area.  
Do not ingest.  
Avoid contact with skin, eyes and clothing.  
Use only with adequate ventilation.  
Keep away from heat and sources of ignition.  
Keep container closed when not in use.  
In case of insufficient ventilation, wear suitable respiratory equipment.  
Avoid inhalation of vapour or mist.  
Use explosion-proof equipment.  
Ensure all equipment is electrically grounded before beginning transfer operations.
- Conditions for safe storage : Store in original container.  
Containers which are opened must be carefully resealed and kept upright to prevent leakage.  
Keep in a dry, cool and well-ventilated place.  
Keep in properly labelled containers.  
To maintain product quality, do not store in heat or direct sunlight.  
Ensure the storage containers are grounded/bonded.

### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Components with workplace control parameters

Components	CAS-No.	Value type (Form of	Control parameters /	Basis
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		exposure)	Permissible concentration	
gasoline	86290-81-5	TWA	300 ppm	CA AB OEL
		STEL	500 ppm	CA AB OEL
		TWA	300 ppm	CA BC OEL
		STEL	500 ppm	CA BC OEL
		TWA	300 ppm	ACGIH
		STEL	500 ppm	ACGIH
toluene	108-88-3	TWA	50 ppm 188 mg/m <sup>3</sup>	CA AB OEL
		TWA	20 ppm	CA BC OEL
		TWAEV	50 ppm 188 mg/m <sup>3</sup>	CA QC OEL
		TWA	20 ppm	ACGIH
		TWA	1,000 ppm 1,880 mg/m <sup>3</sup>	CA AB OEL
		STEL	1,000 ppm	CA BC OEL
ethanol	64-17-5	TWAEV	1,000 ppm 1,880 mg/m <sup>3</sup>	CA QC OEL
		STEL	1,000 ppm	ACGIH
		TWA	0.5 ppm 1.6 mg/m <sup>3</sup>	CA AB OEL
		STEL	2.5 ppm 8 mg/m <sup>3</sup>	CA AB OEL
		TWA	0.5 ppm	CA BC OEL
		STEL	2.5 ppm	CA BC OEL
benzene	71-43-2	TWA	0.5 ppm 1.6 mg/m <sup>3</sup>	CA AB OEL
		STEL	2.5 ppm 8 mg/m <sup>3</sup>	CA AB OEL
		TWA	0.5 ppm	CA BC OEL
		STEL	2.5 ppm	CA BC OEL
		TWA	0.5 ppm	CA ON OEL
		STEL	2.5 ppm	CA ON OEL
		TWAEV	1 ppm 3 mg/m <sup>3</sup>	CA QC OEL
		STEV	5 ppm 15.5 mg/m <sup>3</sup>	CA QC OEL
		TWA	0.5 ppm	ACGIH
		STEL	2.5 ppm	ACGIH

**Engineering measures** : Use only in well-ventilated areas.  
Adequate ventilation to ensure that Occupational Exposure Limits are not exceeded.  
Use explosion-proof ventilation equipment.

### Personal protective equipment

**Respiratory protection** : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.  
Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

**Filter type** : 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

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circumstances where air-purifying respirators may not provide adequate protection.

### Hand protection

#### Material

: polyvinyl alcohol (PVA), Viton(R). 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.

### Remarks

: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

### Eye protection

: Wear face-shield and protective suit for abnormal processing problems.

### Skin and body protection

: Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.

### Protective measures

: Wash contaminated clothing before re-use.

### Hygiene measures

: Remove and wash contaminated clothing and gloves, including the inside, before re-use.  
Wash face, hands and any exposed skin thoroughly after handling.

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## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

### Appearance

: Clear liquid.

### Colour

: Clear to slightly yellow, undyed liquid. May be dyed for taxation purposes.

### Odour

: Gasoline

### Odour Threshold

: No data available

### pH

: No data available

### Pour point

: No data available

### Boiling point/boiling range

: 26 - 200 °C (79 - 392 °F)

### Flash point

: -43 °C (-45 °F)  
Method: Cleveland open cup

### Auto-Ignition Temperature

: No data available

### Evaporation rate

: No data available

### Flammability

: Extremely flammable in presence of open flames and sparks. May accumulate static electrical charge. Vapours are heavier

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	than air and may travel considerable distance to sources of ignition and flash back.
Upper explosion limit	: 7.6 %(V)
Lower explosion limit	: 1.4 %(V)
Vapour pressure	: 307 - 802 mmHg (15 °C / 59 °F)
Relative vapour density	: 3Air = 1
Relative density	: No data available
Density	: 0.7 - 0.78 kg/l (15 °C / 59 °F)
Solubility(ies)	
Water solubility	: Hydrocarbon components slightly soluble in water., Ethanol is soluble in water.
Partition coefficient: n-octanol/water	: No data available
Viscosity	
Viscosity, kinematic	: 0.6 cSt (40 °C / 104 °F)
Explosive properties	: 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.

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### SECTION 10. STABILITY AND REACTIVITY

Possibility of hazardous reactions	: Hazardous polymerisation does not occur. Stable under normal conditions.
Conditions to avoid	: Extremes of temperature and direct sunlight.
Incompatible materials	: Reactive with oxidising agents, acids and interhalogens.
Hazardous decomposition products	: May release COx, NOx, aldehydes, ketones, phenols, polynuclear aromatic hydrocarbons, smoke and irritating vapours when heated to decomposition.

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### SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure	: Eye contact Ingestion Inhalation Skin contact
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### Acute toxicity

#### Product:

Acute oral toxicity : Remarks: No data available  
Acute inhalation toxicity : Remarks: No data available  
Acute dermal toxicity : Remarks: No data available

#### Components:

##### **gasoline:**

Acute oral toxicity : LD50 Rat: 13,600 mg/kg,  
Acute dermal toxicity : LD50 Rabbit: > 5,000 mg/kg,

##### **toluene:**

Acute oral toxicity : LD50 Rat: 5,580 mg/kg,  
Acute inhalation toxicity : LC50 Rat: 7585 ppm  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Acute dermal toxicity : LD50 Rabbit: 12,125 mg/kg,

##### **ethanol:**

Acute oral toxicity : LD50 Rat: 7,060 mg/kg,  
Acute inhalation toxicity : LC50 Rat: > 32380 ppm  
Exposure time: 4 h  
Test atmosphere: vapour

##### **benzene:**

Acute oral toxicity : LD50 Rat: 2,990 mg/kg,  
Acute inhalation toxicity : LC50 Rat: 13700 ppm  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Acute dermal toxicity : LD50 Rabbit: > 8,240 mg/kg,

### Skin corrosion/irritation

#### Product:

Remarks: No data available

#### Components:

##### **gasoline:**

Result: Moderate skin irritant

##### **toluene:**



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Result: Moderate skin irritant

**ethanol:**

Result: Skin irritation

**benzene:**

Result: Moderate skin irritant

### Serious eye damage/eye irritation

**Product:**

Remarks: No data available

Remarks: There is no data available for this product.

**Components:**

**gasoline:**

Result: Mild eye irritation

**toluene:**

Result: Mild eye irritation

**ethanol:**

Result: Eye irritation

**benzene:**

Result: Moderate eye irritation

### Respiratory or skin sensitisation

No data available

### Germ cell mutagenicity

No data available

### Carcinogenicity

No data available

### Reproductive toxicity

No data available

### STOT - single exposure

No data available

### STOT - repeated exposure

No data available

### Aspiration toxicity

No data available

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### SECTION 12. ECOLOGICAL INFORMATION

#### Ecotoxicity

##### Product:

Toxicity to fish : Remarks: No data available

Toxicity to daphnia and other aquatic invertebrates : Remarks: No data available

Toxicity to algae : Remarks: No data available

Toxicity to bacteria : Remarks: No data available

#### Persistence and degradability

##### Product:

Biodegradability : Remarks: No data available

#### Bioaccumulative potential

No data available

#### Mobility in soil

No data available

#### Other adverse effects

No data available

##### Product:

Additional ecological information : No data available

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### SECTION 13. DISPOSAL CONSIDERATIONS

#### Disposal methods

Waste from residues : The product should not be allowed to enter drains, water courses or the soil.  
Offer surplus and non-recyclable solutions to a licensed disposal company.  
Waste must be classified and labelled prior to recycling or disposal.  
Send to a licensed waste management company.  
Dispose of as hazardous waste in compliance with local and national regulations.  
Dispose of product residue in accordance with the instructions of the person responsible for waste disposal.

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### SECTION 14. TRANSPORT INFORMATION

#### International Regulation

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### IATA-DGR

UN/ID No. : 1203  
Proper shipping name : Gasoline  
Class : 3  
Packing group : II  
Labels : 3  
Packing instruction (cargo aircraft) : 364

### IMDG-Code

UN number : 1203  
Proper shipping name : GASOLINE  
Class : 3  
Packing group : II  
Labels : 3  
EmS Code : F-E, S-E  
Marine pollutant : no

### Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

### TDG

UN number : 1203  
Proper shipping name : GASOLINE  
Class : 3  
Packing group : II  
Labels : 3  
ERG Code : 128  
Marine pollutant : no

### Special precautions for user

Not applicable

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## SECTION 15. REGULATORY INFORMATION

**WHMIS Classification** : B2: Flammable liquid  
D2A: Very Toxic Material Causing Other Toxic Effects  
D2B: Toxic Material Causing Other Toxic Effects

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

**The components of this product are reported in the following inventories:**

**DSL** : On the inventory, or in compliance with the inventory

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## SECTION 16. OTHER INFORMATION

For Copy of (M)SDS : Internet: [www.petro-canada.ca/msds](http://www.petro-canada.ca/msds)  
Canada-wide: telephone: 1-800-668-0220; fax: 1-800-837-1228  
For Product Safety Information: 1 905-804-4752

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Prepared by : Product Safety: +1 905-804-4752

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