

SAFETY DATA SHEET

GASOLINE - ETHANOL



000003000613

Version 3.0

Revision Date 2016/07/20

Print Date 2016/07/20

SECTION 1. 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 : 102751, 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

Appearance	Clear liquid.
Colour	Clear to slightly yellow, undyed liquid. May be dyed for taxation purposes.
Odour	Gasoline

GHS Classification

Flammable liquids : Category 1

Skin irritation : Category 2

Eye irritation : Category 2A

Germ cell mutagenicity : Category 1B

Carcinogenicity : Category 1A

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- Reproductive toxicity : Category 2
- Specific target organ toxicity : Category 3 (Central nervous system)
- single exposure
- Specific target organ toxicity : Category 1
- repeated exposure
- Aspiration hazard : Category 1

GHS label elements

- Hazard pictograms :
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- Signal word : Danger

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

- Precautionary statements : **Prevention:**
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Keep container tightly closed.
Ground and bond container and receiving equipment.
Use explosion-proof electrical/ ventilating/ lighting/ equipment.
Use non-sparking tools.
Take action to prevent static discharges.
Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
Wash skin thoroughly after handling.
Do not eat, drink or smoke when using this product.
Use only outdoors or in a well-ventilated area.
Wear protective gloves/ protective clothing/ eye protection/ face protection.
- Response:**
IF SWALLOWED: Immediately call a POISON CENTER/doctor.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue

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rinsing.
IF exposed or concerned: Get medical advice/ attention.
Do NOT induce vomiting.
If skin irritation occurs: Get medical advice/ attention.
If eye irritation persists: Get medical advice/ attention.
Take off contaminated clothing and wash it before reuse.
In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

Storage:

Store in a well-ventilated place. Keep container tightly closed.
Store in a well-ventilated place. Keep cool.
Store locked up.

Disposal:

Dispose of contents/ container to an approved waste disposal plant.

Potential Health Effects

- Primary Routes of Entry : Eye contact
Ingestion
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.

Other hazards

None known.

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

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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 %

SECTION 4. FIRST AID MEASURES

If inhaled : Move to fresh air.
Artificial respiration and/or oxygen may be necessary.
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.
Wash skin thoroughly with soap and water or use recognized skin cleanser.
Wash contaminated clothing before reuse.
Seek medical advice.

In case of eye contact : Remove contact lenses.
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Obtain medical attention.

If swallowed : Rinse mouth with water.
DO NOT induce vomiting unless directed to do so by a physician or poison control center.
Never give anything by mouth to an unconscious person.
Seek medical advice.

Most important symptoms and effects, both acute and delayed : First aider needs to protect himself.

SECTION 5. FIREFIGHTING MEASURES

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| Suitable extinguishing media | : Dry chemical
Carbon dioxide (CO ₂)
Alcohol-resistant foam
Water spray
Water fog. |
| Unsuitable extinguishing media | : Do NOT use water jet. |
| Specific hazards during fire-fighting | : Cool closed containers exposed to fire with water spray. |
| Hazardous combustion products | : Carbon oxides (CO, CO ₂), nitrogen oxides (NO _x), 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.
Wear a positive-pressure supplied-air respirator with full face-piece. |

SECTION 6. ACCIDENTAL RELEASE MEASURES

- | | |
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| 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

- | | |
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| 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. |
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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 exposure)	Control parameters / Permissible concentration	Basis
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/m3	CA AB OEL
		TWA	20 ppm	CA BC OEL
		TWAEV	50 ppm 188 mg/m3	CA QC OEL
		TWA	20 ppm	ACGIH
		TWA	1,000 ppm 1,880 mg/m3	CA AB OEL
ethanol	64-17-5	STEL	1,000 ppm	CA BC OEL
		TWAEV	1,000 ppm 1,880 mg/m3	CA QC OEL
		STEL	1,000 ppm	ACGIH
		TWA	0.5 ppm 1.6 mg/m3	CA AB OEL
benzene	71-43-2	STEL	2.5 ppm 8 mg/m3	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/m3	CA QC OEL
		STEV	5 ppm 15.5 mg/m3	CA QC OEL
		TWA	0.5 ppm	ACGIH
		STEL	2.5 ppm	ACGIH

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- 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 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 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	: 3 Air = 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 CO_x, NO_x, aldehydes, ketones, phenols, polynuclear aromatic hydrocarbons, smoke and irritating vapours when heated to decomposition.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Eye contact
Ingestion
Inhalation
Skin contact

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): > 3,750 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

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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

Serious eye damage/eye irritation

Product:

Remarks: No data available

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

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Toxicity to fish :
Remarks: No data available

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

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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

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.

SECTION 14. TRANSPORT INFORMATION

International Regulations

IATA-DGR

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

IMDG-Code

UN number : UN 1203
Proper shipping name : GASOLINE

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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

National Regulations

TDG

UN number : UN 1203
Proper shipping name : GASOLINE

Class : 3
Packing group : II
Labels : 3
ERG Code : 128
Marine pollutant : no

SECTION 15. REGULATORY INFORMATION

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

SECTION 16. OTHER INFORMATION

For Copy of (M)SDS : Internet: 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

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

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The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.