

MATERIAL SAFETY DATA SHEET

MSDS File Number: 2738

SECTION I - MATERIAL IDENTIFICATION AND USE			FLAMMABILITY	4	
Material Name / Product Identifier GASOLINE - ETHANOL BLENDED			REACTIVITY	0	
Manufacturer's Name Consumers' Co-operative Refineries Limited P.O. Box 260; 9th Avenue North Regina, SK S4P 3A1 Canada (306) 721-5353		Supplier's Name Federated Co-operatives Limited P. O. Box 1050; 401 - 22nd Street East Saskatoon, SK S7K 3M9 Canada (306) 244-3447		HEALTH (Acute)	1
Emergency Telephone Number (613) 996-6666 (Canutec)		Emergency Telephone Number		(Chronic)	Y
Chemical Name Gasoline		Chemical Family Petroleum Hydrocarbons		Mfg Reference Number	
Molecular Weight N.A.	Trade Name and Synonyms Refer to Hazardous Ingredients for Complete Listing		Material Use Motor Fuel.		Chemical Formula Mixture.

SECTION II - HAZARDOUS INGREDIENTS OF MATERIALS

Hazardous Ingredients	Approximate Concentration %	C.A.S. Numbers	Exposure Limits	LD50 / LC 50 (Species and Route)
Gasoline	90.0 - 100.0 %	86290-81-5	(ACGIH) TLV-TWA 300 ppm; STEL 500 ppm	(LD50) Oral (rat) 12,750 mg/kg
Benzene	< 1.5%	71-43-2	(ACGIH) TLV-TWA 0.5 ppm; STEL 2.5 ppm (Skin)	(LD50) Oral (rat) 3400 mg/kg; (LC50) Inhalation (rat) 16,000 ppm/4H
Ethanol	3.0 - 10.0 %	64-17-5	(ACGIH) TLV-TWA 1000 ppm	(LD50) Oral (rat) 7060 mg/kg; (LC50) Inhalation (rat) 8000 ppm/4H

TRADE NAMES 7 SYNONYMS: UNLEADED GASOLINE; GASOLINE; REGULAR GASOLINE, PREMIUM GASOLINE, PREMIUM UNLEADED GASOLINE; MID GRAD GASOLINE; PETROLEUM NAPHTHA, ALKYLATE; GASOLINE (EXPORT).

SECTION III - PHYSICAL DATA FOR MATERIAL

Physical State Liquid	Odour and Appearance Clear amber; typical gasoline odour	Odour Threshold (ppm) < 0.25	Specific Gravity 0.690 to 0.746
Vapour Pressure N/A	Vapor Density (Air = 1) 3 to 4	Evaporation Rate 4 (butyl acetate=1)	Boiling Point 25 - 200 C
Solubility in Water (20 C) partial	% Volatiles 100	pH N/A	Freezing / Pour Point N/A
		Coefficient of water / oil distribution N/A	

SECTION IV - FIRE AND EXPLOSION HAZARD OF MATERIAL

Conditions of Flammability Extremely flammable. May form flammable mixtures with air at temperatures at or above the flash point. Vapours are heavier than air and may travel to distant ignition sources and flash back.			
Means of Extinction Foam, dry chemical, water fog, carbon dioxide. Either allow fire to burn out under controlled conditions or extinguish using an approved extinguishing media.			
Special Procedures Fire fighting personnel should wear full protective equipment and self contained breathing apparatus. Contain spill. Cover spill with foam. Use water fog to cool fire exposed containers. Due to the danger of slop over, avoid spraying water directly into container. To avoid spreading of fire, do not point solid stream of water directly into fire. Approach fire from upwind to avoid hazardous vapours and toxic decomposition products. Fight fire from safe distance or protected location.			
Flash Point and Method < -40.0 C (Closed Cup)	Upper Explosion Limit 7.1	Lower Explosion Limit 1.2	Auto Ignition Temperature 450 C
Explosion Data - Sensitivity to Mechanical Impact N/A.		Explosion Data - Sensitivity to Static Discharge Vapour can be readily ignited by static discharge. Liquid can accumulate static charge by flow or agitation.	

SECTION V - REACTIVITY DATA

Chemical Stability Yes.	If no, under which conditions? Stable under normal conditons of use and storage.
Incompatibility to other substances Yes.	If so, which ones? Unstable with strong oxidizers (such as nitric acid, chlorine, peroxides, sulfuric acid, etc.).
Reactivity and under what conditions Heat will greatly increase fire and explosion hazards. Avoid strong oxidizing agents. Hazardous polymerization will not occur.	
Hazardous Decomposition and Combustion Products Carbon monoxide, carbon dioxide and sulfur oxides in case of incomplete combustion. Hydrocarbons, aromatics, oxides of nitrogen, lead and other trace elements, phenols, polynuclear aromatic hydrocarbons.	



Material Name / Product Identifier **GASOLINE - ETHANOL BLENDED**

SECTION VI - TOXICOLOGICAL PROPERTIES OF PRODUCT

Route of Entry **Skin Contact, Skin Absorption, Eye Contact, Inhalation, Ingestion.**

Effects of Acute Exposure to Product

Eye contact may be irritating but will not cause permanent damage. Prolonged skin contact may dry or defat skin (dermatitis). Vapours may irritate eyes, nose, throat and lungs; may cause headache, nausea, vomiting, dizziness, narcosis, unconsciousness and other central nervous system effects. Low oral toxicity; ingestion or vomiting may present an aspiration hazard.

Effects of Chronic Exposure to Product

Repeated or prolonged skin contact may cause dermatitis. Lab test studies with rats and mice indicate long term inhalation may cause kidney & liver damage. This product contains benzene which is a known human carcinogen; human health studies show that benzene may cause damage to the blood producing system as well as serious blood disorders, including leukemia; animal tests suggest prolonged or repeated overexposure may damage the embryo/fetus.

LD50 of Product See 'Hazardous Ingredients'.	Irritancy of Product Yes.	Exposure Limits of Product See 'Hazardous Ingredients'.
LC50 of Product Mouse 30,000 ppm (5 min).	Sensitization to Product N/A.	Synergistic materials N/A.

OTHER TOXICOLOGICAL EFFECTS: Carcinogenicity.

IARC has classified benzene as Classification Group 1 'carcinogenic to humans'.

SECTION VII - PREVENTATIVE MEASURES

Personal Protective Equipment

Wear long sleeves to minimize skin contact. Wear chemical resistant clothing if contact with skin or clothing is likely.

Gloves Nitrile.	Eye Protection safety glasses/chemical goggles if splashing is likely.
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Respiratory
Not normally required if used with adequate ventilation. Wear an appropriate NIOSH approved respirator if concentration levels exceed the safe exposure limits. If exposure levels are not known, wear an air supplied respirator (SCBA).

Engineering Controls
Use only in well ventilated areas. Use with explosion proof, mechanical ventilation in confined spaces or poorly ventilated areas. Lab samples should be handled with adequate ventilation (under a fume hood if necessary).

Leak and Spill Procedure
Ventilate area. Remove ignition sources. Contain (prevent entry into waterways). Prevent additional discharge if possible to do so without risk. Pump up using explosion proof pump. Soak up remainder with non-combustible absorbent material.

Waste Disposal
Recycle/reprocess, incinerate or dispose of product and contaminated materials in accordance with all government regulations. Take the necessary action to prevent or remedy the adverse effects of any spill.

Handling Procedures and Equipment
Transfer product using proper grounding and bonding procedures to avoid static accumulation. Keep away from heat and ignition sources. Avoid contact with skin, eyes or clothing. Wear chemical resistant clothing if contact with skin or clothing is likely. Avoid breathing vapours. Use in a well ventilated area. Wash thoroughly after handling. Launder contaminated clothing before reuse. Empty container may contain hazardous residue. DO NOT SIPHON BY MOUTH OR USE AS A CLEANING AGENT!

Storage Requirements
Store in a cool, well-ventilated area, away from oxidizing materials and out of direct sunlight. Keep container closed.

Special Shipping Information
TDG: GASOLINE Class 3 UN1203 PG II.

SECTION VIII - FIRST AID MEASURES

Skin
Wash skin with soap and running water. If irritation persists or develops, seek medical attention. Remove contaminated clothing and launder before reuse. Discard contaminated leather articles.

Eye
Immediately flush affected eyes with warm, running water for at least 15 minutes while holding eye lids open to ensure thorough flushing. Do not use an eye ointment. Seek medical attention.

Inhalation
Remove to fresh air. If not breathing, give CPR. If breathing is difficult, give oxygen. Keep at rest. Seek medical attention.

Ingestion
Do not induce vomiting. Rinse mouth out thoroughly. Give 1/2 glass milk. Keep victim at rest. Seek medical attention.

General Advice

N/A.

SECTION IX - PREPARATION OF M.S.D.S

W.H.M.I.S. Classification B-2, D-2(A). D-2(B).	N.F.C. Classification
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Sources Used
Available upon request.

Prepared By CCRL Safety Department	Phone Number (306) 721-0564	Date January 2, 2007
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