SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : DIESEL FUEL CONDITIONER

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 : Diesel fuel detergent. Flow improver.

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

SECTION 2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance	liquid
Colour	Pale yellow.
Odour	petroleum
Hazard Summary	Combustible liquid. Causes eye and skin irritation. May cause cancer. May cause teratogenicity/embryotoxicity

Potential Health Effects

Primary Routes of Entry : Eye contact
Skin contact
Inhalation

Target Organs : Central nervous system

Inhalation : May cause respiratory tract irritation.
Inhalation may cause central nervous system effects.
Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness.

Skin : Causes moderate skin irritation.

Eyes : Severe eye irritation

May cause permanent eye injury.

Ingestion : Harmful or fatal if swallowed.
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 : Repeated and prolonged exposure to solvents may cause brain and nervous system damage.

Aggravated Medical Condition : None known.

Carcinogenicity:

IARC Group 2B: Possibly carcinogenic to humans

Cumene	98-82-8
Ethylbenzene	100-41-4
Naphthalene	91-20-3

ACGIH Confirmed animal carcinogen with unknown relevance to humans

Ethylbenzene	100-41-4

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous components

Chemical Name	CAS-No.	Concentration (%)
distillates (petroleum), hydrotreated light	64742-47-8	30 - 60 %
Stoddard solvent	8052-41-3	15 - 40 %
solvent naphtha (petroleum), light arom.	64742-95-6	3 - 7 %
1,2,4-trimethylbenzene	95-63-6	1 - 5 %
ethylbenzene	100-41-4	0.1 - 1 %
xylene	1330-20-7	0.1 - 1 %
naphthalene	91-20-3	0.1 - 1 %
cumene	98-82-8	0.1 - 1 %
mesitylene	108-67-8	0.1 - 1 %
1,2,3-trimethylbenzene	526-73-8	0.1 - 1 %
solvent naphtha (petroleum), heavy arom.	64742-94-5	0.1 - 1 %
trimethylbenzene	25551-13-7	0.1 - 1 %

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 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

Suitable extinguishing media	:	Dry chemical Carbon dioxide (CO2) Water fog. Water spray
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, CO2), unidentified organic compounds, 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 when fire fighting in confined space. 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. Evacuate personnel to safe areas. Ensure adequate ventilation.
Environmental precautions	:	If the product contaminates rivers and lakes or drains inform respective authorities.
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. In case of insufficient ventilation, wear suitable respiratory equipment. Avoid contact with skin, eyes and clothing. Do not ingest. Do not enter places where used or stored until adequately ventilated. Keep away from heat and sources of ignition. Keep container closed when not in use. 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.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
distillates (petroleum), hydrotreated light	64742-47-8	TWA	200 mg/m3 (As total hydrocarbon vapour)	CA BC OEL
Stoddard solvent	8052-41-3	TWA	100 ppm	CA AB OEL

			572 mg/m3	
		TWA	290 mg/m3	CA BC OEL
		STEL	580 mg/m3	CA BC OEL
		TWAEV	100 ppm 525 mg/m3	CA QC OEL
		TWA	100 ppm	ACGIH
ethylbenzene	100-41-4	TWA	100 ppm 434 mg/m3	CA AB OEL
		STEL	125 ppm 543 mg/m3	CA AB OEL
		TWA	20 ppm	CA BC OEL
		STEV	125 ppm 543 mg/m3	CA QC OEL
		TWAEV	100 ppm 434 mg/m3	CA QC OEL
		TWA	20 ppm	ACGIH
xylene	1330-20-7	TWA	100 ppm	ACGIH
		STEL	150 ppm	ACGIH
		TWA	100 ppm 435 mg/m3	OSHA Z-1
		TWA	100 ppm	ACGIH
		STEL	150 ppm	ACGIH
naphthalene	91-20-3	TWA	10 ppm 52 mg/m3	CA AB OEL
		STEL	15 ppm 79 mg/m3	CA AB OEL
		TWA	10 ppm	CA BC OEL
		STEL	15 ppm	CA BC OEL
		TWAEV	10 ppm 52 mg/m3	CA QC OEL
		STEV	15 ppm 79 mg/m3	CA QC OEL
		TWA	10 ppm	ACGIH
		STEL	15 ppm	ACGIH
cumene	98-82-8	TWA	50 ppm 246 mg/m3	CA AB OEL
		TWA	25 ppm	CA BC OEL
		STEL	75 ppm	CA BC OEL
		TWAEV	50 ppm 246 mg/m3	CA QC OEL
		TWA	50 ppm	ACGIH
trimethylbenzene	25551-13-7	TWA	25 ppm 123 mg/m3	CA AB OEL
		TWAEV	25 ppm 123 mg/m3	CA QC OEL
		TWA	25 ppm	ACGIH

Engineering measures : Adequate ventilation to ensure that Occupational Exposure Limits are not exceeded.
Ensure that eyewash station and safety shower are proximal to the work-station location.
Use explosion-proof ventilation equipment.

Personal protective equipment

Respiratory protection : 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	:	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.
Hand protection		
Material	:	neoprene, nitrile, 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.
Eye protection	:	Safety glasses Do not wear contact lenses.
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.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	liquid
Colour	:	Pale yellow.
Odour	:	petroleum
Odour Threshold	:	No data available
pH	:	No data available
Pour point	:	No data available
Boiling point/boiling range	:	No data available
Flash point	:	43 °C (109 °F) Method: closed cup
Auto-Ignition Temperature	:	No data available
Evaporation rate	:	No data available
Flammability	:	Product may sustain a flame when source of ignition is applied. Avoid temperatures above flash point. Vapours are heavier than air and may travel considerable distance to

sources of ignition and flash back.

Upper explosion limit	:	No data available
Lower explosion limit	:	No data available
Vapour pressure	:	No data available
Relative vapour density	:	1
Relative density	:	0.804
Density	:	No data available
Solubility(ies)		
Water solubility	:	negligible
Partition coefficient: n-octanol/water	:	No data available
Viscosity		
Viscosity, kinematic	:	< 14 cSt (40 °C / 104 °F)
Explosive properties	:	Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

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.
Hazardous decomposition products	:	May release COx, unidentified organic compounds, smoke and irritating vapours when heated to decomposition.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure	:	Eye contact Skin contact Inhalation

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:

Stoddard solvent:

Acute oral toxicity	:	LD50 Rat: > 5,000 mg/kg,
Acute inhalation toxicity	:	LC50 Rat: > 5.5 mg/l Exposure time: 4 h
Acute dermal toxicity	:	LD50 Rabbit: > 3,000 mg/kg,

solvent naphtha (petroleum), light arom.:

Acute oral toxicity	:	LD50 Rat: 8,400 mg/kg,

1,2,4-trimethylbenzene:

Acute oral toxicity	:	LD50 Rat: 5,000 mg/kg,
Acute inhalation toxicity	:	LC50 Rat: 18 mg/l Exposure time: 4 h

ethylbenzene:

Acute oral toxicity	:	LD50 Rat: 3,500 mg/kg,
Acute inhalation toxicity	:	LC50 Rat: 4000 ppm Exposure time: 4 h Test atmosphere: vapour
Acute dermal toxicity	:	LD50 Rabbit: 15,380 mg/kg,

xylene:

Acute oral toxicity	:	LD50 Rat: 4,300 mg/kg,
Acute inhalation toxicity	:	LC50 Rat: 5000 ppm Exposure time: 4 h Test atmosphere: vapour
Acute dermal toxicity	:	LD50 Rabbit: > 1,700 mg/kg,

naphthalene:

Acute oral toxicity	:	LD50 Rat: > 2,000 mg/kg,
		LD50 Mouse: 533 mg/kg,
		LD50 Guinea pig: 1,200 mg/kg,
Acute inhalation toxicity	:	LC50 Rat: > 0.34 mg/l Exposure time: 1 h
Acute dermal toxicity	:	LD50 Rat: > 2,500 mg/kg,
		LD50 Rabbit: > 20,000 mg/kg,

cumene:

Acute oral toxicity	:	LD50 Rat: 1,400 mg/kg,
		LD50 Rat: 2,260 mg/kg,
Acute inhalation toxicity	:	LC50 Rat: 8000 ppm Exposure time: 4 h Test atmosphere: vapour
Acute dermal toxicity	:	LD50 Rabbit: 10,627 mg/kg,

mesitylene:

Acute oral toxicity	:	LD50 Rat: 5,000 mg/kg,
		LD50 Mouse: 7,000 mg/kg,
Acute inhalation toxicity	:	LC50 Rat: 24 mg/l Exposure time: 4 h

solvent naphtha (petroleum), heavy arom.:

Acute oral toxicity	:	LD50 Rat: > 5,000 mg/kg,
Acute inhalation toxicity	:	LC50 Rat: > 0.59 mg/l Exposure time: 4 h
Acute dermal toxicity	:	LD50 Rabbit: > 2,000 mg/kg,

Skin corrosion/irritation

Product:

Result: Moderate skin irritant

Components:

solvent naphtha (petroleum), light arom.:
Result: Moderate skin irritant

1,2,4-trimethylbenzene:
Result: Mild skin irritation

ethylbenzene:
Result: Moderate skin irritant

xylene:
Result: Skin irritation

naphthalene:

Result: Moderate skin irritant

cumene:
Result: Moderate skin irritant

mesitylene:
Result: Moderate skin irritant

1,2,3-trimethylbenzene:
Result: Mild skin irritation

Serious eye damage/eye irritation

Product:

Result: Risk of serious damage to eyes.

Result: Irritating to eyes.

Components:

solvent naphtha (petroleum), light arom.:
Result: Moderate eye irritation

1,2,4-trimethylbenzene:
Result: Mild eye irritation

ethylbenzene:
Result: Mild eye irritation

naphthalene:
Result: Moderate eye irritation

cumene:
Result: Mild eye irritation

mesitylene:
Result: Mild eye irritation

1,2,3-trimethylbenzene:
Result: Mild 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

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

Components:
naphthalene :

Toxicity to daphnia and other aquatic invertebrates	:	LC50 (Daphnia (water flea)): 2.16 mg/l Exposure time: 48 h EC50 (Daphnia (water flea)): 1.96 mg/l Exposure time: 48 h
Toxicity to algae	:	EC50 (Chlorella vulgaris (Fresh water algae)): 0.4 mg/l Exposure time: 72 h

Persistence and degradability

No data available

Bioaccumulative potential

Components:
naphthalene :

Partition coefficient: n-octanol/water	:	log Pow: 3.01 - 3.59

cumene :

Partition coefficient: n-octanol/water	:	log Pow: 3.66

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 Regulation

IATA-DGR

UN/ID No.	:	1268
Proper shipping name	:	Petroleum distillates, n.o.s.
Class	:	3
Packing group	:	III
Labels	:	3
Packing instruction (cargo aircraft)	:	366

IMDG-Code

UN number	:	1268
Proper shipping name	:	PETROLEUM DISTILLATES, N.O.S.
Class	:	3
Packing group	:	III
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	:	1268
Proper shipping name	:	PETROLEUM DISTILLATES, N.O.S.
Class	:	3
Packing group	:	III
Labels	:	3
ERG Code	:	128
Marine pollutant	:	no

Special precautions for user

Not applicable

SECTION 15. REGULATORY INFORMATION

WHMIS Classification : B3: Combustible 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
TSCA	All chemical substances in this product are either listed on the TSCA Inventory or are in compliance with a TSCA Inventory exemption.

SECTION 16. OTHER INFORMATION

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.