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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name	: SENTRON TM/MC LD 5000
Product code	: STN5LDCBE, STN5LDP20, STN5LDJ20, STN5LDIBC, STN5LDDRP, STN5LDDRM, STN5LDDCT, STN5LD, STN5LDBLK

1.2 Relevant identified uses of the substance or mixture and uses advised against

Use of the	:	SENTRON LD 5000 is a premium low ash natural gas engine
Substance/Mixture		oil with extended drain interval capability.

1.3 Details of the supplier of the safety data sheet

Manufacturer or supplier's details

Telephone	Petro-Canada Europe Lubricants Limited 3rd Floor, 1 Ashley Road Altrincham Cheshire WA14 2DT United Kingdom : +44 (0) 121 781 7264	
E-mail address of person	: EUSDS@hfsinclair.com	

responsible for the SDS

1.4 Emergency telephone number

Emergency telephone	:	CHEMTREC: +1-703-741-5970;
number		Poison Control Centre: Consult local telephone directory for
		emergency number(s).

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567)

Not a hazardous substance or mixture.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567)

No hazard pictogram, no signal word, no hazard statement(s), no precautionary statement(s) required



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2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Components

Chemical name	CAS-No.	Classification	Concentration
	EC-No.		(% w/w)
	Index-No.		
	Registration number		
Lubricating oils (petroleum), C20-	72623-85-9		70 - 90
50, hydrotreated neutral oil-based,	276-736-3		
high-viscosity; Baseoil —	649-481-00-4		
unspecified	01-2119555262-43-		
	0000		
Lubricating oils (petroleum), C20-	72623-87-1		1 - 5
50, hydrotreated neutral oil-based;	276-738-4		
Baseoil — unspecified	649-483-00-5		
	01-2119474889-13-		
	0001		
Phenol, dodecyl-, sulfurized,	68784-26-9	Aquatic Chronic 4;	1 - 2.5
carbonates, calcium salts,	701-251-5	H413	
overbased			
reaction mass of isomers of: C7-	125643-61-0	Aquatic Chronic 4;	1 - 2.5
9-alkyl 3-(3,5-di-tert-butyl-4-	406-040-9	H413	
hydroxyphenyl)propionate	607-530-00-7		
Benzenesulfonic acid, methyl-,	722503-68-6	Skin Sens. 1B; H317	1 - < 1.25
mono-C20-24-branched alkyl			
derivs., calcium salts			
For explanation of abbreviations se	e section 16		

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of 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.
+-	raati lubriaanta natra aanada aam/ada	Danas 0 /



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		Wash clothing before reuse. Seek medical advice.	
In case of eye contact	:	Remove contact lenses. Rinse immediately with plenty of wat for at least 15 minutes. Obtain medical attention.	ter, also under the eyelids,
If swallowed	:	Rinse mouth with water. DO NOT induce vomiting unless dire physician or poison control center. Never give anything by mouth to an Seek medical advice.	-
4.2 Most important symptoms a	nd e	effects, both acute and delayed	
Risks	:	First aider needs to protect himself.	
4.3 Indication of any immediate	me	dical attention and special treatmen	it needed
Treatment	:	Treat symptomatically.	
	: sur		
SECTION 5: Firefighting mea	: sur		
SECTION 5: Firefighting mea		es	
SECTION 5: Firefighting meas		es Use extinguishing measures that are	
SECTION 5: Firefighting mean 5.1 Extinguishing media Suitable extinguishing media Unsuitable extinguishing media	:	Tes Use extinguishing measures that are circumstances and the surrounding e No information available.	
SECTION 5: Firefighting mean 5.1 Extinguishing media Suitable extinguishing media Unsuitable extinguishing media	:	Tes Use extinguishing measures that are circumstances and the surrounding of No information available.	environment.
 SECTION 5: Firefighting mean 5.1 Extinguishing media Suitable extinguishing media Unsuitable extinguishing media 5.2 Special hazards arising from Specific hazards during 	: :	Tes Use extinguishing measures that are circumstances and the surrounding of No information available.	environment. ire with water spray. oxides (NOx), sulphur Ox), calcium oxides
 SECTION 5: Firefighting mean 5.1 Extinguishing media Suitable extinguishing media Unsuitable extinguishing media 5.2 Special hazards arising from Specific hazards during firefighting Hazardous combustion 	: :	Tes Use extinguishing measures that are circumstances and the surrounding of No information available. E substance or mixture Cool closed containers exposed to fi Carbon oxides (CO, CO2), nitrogen oxides (SOx), phosphorus oxides (P (CaOx), zinc oxides (ZnOx), smoke a	environment. ire with water spray. oxides (NOx), sulphur Ox), calcium oxides

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Internet: lubricants.petro-canada.com/sds Trademarks are owned or used under license.

: Use personal protective equipment.



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	Ensure adequate ventilation. Evacuate personnel to safe areas. Material can create slippery conditions Mark the contaminated area with signs unauthorized personnel. Only qualified personnel equipped with equipment may intervene.	s and prevent access to
6.2 Environmental precautions		
Environmental precautions	: Do not allow uncontrolled discharge of environment.	f product into the
6.3 Methods and material for cont	ainment and cleaning up	
	 Prevent further leakage or spillage if s 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. 	

6.4 Reference to other sections

For personal protection see section 8.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling	:	For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Use only with adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Avoid contact with skin, eyes and clothing. Do not ingest. Keep away from heat and sources of ignition. Keep container closed when not in use.
Advice on protection against fire and explosion	:	None known.
Hygiene measures	:	Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash face, hands and any

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage	:	Store in original container. Containers which are opened must
areas and containers		be carefully resealed and kept upright to prevent leakage.
		Keep in a dry, cool and well-ventilated place. Keep in properly

exposed skin thoroughly after handling.



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		labelled containers. To maintain produ in heat or direct sunlight.	ct quality, do not store
7.3 Specific end use(s) Specific use(s)	:	No data available	

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Engineering measures

No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Personal protective equipme	;IIL	
Eye/face protection	:	Wear face-shield and protective suit for abnormal processing problems.
Hand protection		
Material	:	neoprene, nitrile, polyvinyl alcohol (PVA), Viton [®] .
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.
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.
Respiratory protection	:	Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines. 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 filter
Protective measures	:	Wash contaminated clothing before re-use.

Personal protective equipment

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state : viscous liquid



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Colour	:	dark brown	
Odour	:	Mild petroleum oil like.	
Odour Threshold	:	No data available	
Pour point	:	-36 °C	
Boiling point/boiling range	:	No data available	
Flash point	:	272 °C Method: Cleveland open cup	
Fire Point	:	292 °C	
Auto-Ignition Temperature	:	No data available	
Evaporation rate	:	No data available	
Upper explosion limit / Upper flammability limit	:	No data available	
Lower explosion limit / Lower flammability limit	:	No data available	
Vapour pressure	:	No data available	
Relative vapour density	:	No data available	
Relative density	:	No data available	
Density	:	0.8787 kg/l (15 °C)	
Solubility(ies) Water solubility	:	insoluble	
Partition coefficient: n- octanol/water	:	No data available	



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Viscosity Viscosity, kinematic	:	124 cSt (40 °C)	
		13.5 cSt (100 °C)	
Flammability	:	Low fire hazard. This material must be will occur.	heated before ignition
Explosive properties	:	Do not pressurize, cut, weld, braze, so expose containers to heat or sources of	-

9.2 Other information

No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions	: Hazardous polymerisation does not occur. Stable under
	normal conditions.

10.4 Conditions to avoid

Conditions to avoid : No data available

10.5 Incompatible materials

Materials to avoid : Reactive with oxidising agents.

10.6 Hazardous decomposition products

Hazardous decomposition	:	May release COx, H2S, methacrylate monomers, alkyl
products		mercaptans, smoke and irritating vapours when heated to
		decomposition.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

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

Acute toxicity

Not classified due to lack of data.



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Product:			
Acute oral toxicity	:	Remarks: No data available	
Acute inhalation toxicity	:	Remarks: No data available	
Acute dermal toxicity	:	Remarks: No data available	
Components:			
	m), C	20-50, hydrotreated neutral oil-base	ed, high-viscosity;
Baseoil — unspecified: Acute oral toxicity	:	LD50 (Rat): > 5,000 mg/kg	
Acute inhalation toxicity	:	LC50 (Rat): > 5.2 mg/l Exposure time: 4 h Test atmosphere: dust/mist	
Acute dermal toxicity	:	LD50 (Rabbit): > 2,000 mg/kg	
Lubricating oils (petroleu unspecified:	m), C	20-50, hydrotreated neutral oil-base	ed; Baseoil —
Acute oral toxicity	:	LD50 (Rat): > 5,000 mg/kg	
Acute inhalation toxicity	:	LC50 (Rat): > 5.2 mg/l Exposure time: 4 h Test atmosphere: dust/mist	
Acute dermal toxicity	:	LD50 (Rabbit): > 2,000 mg/kg	
Skin corrosion/irritation			
Not classified due to lack of	data		
Product:			
Remarks	:	No data available	
Serious eye damage/eye i	rritat	ion	
Not classified due to lack of	data		
Product:			
Remarks	:	No data available	
Respiratory or skin sensi	tisati	on	
Skin sensitisation: Based or Respiratory sensitisation: N		ilable data, the classification criteria a assified due to lack of data.	re not met.
Product:	-		

Product:

Result: Not a skin sensitizer.

Germ cell mutagenicity

Not classified due to lack of data.



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Carcinogenicity		
Not classified due to lack of data. <u>Product:</u>		
Remarks :	All components listed in Annex VI to and contained in the product, have b less than 3% DMSO extractables as	een shown to contain
Reproductive toxicity		
Not classified due to lack of data.		
STOT - single exposure Not classified due to lack of data.		
STOT - repeated exposure		
Not classified due to lack of data.		
Aspiration toxicity		
Not classified due to lack of data.		
Aspiration toxicity		
Not classified due to lack of data.		

12.1 Toxicity

Product:			
Toxicity to fish	:	Remarks: No data available	
Toxicity to daphnia and other aquatic invertebrates	:	Remarks: No data available	
Toxicity to algae/aquatic plants	:	Remarks: No data available	
Toxicity to microorganisms	:	Remarks: No data available	
Ecotoxicology Assessment			
Chronic aquatic toxicity	:	This product has no known ecotoxicological effects. Remarks: Test data and bridging principles were applied when the ecotoxicity of the phenol, dodecyl-, branched was considered during determination of the environmental classification of this mixture.	
<u>Components:</u> Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based, high-viscosity;			

Baseoil — unspecified: Toxicity to fish

: NOEC (Fish): > 100 mg/l



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		Exposure time: 96 h	
Toxicity to daphnia and other aquatic invertebrates	:	NOEC (Daphnia (water flea)): > 100 mg/l Exposure time: 48 h	
Toxicity to algae/aquatic plants	:	NOEC (algae): > 100 mg/l Exposure time: 72 h	
	, C	20-50, hydrotreated neutral oil-based; Ba	seoil —
unspecified: Toxicity to fish	:	NOEC (Fish): > 100 mg/l Exposure time: 96 h	
Toxicity to daphnia and other aquatic invertebrates	:	NOEC (Daphnia (water flea)): > 100 mg/l Exposure time: 48 h	
Toxicity to algae/aquatic plants	:	NOEC (algae): > 100 mg/l Exposure time: 72 h	
2.2 Persistence and degradabili	ty		
Product:			
Biodegradability	:	Remarks: No data available	
2.3 Bioaccumulative potential No data available			
2.4 Mobility in soil No data available			
2.5 Results of PBT and vPvB as	se	ssment	
Product:			
Assessment	:	This substance/mixture contains no compo- to be either persistent, bioaccumulative an very persistent and very bioaccumulative (0.1% or higher.	d toxic (PBT), or
12.6 Other adverse effects			
No data available			
SECTION 13: Disposal consid	era	ations	
13.1 Waste treatment methods			
Product	:	The product should not be allowed to enter courses or the soil	r drains, water

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



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	Provide		
	disposal.		
	Send to a licensed waste managem	Send to a licensed waste management company.	
	Dispose of product residue in accore	dance with the instructions	

of the person responsible for waste disposal.

SECTION 14: Transport information

14.1 UN number or ID number		
IMDG	:	Not regulated as a dangerous good
ΙΑΤΑ	:	Not regulated as a dangerous good
14.2 UN proper shipping name		
IMDG	:	Not regulated as a dangerous good
ΙΑΤΑ	:	Not regulated as a dangerous good
14.3 Transport hazard class(es)		
IMDG	:	Not regulated as a dangerous good
ΙΑΤΑ	:	Not regulated as a dangerous good
14.4 Packing group		
IMDG	:	Not regulated as a dangerous good
IATA (Cargo)	:	Not regulated as a dangerous good
IATA (Passenger)	:	Not regulated as a dangerous good
14.5 Environmental hazards		
Not regulated as a dangerous good		

14.6 Special precautions for user

Not applicable

14.7 Maritime transport in bulk according to IMO instruments

Remarks	:	ADR: Not Regulated ADN: Not Regulated
		RID: Not Regulated

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Relevant EU provisions transposed through retained EU law

UK REACH Candidate list of substances of very high concern (SVHC) for Authorisation	:	Not applicable
The Persistent Organic Pollutants Regulations (retained	:	Not applicable



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Regulation (EU) 2019/1021 as am Britain)	nended for Great	
Regulation (EC) No 1005/2009 on deplete the ozone layer	substances that : Not applicable	
UK REACH List of substances subject to authorisation : Not applicable (Annex XIV)		
The components of this produc DSL :	t are reported in the following inventories On the inventory, or in compliance with the i	
TSCA :	All chemical substances in this product are e TSCA Inventory or are in compliance with a exemption.	

15.2 Chemical safety assessment

No Chemical Safety Assessment has been carried out for this mixture.

SECTION 16: Other information

Full text of H-Statements		
H317	:	May cause an allergic skin reaction.
H413	:	May cause long lasting harmful effects to aquatic life.
Full text of other abbreviations		
Aquatic Chronic	:	Long-term (chronic) aquatic hazard
Skin Sens.	:	Skin sensitisation

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN -Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx -Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx -Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO -International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of



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Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID -Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Further information

For Copy of SDS	 Internet: lubricants.petro-canada.com/sds Order Email for packed goods: pcepackage@hfsinclair.com Order Email for bulk: pceorders@hfsinclair.com Telephone: +31 88313 0365 / +31 88313 0366 For Product Safety Information: 1 905-491-0565

Prepared by

: Product Safety: +1 905-491-0565

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