according to Regulation (EC) No. 1907/2006

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

1.1 Product identifier

Product name : ENDURATEX ™ SYNTHETIC EP 220

Product code : ENTS220P20, ENTS220IBC, ENTS220DRM, ENTS220,

ENTS220DCT

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

Use of the Substance/Mixture

: Enduratex Synthetic EP 220 is a premium synthetic, extreme pressure lubricant designed for enclosed industrial gears and

pressure lubricant designed for enclosed industrial gears and bearings operating under severe load conditions and in wide

temperature extremes.

1.3 Details of the supplier of the safety data sheet

Manufacturer or supplier's details

Petro-Canada Europe Lubricants Limited

Wellington House, Starley Way

Birmingham International Park Solihull B37 7HB

United Kingdom

E-mail address of person responsible for the SDS

: EUSDS@petrocanadalsp.com

1.4 Emergency telephone number

Emergency telephone number : Petro-Canada Lubricants Inc.: +1 905-403-5770;

CHEMTREC Transport Emergency: 1-800-424-9300; 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)

Chronic aquatic toxicity, Category 3 H412: Harmful to aquatic life with long lasting ef-

fects.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard statements : H412 Harmful to aquatic life with long lasting effects.

Precautionary statements : Prevention:

P273 Avoid release to the environment.

Disposal:

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P501 Dispose of contents/ container to an approved waste disposal plant.

Additional Labelling:

EUH208 May produce an allergic reaction.

Contains: Amines, C10-14-tert-alkyl

2.3 Other hazards

None known.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
Amines, C10-14-tert-alkyl	701-175-2	Acute Tox. 4; H302 Acute Tox. 3; H311 Acute Tox. 2; H330 Skin irr/cor. 1B; H314 Skin Sens. 1A; H317 STOT SE 3; H335 Aquatic Acute 1; H400 Aquatic Chronic 1; H410	0.1 - 0.14
C16-18-(even numbered, saturated and unsaturated)-alkylamines	627-034-4	Acute Tox. 4; H302 Skin irr/cor. 1B; H314 Eye irr/damage 1; H318 STOT RE 2; H373 STOT SE 3; H335 Asp. Tox. 1; H304 Aquatic Acute 1; H400 Aquatic Chronic 1; H410	0.025 - 0.1

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.

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Wash skin thoroughly with soap and water or use recognized

skin cleanser.

Wash 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 physi-

cian or poison control center.

Never give anything by mouth to an unconscious person.

Seek medical advice.

4.2 Most important symptoms and effects, both acute and delayed

Risks : First aider needs to protect himself.

4.3 Indication of any immediate medical attention and special treatment needed

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Use extinguishing measures that are appropriate to local cir-

cumstances and the surrounding environment.

Unsuitable extinguishing

media

: No information available.

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire-

fighting

: Cool closed containers exposed to fire with water spray.

Hazardous combustion prod: :

ucts

Carbon oxides (CO, CO2), smoke and irritating vapours as

products of incomplete combustion.

5.3 Advice for firefighters

Further information : Prevent fire extinguishing water from contaminating surface

water or the ground water system.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Use personal protective equipment.

Ensure adequate ventilation.
Evacuate personnel to safe areas.
Material can create slippery conditions.

Mark the contaminated area with signs and prevent access to

unauthorized personnel.

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Only qualified personnel equipped with suitable protective

equipment may intervene.

6.2 Environmental precautions

Environmental precautions : Do not allow uncontrolled discharge of product into the envi-

ronment.

6.3 Methods and material for containment and cleaning up

Methods for 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.

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 ap-

plication 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, includ-

ing the inside, before re-use. Wash face, hands and any ex-

posed skin thoroughly after handling.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers

: 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.

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7.3 Specific end use(s)

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

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 equipment

Eye protection Wear face-shield and protective suit for abnormal processing

problems.

Hand protection

Material neoprene, nitrile, polyvinyl alcohol (PVA), Viton(R).

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 nec-

essary.

Skin and body protection Choose body protection in relation to its type, to the concen-

tration and amount of dangerous substances, and to the spe-

cific 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.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

viscous liquid Appearance

Colour Pale yellow.

Odour Mild petroleum

Odour Threshold No data available

No data available рΗ

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Pour point : $-48 \,^{\circ}\text{C} \, (-54 \,^{\circ}\text{F})$

Boiling point/boiling range

No data available

Flash point : 235 °C (455 °F)

Method: Cleveland open cup

Fire Point : 321 °C (610 °F)

Auto-Ignition Temperature : No data available Evaporation rate : No data available

Flammability (solid, gas) : Low fire hazard. This material must be heated before ignition

will occur.

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 : 0.8594 kg/l (15 °C / 59 °F)

Solubility(ies)

Water solubility : insoluble

Partition coefficient: n-

octanol/water

: No data available

Viscosity

Viscosity, kinematic : 226 cSt (40 °C / 104 °F)

26.20 cSt (100 °C / 212 °F)

Explosive properties : Do not pressurise, cut, weld, braze, solder, drill, grind or ex-

pose containers to heat or sources of ignition.

9.2 Other information

SECTION 10: Stability and reactivity

10.1 Reactivity

10.2 Chemical stability

10.3 Possibility of hazardous reactions

Hazardous reactions : Hazardous polymerisation does not occur.

Stable under normal conditions.

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10.4 Conditions to avoid

Conditions to avoid : No data available

10.5 Incompatible materials

Materials to avoid : Reactive with oxidising agents, acids, alkalis and reducing

agents.

10.6 Hazardous decomposition products

Hazardous decomposition

products

May release COx, NOx, SOx, POx, smoke and irritating va-

pours when heated to decomposition.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

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 : Assessment: The substance or mixture has no acute inhala-

tion toxicity

Remarks: No data available

Acute dermal toxicity : Remarks: No data available

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

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Reproductive toxicity

No data available

STOT - single exposure

No data available

STOT - repeated exposure

No data available

SECTION 12: Ecological information

12.1 Toxicity

Product:

Toxicity to fish : Remarks: No data available

Toxicity to daphnia and other : Remarks: No data available

aquatic invertebrates

: Remarks: No data available Toxicity to algae

Toxicity to microorganisms Remarks: No data available

Components:

Amines, C10-14-tert-alkyl:

M-Factor (Acute aquatic tox- : 1

icity)

M-Factor (Chronic aquatic

toxicity)

: 1

C16-18-(even numbered, saturated and unsaturated)-alkylamines:

M-Factor (Acute aquatic tox- : 10

icity)

M-Factor (Chronic aquatic

: 10

toxicity)

12.2 Persistence and degradability

Product:

: Remarks: No data available Biodegradability

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

Not relevant

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12.6 Other adverse effects

No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : The product should not be allowed to enter drains, water

courses or the soil.

Offer surplus and non-recyclable solutions to a licensed dis-

posal company.

Waste must be classified and labelled prior to recycling or

disposal.

Send to a licensed waste management company.

Dispose of product residue in accordance with the instructions

of the person responsible for waste disposal.

SECTION 14: Transport information

International Regulations

IATA-DGR

Not regulated as a dangerous good

IMDG-Code

Not regulated as a dangerous good

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

Water contaminating class

(Germany)

: WGK 1 slightly water endangering

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.

EINECS : On the inventory, or in compliance with the inventory

IECSC : On the inventory, or in compliance with the inventory

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15.2 Chemical safety assessment

SECTION 16: Other information

Full text of H-Statements

H302 : Harmful if swallowed.

H304 : May be fatal if swallowed and enters airways.

H311 : Toxic in contact with skin.

H314 : Causes severe skin burns and eye damage.

H317 : May cause an allergic skin reaction.

H318 : Causes serious eye damage.

H330 : Fatal if inhaled.

H335 : May cause respiratory irritation.

H373 : May cause damage to organs through prolonged or repeated

exposure.

H400 : Very toxic to aquatic life.

H410 : Very toxic to aquatic life with long lasting effects.

Full text of other abbreviations

Acute Tox. : Acute toxicity

Aquatic Acute : Acute aquatic toxicity
Aquatic Chronic : Chronic aquatic toxicity
Asp. Tox. : Aspiration hazard

Eye irr/damage : Serious eye damage/eye irritation

STOT RE : Specific target organ toxicity - repeated exposure STOT SE : Specific target organ toxicity - single exposure

Skin Sens. : Skin sensitisation
Skin irr/cor. : Skin corrosion/irritation

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways: ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AICS - Australian Inventory of Chemical Substances; 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 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, Evalua-

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tion, 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; 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

Europe, telephone: 00-800-7387-6000

For Product Safety Information: 1 905-491-0565

Prepared by : Product Safety: +1 905-491-0565

Classification of the mixture: Classification procedure:

Aquatic Chronic 3 H412 Calculation method

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.

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