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

1.1 Product identifier

Product name	: TURBOFLO TMMC R&O 150	
Product code	: TFRO150IBC, TFRO150P20, TFRO150DRR, TFRO150 TFRO150DCT, TFRO150, TFRO150BLK	DRM,

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

Use of the Sub- stance/Mixture	: Turboflo R&O are fluids formulated to have long service life and provide corrosion and oxidation resistance in a wide
Stance/Mixture	range of applications. Primarily recommended as circulating
	oil for various industrial machinery.

1.3 Details of the supplier of the safety data sheet

Manufacturer or supplier's details

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

responsible for the SDS

1.4 Emergency telephone number

Emergency telephone num-	:	CHEMTREC: +1-703-741-5970;
ber		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)



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

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 Remarks

: No hazardous ingredients

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 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 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.

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

Treatment : Treat symptomatically.



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.1 Extinguishing media		
Suitable extinguishing media	:	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media	:	No information available.
.2 Special hazards arising from	the	e 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), nitrogen oxides (NOx), sulphur oxides (SOx), smoke and irritating vapours as products of incomplete combustion.
.3 Advice for firefighters		
Further information	:	Prevent fire extinguishing water from contaminating surface

water or the ground water system.

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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. Only qualified personnel equipped with suitable protective equipment may intervene.
62	Environmental precautions	

6.2 Environmental precautions

Environmental precautions	:	Do not allow uncontrolled discharge of product into the envi- ronment. If the product contaminates rivers and lakes or drains inform respective authorities.
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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.



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6.4 Reference to other sections

For personal protection see section 8.

SECTION 7: Handling and stor	age
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. 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, ir	ncluding 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.
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 equipment

Eye/face protection

: Wear face-shield and protective suit for abnormal processing problems.

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Hand protection Material	:	neoprene, nitrile, polyvinyl alcohol (PVA),	Viton [®] .
Remarks	:	Chemical-resistant, impervious gloves cor approved standard should be worn at all ti chemical products if a risk assessment ind essary.	imes when handling
Skin and body protection	:	Choose body protection in relation to its ty tration and amount of dangerous substance cific work-place.	
tilation is provided exposures are with Respirator selection exposure levels, the		Use respiratory protection unless adequat tilation is provided or exposure assessment exposures are within recommended expose Respirator selection must be based on kn exposure levels, the hazards of the product ing limits of the selected respirator.	nt demonstrates that sure guidelines. own or anticipated
Filter type	:	organic vapour filter	
Protective measures	:	Wash contaminated clothing before re-use	Э.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	: viscous liquid
Colour	: Pale, straw-yellow.
Odour	: Mild petroleum oil like.
Odour Threshold	: No data available
Pour point	: -30 °C
Boiling point/boiling range	: No data available
Flash point	: 269 °C Method: Cleveland open cup
Fire Point	: 297 °C
Auto-Ignition Temperature	: No data available

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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	:	0.8732 kg/l (15 °C)	
Solubility(ies) Water solubility	:	insoluble	
Partition coefficient: n- octanol/water	:	No data available	
Viscosity Viscosity, kinematic	:	137.1 cSt (40 °C)	
		14.2 cSt (100 °C)	
Flammability	:	Low fire hazard. This material must be h will occur.	neated before ignition
Explosive properties	:	Do not pressurize, cut, weld, braze, solo pose containers to heat or sources of ig	
9.2 Other information			

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. Internet: www.petrocanadalubricants.com/sds Trademarks are owned or used under license.



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10.3 Possibility of hazardous	reactio	ons	
Hazardous reactions	:	Hazardous polymerisation does not mal conditions.	occur.Stable under nor-
10.4 Conditions to avoid			
Conditions to avoid	:	No data available	
10.5 Incompatible materials			
Materials to avoid	:	Reactive with oxidising agents, redu acids and alkalis.	cing agents, alkali metals,
10.6 Hazardous decompositio	n proc	lucts	
Hezerdeus decomposition		May ralage COV SOV bydreserbe	a mathaandata mana

Hazardous decomposition : May release COx, SOx, hydrocarbons, methacrylate monoproducts mers, asphyxiants, 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.

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	:	Assessment: The substance or mixture has no acute dermal toxicity Remarks: No data available

Skin corrosion/irritation

Not classified due to lack of data.

Product:

Remarks : No data available

Serious eye damage/eye irritation

Not classified due to lack of data.



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Product: Remarks

: No data available

Respiratory or skin sensitisation

Skin sensitisation: Not classified due to lack of data. Respiratory sensitisation: Not classified due to lack of data.

Germ cell mutagenicity

Not classified due to lack of data.

Carcinogenicity

Not classified due to lack of data.

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.

SECTION 12: Ecological information

12.1 Toxicity

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Product:		
Toxicity to fish	:	Remarks: No data available
Toxicity to daphnia and o aquatic invertebrates	ther :	Remarks: No data available
Toxicity to algae/aquatic plants	:	Remarks: No data available
Toxicity to microorganism		Remarks: No data available

12.2 Persistence and degradability

Product:

Biodegradability : Rei	marks: No data available
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12.3 Bioaccumulative potential

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12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

Product:

Assessment

: 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.

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 disposal 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

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

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IATA (Passenger)	: Not regulated as a dangerous good			
14.5 Environmental hazards				
Not regulated as a dangerous good				
14.6 Special precautions for u Not applicable	ser			
14.7 Maritime transport in bul	k 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 Regulation (EU) 2019/1021 as amended for Great Britain)	:	Not applicable
Regulation (EC) No 1005/2009 on substances that deplete the ozone layer	:	Not applicable
UK REACH List of substances subject to authorisation (Annex XIV)	:	Not applicable

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

15.2 Chemical safety assessment

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



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SECTION 16: Other information

Full text of other abbreviations

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 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: www.petrocanadalubricants.com/sds Order Email for packed goods: pcepackage@hfsinclai Order Email for bulk: pceorders@hfsinclair.com Telephone: +31 88313 0365 / +31 88313 0366 For Product Safety Information: 1 905-491-0565 	r.com
Prepared by	: Product Safety: +1 905-491-0565	

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