TURBOFLO TM/MC R&O 100



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SECTION 1. IDENTIFICATION

Product name : TURBOFLO TM/MC R&O 100

Product code : TFRO100P5R, TFRO100P20, TFRO100DRR,

TFRO100DRM, TFRO100DCT, TFRO100, TFRO100BLK

Manufacturer or supplier's details

Petro-Canada America Lubricants LLC 2828 N. Harwood St., Suite 1300

Dallas TX 75201

United States

Telephone: 1-214-871-3555

Emergency telephone number

Emergency telephone num: CHEMTREC: 1-800-424-9300;

ber

Poison Control Centre: Consult local telephone directory for

emergency number(s).

Recommended use of the chemical and restrictions on use

Recommended use : Turboflo R&O are fluids formulated to have long service life

and provide corrosion and oxidation resistance in a wide range of applications. Primarily recommended as circulating

oil for various industrial machinery.

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

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Not a hazardous substance or mixture.

GHS label elements

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

Other hazards

None known.

IARC No component of this product present at levels greater than

or equal to 0.1% is identified as probable, possible or con-

firmed human carcinogen by IARC.

OSHA No component of this product present at levels greater than or

equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP No component of this product present at levels greater than or

equal to 0.1% is identified as a known or anticipated carcinogen

by NTP.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

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Components

Chemical name	CAS-No.	Concentration (% w/w)
Distillates (petroleum), hydrotreated heavy paraffinic; Baseoil — unspecified	64742-54-7	90 - 100
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based, high-viscosity; Baseoil — unspecified	72623-85-9	70 - 90
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based; Baseoil — unspecified	72623-87-1	10 - 20

Actual concentration is withheld as a trade secret

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 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.

Most important symptoms and effects, both acute and

and enects, both acut

First aider needs to protect himself.

delayed

Notes to physician : Treat symptomatically.

SECTION 5. FIREFIGHTING MEASURES

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

cumstances and the surrounding environment.

Unsuitable extinguishing

media

No information available.

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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), aldehydes, smoke and irritating vapours as

products of incomplete combustion.

Further information Prevent fire extinguishing water from contaminating surface

water or the ground water system.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protec: :

tive equipment and emergency procedures

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.

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

ronment.

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 protection against : None known.

fire and explosion

Advice on safe handling For personal protection see section 8.

Smoking, eating and drinking should be prohibited in the ap-

plication 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.

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 sun-

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light.

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 heavy paraffinic; Baseoil — unspecified	64742-54-7	TWA (Mist)	5 mg/m3	OSHA Z-1
		TWA (Inhal- able particu- late matter)	5 mg/m3	ACGIH
		TWA (Mist)	5 mg/m3	OSHA P0
		TWA (Mist)	5 mg/m3	NIOSH REL
		ST (Mist)	10 mg/m3	NIOSH REL
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based, high-viscosity; Baseoil — unspecified	72623-85-9	TWA (Mist)	5 mg/m3	OSHA Z-1
		TWA (Inhal- able particu- late matter)	5 mg/m3	ACGIH
		TWA (Mist)	5 mg/m3	OSHA P0
		TWA (Mist)	5 mg/m3	NIOSH REL
		ST (Mist)	10 mg/m3	NIOSH REL
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based; Baseoil — unspeci- fied	72623-87-1	TWA (Mist)	5 mg/m3	OSHA Z-1
		TWA (Inhal- able particu- late matter)	5 mg/m3	ACGIH
		TWA (Mist)	5 mg/m3	OSHA P0
		TWA (Mist)	5 mg/m3	NIOSH REL
		ST (Mist)	10 mg/m3	NIOSH REL

Engineering measures

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

Personal protective equipment

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

Hand protection

Material : neoprene, nitrile, polyvinyl alcohol (PVA), Viton®.

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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.

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

problems.

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.

Protective measures : Wash contaminated clothing before re-use.

Hygiene measures : Remove and wash contaminated clothing and gloves, includ-

ing the inside, before re-use.

Wash face, hands and any exposed skin thoroughly after

handling.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : viscous liquid

Colour : Pale, straw-yellow.

Odour : Mild petroleum oil like.

Odour Threshold : No data available

pH : No data available

Pour point : $-24 \, ^{\circ}\text{C} \, (-11 \, ^{\circ}\text{F})$

Boiling point/boiling range : No data available

Flash point : 262 °C (504 °F)

Method: Cleveland open cup

Fire Point : 298 °C (568 °F)

Evaporation rate : No data available

Flammability : Remarks: Low fire hazard. This material must be heated be-

fore ignition will occur.

Auto-Ignition Temperature : No data available

Upper explosion limit / Upper

flammability limit

No data available

Lower explosion limit / Lower :

flammability limit

No data available

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Vapour pressure : No data available

Relative vapour density : No data available

Relative density : No data available

Density : 0.8696 kg/l (59 °F / 15 °C)

Solubility(ies)

Water solubility : insoluble

Partition coefficient: n-

octanol/water

No data available

Viscosity

Viscosity, kinematic : 94.3 cSt (104 °F / 40 °C)

11.1 cSt (212 °F / 100 °C)

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

pose containers to heat or sources of ignition.

SECTION 10. STABILITY AND REACTIVITY

Reactivity : No dangerous reaction known under conditions of normal use.

Chemical stability : Stable under normal conditions.

Possibility of hazardous reac-

tions

Hazardous polymerisation does not occur.

Stable under normal conditions.

Conditions to avoid : No data available

Incompatible materials : Reactive with oxidising agents, reducing agents, alkali metals,

acids and alkalis.

Hazardous decomposition

products

May release COx, methacrylate monomers, smoke and irritat-

ing vapours when heated to decomposition.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Eye contact Ingestion Inhalation Skin contact

Acute toxicity

Not classified due to lack of data.

Product:

Acute oral toxicity : Remarks: No data available

Acute inhalation toxicity : Remarks: No data available

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Acute dermal toxicity : Remarks: No data available

Components:

Distillates (petroleum), hydrotreated heavy paraffinic; Baseoil — unspecified:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg,

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg,

Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based, 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 (petroleum), C20-50, hydrotreated neutral oil-based; Baseoil — unspeci-

fied:

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 irritation

Not classified due to lack of data.

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.

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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.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Toxicity to fish : Remarks: No data available

aquatic invertebrates

Toxicity to daphnia and other : Remarks: No data available

Toxicity to algae/aquatic

plants

: Remarks: No data available

Remarks: No data available Toxicity to microorganisms

Persistence and degradability

Product:

: Remarks: No data available Biodegradability

Bioaccumulative potential

No data available

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 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.

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SECTION 14. TRANSPORT INFORMATION

International Regulations

IATA-DGR

Not regulated as a dangerous good

IMDG-Code

Not regulated as a dangerous good

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

National Regulations

49 CFR

Not regulated as a dangerous good

SECTION 15. REGULATORY INFORMATION

California Prop. 65 This product contains chemical(s) known to the State of Cali-

fornia to cause cancer. For more information go to www.P65Warnings.ca.gov. The chemicals include:

ethyl acrylate 140-88-5

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

SECTION 16. OTHER INFORMATION

Further information

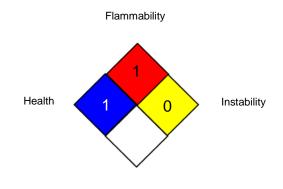
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NFPA 704:



Special hazard

HMIS® IV:



HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

Full text of other abbreviations

ACGIH : USA. ACGIH Threshold Limit Values (TLV)
NIOSH REL : USA. NIOSH Recommended Exposure Limits

OSHA PO : USA. Table Z-1-A Limits for Air Contaminants (1989 vacated

values)

OSHA Z-1 : USA. Occupational Exposure Limits (OSHA) - Table Z-1 Lim-

its for Air Contaminants

ACGIH / TWA : 8-hour, time-weighted average

NIOSH REL / TWA : Time-weighted average concentration for up to a 10-hour

workday during a 40-hour workweek

NIOSH REL / ST : STEL - 15-minute TWA exposure that should not be exceeded

at any time during a workday

OSHA P0 / TWA : 8-hour time weighted average OSHA Z-1 / TWA : 8-hour time weighted average

AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; 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; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; 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; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New

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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; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

For Copy of SDS : Internet: www.petrocanadalubricants.com/sds

United States, telephone: 1-800-268-5850; fax: 1-800-201-

6285

For Product Safety Information: 1 905-491-0565

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

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The information is considered as correct, but not exhaustive, and will be used only as a guide, which is based in the current knowledge of the substance or mixture, and is applicable to proper safety precautions for the product.

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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