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SECTION 1. IDENTIFICATION

Product name	:	TURBOFLO TM/MC XL 32
Synonyms	:	RDF-0230 (TFXL32)
Product code		TFXL32DRR, TFXL32P20, TFXL32IBC, TFXL32DRM, TFXL32DCT, TFXL32, TFXL32BLK
Manufacturer or supplier's de		ils Petro-Canada America Lubricants LLC 2828 N. Harwood St., Suite 1300 Dallas TX 75201 United States 1-214-871-3555
Emergency telephone numbe	er	
Emergency telephone : number		CHEMTREC: 1-800-424-9300; Poison Control Centre: Consult local telephone directory for emergency number(s).
Recommended use of the che	emi	ical and restrictions on use
Recommended use		Premium turbine fluid designed to lubricate and cool heavy steam and gas turbines and deliver excellent lubrication to bearings operating in severe conditions.
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

Not a hazardous substance or mixture.

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 confirmed 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

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

:

by NTP.

Mixture

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Components

Chemical name	CAS-No.	Concentration (% w/w)
Lubricating oils (petroleum), C20-50,	72623-87-1	70 - 90
hydrotreated neutral oil-based; Baseoil — unspecified		
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based; Baseoil — unspecified	72623-86-0	20 - 30

Actual concentration is withheld as a trade secret

SECTION 4. FIRST AID MEASURES

lf 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 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	:	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media	:	No information available.
Specific hazards during firefighting	:	Cool closed containers exposed to fire with water spray.
Hazardous combustion products	:	Carbon oxides (CO, CO2), smoke and irritating vapours as products of incomplete combustion.



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Further information	:	Prevent fire extinguishing water from contaminating surface
		water or the ground water system.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective 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.
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 protection against fire and explosion	:	None known.
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.
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	Control	Basis
		(Form of	parameters /	
		exposure)	Permissible	

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			concentration	
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based; Baseoil — unspecified	72623-87-1	TWA (Inhalable particulate matter)	5 mg/m3	ACGIH
		TWA (Mist)	5 mg/m3	OSHA Z-1
		TWA (Mist)	5 mg/m3	OSHA P0
		TWA (Mist)	5 mg/m3	NIOSH REL
		ST (Mist)	10 mg/m3	NIOSH REL
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based; Baseoil — unspecified	72623-86-0	TWA (Inhalable particulate matter)	5 mg/m3	ACGIH
		TWA (Mist)	5 mg/m3	OSHA Z-1
		TWA (Mist)	5 mg/m3	OSHA P0
		TWA (Mist)	5 mg/m3	NIOSH REL
		ST (Mist)	10 mg/m3	NIOSH REL

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

Personal protective equipment

reisonal protective equipin	σπ	
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		
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.
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 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



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Appearance	:	viscous liquid	
Colour	:	Pale, straw-yellow.	
Odour	:	Mild petroleum oil like.	
Odour Threshold	:	No data available	
рН	:	No data available	
Pour point Boiling point/boiling range	:	-30 °C (-22 °F) No data available	
Flash point	:	220 °C (428 °F) Method: Cleveland open cup	
Fire Point	:	238 °C (460 °F)	
Evaporation rate	:	No data available	
Flammability	:	Low fire hazard. This material mu will occur.	ust be heated before ignition
Auto-Ignition Temperature	:	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	:	0.86 kg/l (15 °C / 59 °F)	
Solubility(ies)			
Water solubility	:	insoluble	
Partition coefficient: n- octanol/water	:	No data available	
Viscosity Viscosity, kinematic	:	33.9 cSt (40 °C / 104 °F)	
		5.6 cSt (100 °C / 212 °F)	
Explosive properties	:	Do not pressurize, cut, weld, braz expose containers to heat or sou	

SECTION 10. STABILITY AND REACTIVITY

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Possibility of hazardous reactions	:	Hazardous polymerisation does not of Stable under normal conditions.	ccur.
Conditions to avoid	:	No data available	
Incompatible materials	:	Reactive with oxidising agents, acids, agents.	alkalis and reducing
Hazardous decomposition products	:	May release COx, NOx, SOx, methac and irritating vapours when heated to	

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes Eye contact Ingestion Inhalation Skin contact	s of	exposure	
Acute toxicity			
<u>Product:</u> Acute oral toxicity	:	Remarks: No data available	
Acute inhalation toxicity	:	Assessment: The substance or mixture has no acute inhalation toxicity Remarks: No data available	
Acute dermal toxicity	:	Assessment: The substance or mixture has no acute dermal toxicity Remarks: No data available	
<u>Components:</u> Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based; 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), C15-30, hydrotreated neutral oil-based; 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	

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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

Reproductive toxicity

No data available

STOT - single exposure

No data available

STOT - repeated exposure

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/aquatic plants	:	Remarks: No data available		
Toxicity to microorganisms	:	Remarks: No data available		
Persistence and degradability				
Product:				
Biodegradability	:	Remarks: No data available		

Bioaccumulative potential

No data available

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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 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

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 ethyl acrylate	This product contains chemical(s) known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov. The chemicals include: 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		

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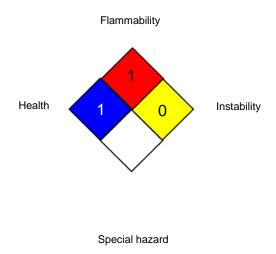


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SECTION 16. OTHER INFORMATION

Further information

NFPA 704:



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 NIOSH REL		USA. ACGIH Threshold Limit Values (TLV) USA. NIOSH Recommended Exposure Limits
OSHA P0		USA. Table Z-1-A Limits for Air Contaminants (1989 vacated values)
OSHA Z-1	:	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits 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 OSHA Z-1 / TWA		8-hour time weighted average 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

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- 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 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: lubricants.petro-canada.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
Revision Date Date format	:	2022/08/15 yyyy/mm/dd

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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