

SAFETY DATA SHEET

PURETOL™ 9D



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

1.1 Product identifier

Product name : PURETOL™ 9D

EC number : 232-455-8

REACH Registration number

Registration number	Legal entity
01-2119487078-27-0010	-

CAS number : 8042-47-5

Product code : PTL9D

Product description : Not available.

Material uses : This material is a European Pharmacopoeia (EP) and German Pharmacopoeia (DAB 10) grade white mineral oil.

Product type : Liquid.

Other means of identification : Not available.

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

Identified uses
Manufacture of substance - Industrial
Use in cleaning agents - Consumer
Use in metal working fluids/rolling oils - Industrial
Use in metal working fluids/rolling oils - Professional
Use in binder and release agents - Industrial
Use in binder and release agents - Professional
Use in agrochemicals - Professional
Use in agrochemicals - Consumer
Use in rubber production and processing - Industrial
Use in polymer processing - Industrial
Use as an intermediate - Industrial
Use in lubricants - Industrial
Use in lubricants (Low release) - Professional
Use in lubricants (high release) - Professional
Use in lubricants (Low release) - Consumer
Use in lubricants (high release) - Consumer
Use in laboratories - Industrial
Use in laboratories - Professional
Use in water treatment agents - Industrial
Use in water treatment agents - Professional
Use in explosives - Professional
Distribution of substance - Industrial
Use in functional fluids - Industrial
Use in functional fluids - Professional
Uses in cosmetics/personal care products, perfumes and fragrances - Consumer
Formulation and (re)packing of substances and mixtures - Industrial
Use in coatings - Industrial
Use in coatings - Professional
Use in coatings - Consumer
Use in cleaning agents - Industrial
Use in cleaning agents - Professional

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

1.3 Details of the supplier of the safety data sheet

Manufacturer : Petro-Canada Lubricants Inc.
2310 Lakeshore Road West
Mississauga, Ontario
Canada L5J 1K2

Supplier : HollyFrontier LSP Europe BV
Mainhavenweg 6
1043 AL Amsterdam
The Netherlands
Tel: +31 (0)85 4000080

e-mail address of person responsible for this SDS : eusds@hollyfrontier.com

1.4 Emergency telephone number

National advisory body/Poison Centre

Telephone number : Not applicable.

Supplier

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

Hours of operation : 24-hours

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mono-constituent substance

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Asp. Tox. 1, H304

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard pictograms :



Signal word : Danger

Hazard statements : May be fatal if swallowed and enters airways.

Precautionary statements

Prevention : Not applicable.

Response : IF SWALLOWED: Immediately call a POISON CENTER or physician. Do NOT induce vomiting.

Storage : Store locked up.

Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements : Not applicable.

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SECTION 2: Hazards identification

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Not applicable.

Special packaging requirements

Containers to be fitted with child-resistant fastenings : Not applicable.

Tactile warning of danger : Not applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII :

PBT	P	B	T	vPvB	vP	vB
No	N/A	N/A	No	N/A	N/A	N/A

Other hazards which do not result in classification : None known.

SECTION 3: Composition/information on ingredients

3.1 Substances : Mono-constituent substance

Product/ingredient name	Identifiers	%	Regulation (EC) No. 1272/2008 [CLP]	Type
White mineral oil	REACH #: 01-2119487078-27 EC: 232-455-8 CAS: 8042-47-5	100	Asp. Tox. 1, H304 See Section 16 for the full text of the H statements declared above.	[A]

There are no additional ingredients present which, within the current knowledge of the supplier, are classified and contribute to the classification of the substance and hence require reporting in this section.

Type

[A] Constituent

[B] Impurity

[C] Stabilising additive

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

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SECTION 4: First aid measures

- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

4.2 Most important symptoms and effects, both acute and delayed

Over-exposure signs/symptoms

- Eye contact** : No specific data.
- Inhalation** : No specific data.
- Skin contact** : Repeated skin exposure can produce local skin destruction or dermatitis.
- Ingestion** : Adverse symptoms may include the following:
nausea or vomiting

4.3 Indication of any immediate medical attention and special treatment needed

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
Foam (Specifically trained personnel only)
Water fog (Specifically trained personnel only)
Dry chemical powder
Carbon dioxide
Other inert gases (subject to regulations)
Sand or earth
- Unsuitable extinguishing media** : Do not use direct water jets on the burning product; they could cause splattering and spread the fire.
Simultaneous use of foam and water on the same surface is to be avoided as water destroys the foam.

5.2 Special hazards arising from the substance or mixture

- Hazards from the substance or mixture** : In a fire or if heated, a pressure increase will occur and the container may burst.
- Hazardous combustion products** : Carbon oxides (CO, CO₂), smoke and irritating vapours as products of incomplete combustion.

5.3 Advice for firefighters

- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

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SECTION 5: Firefighting measures

- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
- Additional information** : Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions

- : Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and material for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product.

6.4 Reference to other sections

- : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Do not swallow. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

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SECTION 7: Handling and storage

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

7.3 Specific end use(s)

Recommendations : Not applicable
Industrial sector specific solutions : Not available.

SECTION 8: Exposure controls/personal protection

The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
White mineral oil	ACGIH TLV (United States). Notes: (Mineral oil) TWA: 5 mg/m ³ , (Inhalable fraction) 8 hours.

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

Product/ingredient name	Type	Exposure	Value	Population	Effects
Highly refined base oils	DNEL	Long term Dermal	220 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	160 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	92 mg/kg bw/day	General population [Human via the environment]	Systemic
	DNEL	Long term Inhalation	35 mg/m ³	General population [Human via the environment]	Systemic
	DNEL	Long term Oral	40 mg/kg bw/day	General population [Human via the environment]	Systemic

DNEL/DMEL Summary : Long-term systemic effects include non-reproductive effects and developmental / reproductive effects. Lowest DNEL is shown.

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SECTION 8: Exposure controls/personal protection

PNECs

No PNECs available

8.2 Exposure controls

Appropriate engineering controls : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection

Hand protection : 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. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. > 8 hours (breakthrough time): neoprene, nitrile, Viton®.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use. Recommended: organic vapour filter

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

- Physical state** : Liquid.
- Colour** : Clear and bright
- Odour** : No odour or slight petroleum oil like.
- Odour threshold** : Not available.
- pH** : Not available.
- Melting point/freezing point** : Not available.
- Initial boiling point and boiling range** : Not available.

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SECTION 9: Physical and chemical properties

Flash point	: Open cup: >180°C [Cleveland.]
Evaporation rate	: Not available.
Flammability (solid, gas)	: Low fire hazard. This material must be heated before ignition will occur.
Upper/lower flammability or explosive limits	: Not available.
Vapour pressure	: Not available.
Vapour density	: Not available.
Relative density	: 0.8581 kg/L @ 15°C (59°F)
Solubility in water	: Insoluble in water.
Partition coefficient: n-octanol/ water	: Not available.
Fire point	: Not available.
Decomposition temperature	: Not available.
Explosive properties	: Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.
Oxidising properties	: Not available.
Viscosity	: 15.5 cSt @ 40°C (104°F), 3.41 cSt @ 100°C (212°F)
Pour point	: -21°C (-6°F)

9.2 Other information

Solubility in water : Not available.

SECTION 10: Stability and reactivity

10.1 Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	: The product is stable.
10.3 Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid	: No specific data.
10.5 Incompatible materials	: Reactive with oxidising agents.
10.6 Hazardous decomposition products	: May release CO _x , smoke and irritating vapours when heated to decomposition.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Highly refined base oils	LC50 Inhalation Dusts and mists	Rat	>5000 mg/m ³	4 hours
	LD50 Dermal	Rabbit	>2000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-

Conclusion/Summary : Not available.

Acute toxicity estimates

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SECTION 11: Toxicological information

N/A

Irritation/Corrosion

Conclusion/Summary : Not available.

Sensitisation

Conclusion/Summary : Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Product/ingredient name	Result
White mineral oil	ASPIRATION HAZARD - Category 1

Information on likely routes of exposure : Routes of entry anticipated: Oral, Dermal, Inhalation.

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : No known significant effects or critical hazards.

Skin contact : No known significant effects or critical hazards.

Ingestion : May be fatal if swallowed and enters airways.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No specific data.

Inhalation : No specific data.

Skin contact : Repeated skin exposure can produce local skin destruction or dermatitis.

Ingestion : Adverse symptoms may include the following:
nausea or vomiting

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

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SECTION 11: Toxicological information

Potential chronic health effects

Not available.

- Conclusion/Summary** : Not available.
- General** : No known significant effects or critical hazards.
- Carcinogenicity** : All components listed in Annex VI to which Note L applies, and contained in the product, have been shown to contain less than 3% DMSO extractables as measured by IP346.
- Mutagenicity** : No known significant effects or critical hazards.
- Teratogenicity** : No known significant effects or critical hazards.
- Developmental effects** : No known significant effects or critical hazards.
- Fertility effects** : No known significant effects or critical hazards.

Other information : Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
PURETOL™ 9D	EC50 >100 mg/l	Daphnia	48 hours
	LC50 >100 mg/l	Fish	96 hours
Highly refined base oils	NOEC ≥100 mg/l	Algae	72 hours
	NOEC ≥100 mg/l	Daphnia	48 hours
	NOEC ≥100 mg/l	Fish	96 hours

Conclusion/Summary : Not available.

12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
PURETOL™ 9D	OECD 301B	>60 % - Readily - 28 days	-	Activated sludge

Conclusion/Summary : Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
PURETOL™ 9D	-	-	Readily

12.3 Bioaccumulative potential

Not available.

12.4 Mobility in soil

- Soil/water partition coefficient (K_{oc})** : Not available.
- Mobility** : Not available.

12.5 Results of PBT and vPvB assessment

Product/ingredient name	PBT	P	B	T	vPvB	vP	vB
PURETOL™ 9D	No	N/A	N/A	No	N/A	N/A	N/A

12.6 Other adverse effects : No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods

Product

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

Hazardous waste : The classification of the product may meet the criteria for a hazardous waste.

Packaging

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number	Not regulated.	Not regulated.	Not regulated.	Not regulated.
14.2 UN proper shipping name	-	-	-	-
14.3 Transport hazard class(es)	-	-	-	-
14.4 Packing group	-	-	-	-
14.5 Environmental hazards	No.	No.	No.	No.

14.6 Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code : Not available.

SECTION 15: Regulatory information

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

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions : Not applicable.
**on the manufacture,
placing on the market
and use of certain
dangerous substances,
mixtures and articles**

Other EU regulations

Industrial emissions : Not listed
**(integrated pollution
prevention and control) -
Air**

Industrial emissions : Not listed
**(integrated pollution
prevention and control) -
Water**

Ozone depleting substances (1005/2009/EU)

Not listed.

Prior Informed Consent (PIC) (649/2012/EU)

Not listed.

Seveso Directive

This product is not controlled under the Seveso Directive.

National regulations

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol (Annexes A, B, C, E)

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

Australia : All components are listed or exempted.
Canada : All components are listed or exempted.
China : All components are listed or exempted.
Europe : All components are listed or exempted.

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SECTION 15: Regulatory information

- Japan** : **Japan inventory (ENCS)**: All components are listed or exempted.
Japan inventory (ISHL): All components are listed or exempted.
- New Zealand** : All components are listed or exempted.
- Philippines** : All components are listed or exempted.
- Republic of Korea** : All components are listed or exempted.
- United States** : All components are listed or exempted.

15.2 Chemical safety assessment : Complete.

SECTION 16: Other information

✔ Indicates information that has changed from previously issued version.

- Abbreviations and acronyms** : ATE = Acute Toxicity Estimate
 CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
 DMEL = Derived Minimal Effect Level
 DNEL = Derived No Effect Level
 EUH statement = CLP-specific Hazard statement
 N/A = Not available
 PBT = Persistent, Bioaccumulative and Toxic
 PNEC = Predicted No Effect Concentration
 RRN = REACH Registration Number
 SGG = Segregation Group
 vPvB = Very Persistent and Very Bioaccumulative

Key literature references and sources for data : Available upon request.
 Trademarks owned or used under license.

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Asp. Tox. 1, H304	Calculation method

Full text of abbreviated H statements

H304	May be fatal if swallowed and enters airways.
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Full text of classifications [CLP/GHS]

Asp. Tox. 1, H304	ASPIRATION HAZARD - Category 1
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- Date of printing** : 1/28/2021
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- Version** : 3
- Prepared by** : Product Safety
- For Copy of SDS** : Internet: lubricants.petro-canada.com/sds
- Europe, telephone: 00-800-7387-6000
- For Product Safety Information: (001) 905-491-0565

Notice to reader

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SECTION 16: Other information

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Annex to the extended Safety Data Sheet (eSDS)

Consumer

Identification of the substance or mixture

Product definition : Mono-constituent substance
Code : PTL9D
Product name : PURETOL™ 9D

Section 1 - Title

Short title of the exposure scenario : ES 9.10.1a - highly refined base oils

List of use descriptors : **Identified use name:** Use in cleaning agents - Consumer
Substance supplied to that use in form of: As such
Sector of end use: SU21
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC08a, ERC08d
Market sector by type of chemical product: PC03, PC04, PC09a, PC24, PC35, PC38
Article category related to subsequent service life: Not applicable.

Annex to the extended Safety Data Sheet (eSDS)

Consumer

Identification of the substance or mixture

Product definition : Mono-constituent substance
Code : PTL9D
Product name : PURETOL™ 9D

Section 1 - Title

Short title of the exposure scenario : ES 9.16.1a - highly refined base oils

List of use descriptors : **Identified use name:** Use in agrochemicals - Consumer
Substance supplied to that use in form of: As such
Sector of end use: SU21
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC08a, ERC08d
Market sector by type of chemical product: PC12, PC27, PC22 Lawn and Garden Preparations, including fertilizers
Article category related to subsequent service life: Not applicable.

Annex to the extended Safety Data Sheet (eSDS)

Consumer

Identification of the substance or mixture

Product definition : Mono-constituent substance
Code : PTL9D
Product name : PURETOL™ 9D

Section 1 - Title

Short title of the exposure scenario : ES 9.23.1a - highly refined base oils

List of use descriptors : **Identified use name:** Use in lubricants (Low release) - Consumer
Substance supplied to that use in form of: As such
Sector of end use: SU21
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC09a, ERC09b
Market sector by type of chemical product: PC01, PC24, PC31, PC06
Automotive Care Products***
Article category related to subsequent service life: Not applicable.

Annex to the extended Safety Data Sheet (eSDS)

Consumer

Identification of the substance or mixture

Product definition : Mono-constituent substance
Code : PTL9D
Product name : PURETOL™ 9D

Section 1 - Title

Short title of the exposure scenario : ES 9.24.4a - highly refined base oils

List of use descriptors : **Identified use name:** Use in lubricants (high release) - Consumer
Substance supplied to that use in form of: As such
Sector of end use: SU21
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC08a, ERC08d
Market sector by type of chemical product: PC01, PC24, PC31, PC06
Automotive Care Products***
Article category related to subsequent service life: Not applicable.

Annex to the extended Safety Data Sheet (eSDS)

Consumer

Identification of the substance or mixture

Product definition : Mono-constituent substance
Code : PTL9D
Product name : PURETOL TM 9D

Section 1 - Title

Short title of the exposure scenario : ES 9.32.1a - highly refined base oils

List of use descriptors : **Identified use name:** Uses in cosmetics/personal care products, perfumes and fragrances - Consumer
Substance supplied to that use in form of: As such
Sector of end use: SU21
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC08a, ERC08d
Market sector by type of chemical product: PC28, PC39
Article category related to subsequent service life: Not applicable.

Annex to the extended Safety Data Sheet (eSDS)

Consumer

Identification of the substance or mixture

Product definition : Mono-constituent substance
Code : PTL9D
Product name : PURETOL™ 9D

Section 1 - Title

Short title of the exposure scenario : ES 9.7.1a - Highly Refined Base Oils

List of use descriptors : **Identified use name:** Use in coatings - Consumer
Substance supplied to that use in form of: As such
Sector of end use: SU21
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC08a, ERC08d
Market sector by type of chemical product: PC01, PC02, PC04, PC09a, PC09b, PC09c, PC15, PC18, PC23, PC24, PC31, PC34, PC05 Artists Supply and Hobby preparations, PC10 Building and construction preparations not covered elsewhere

Annex to the extended Safety Data Sheet (eSDS)

Industrial

Identification of the substance or mixture

Product definition : Mono-constituent substance
Code : PTL9D
Product name : PURETOL™ 9D

Section 1 - Title

Short title of the exposure scenario : ES 9.1.1a - highly refined base oils

List of use descriptors : **Identified use name:** Manufacture of substance - Industrial
Process Category: PROC01, PROC02, PROC03, PROC04, PROC08a, PROC08b, PROC15
Substance supplied to that use in form of: As such
Sector of end use: SU03, SU08, SU09
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC01, ERC04
Market sector by type of chemical product: Not applicable.
Article category related to subsequent service life: Not applicable.

Annex to the extended Safety Data Sheet (eSDS)

Industrial

Identification of the substance or mixture

Product definition : Mono-constituent substance
Code : PTL9D
Product name : PURETOL™ 9D

Section 1 - Title

Short title of the exposure scenario : ES 9.11.1a - highly refined base oils

List of use descriptors : **Identified use name:** Use in metal working fluids/rolling oils - Industrial
Process Category: PROC01, PROC02, PROC03, PROC04, PROC05, PROC07, PROC08a, PROC08b, PROC09, PROC10, PROC13, PROC17
Substance supplied to that use in form of: As such
Sector of end use: SU03
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC04
Market sector by type of chemical product: Not applicable.
Article category related to subsequent service life: Not applicable.

Identification of the substance or mixture

Product definition : Mono-constituent substance
Code : PTL9D
Product name : PURETOL™ 9D

Section 1 - Title

Short title of the exposure scenario : ES 9.12.1a - highly refined base oils

List of use descriptors : **Identified use name:** Use in metal working fluids/rolling oils - Professional
Process Category: PROC01, PROC02, PROC03, PROC05, PROC08a, PROC08b, PROC09, PROC10, PROC11, PROC13, PROC17
Substance supplied to that use in form of: As such
Sector of end use: SU22
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC08a, ERC08d
Market sector by type of chemical product: Not applicable.
Article category related to subsequent service life: Not applicable.

Annex to the extended Safety Data Sheet (eSDS)

Industrial

Identification of the substance or mixture

Product definition : Mono-constituent substance
Code : PTL9D
Product name : PURETOL™ 9D

Section 1 - Title

Short title of the exposure scenario : ES 9.13.1a - highly refined base oils

List of use descriptors : **Identified use name:** Use in binder and release agents - Industrial
Process Category: PROC01, PROC02, PROC03, PROC04, PROC06, PROC07, PROC08b, PROC10, PROC13, PROC14
Substance supplied to that use in form of: As such
Sector of end use: SU03
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC04
Market sector by type of chemical product: Not applicable.
Article category related to subsequent service life: Not applicable.

Identification of the substance or mixture

Product definition : Mono-constituent substance
Code : PTL9D
Product name : PURETOL™ 9D

Section 1 - Title

Short title of the exposure scenario : ES 9.14.1a - highly refined base oils

List of use descriptors : **Identified use name:** Use in binder and release agents - Professional
Process Category: PROC01, PROC02, PROC03, PROC04, PROC06, PROC08a, PROC08b, PROC10, PROC11, PROC14
Substance supplied to that use in form of: As such
Sector of end use: SU22
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC08a, ERC08d
Market sector by type of chemical product: Not applicable.
Article category related to subsequent service life: Not applicable.

Annex to the extended Safety Data Sheet (eSDS)

Professional

Identification of the substance or mixture

Product definition : Mono-constituent substance
Code : PTL9D
Product name : PURETOL™ 9D

Section 1 - Title

Short title of the exposure scenario : ES 9.15.1a - highly refined base oils

List of use descriptors : **Identified use name:** Use in agrochemicals - Professional
Process Category: PROC01, PROC02, PROC04, PROC08a, PROC08b, PROC11, PROC13
Substance supplied to that use in form of: As such
Sector of end use: SU22
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC08a, ERC08d
Market sector by type of chemical product: Not applicable.
Article category related to subsequent service life: Not applicable.

Annex to the extended Safety Data Sheet (eSDS)

Industrial

Identification of the substance or mixture

Product definition : Mono-constituent substance
Code : PTL9D
Product name : PURETOL™ 9D

Section 1 - Title

Short title of the exposure scenario : ES 9.17.1a - highly refined base oils

List of use descriptors : **Identified use name:** Use in rubber production and processing - Industrial
Process Category: PROC01, PROC02, PROC03, PROC04, PROC05, PROC06, PROC07, PROC08a, PROC08b, PROC09, PROC13, PROC14, PROC15, PROC21
Substance supplied to that use in form of: As such
Sector of end use: SU03, SU10, SU11
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC01, ERC04, ERC06d
Market sector by type of chemical product: Not applicable.
Article category related to subsequent service life: Not applicable.

Annex to the extended Safety Data Sheet (eSDS)

Industrial

Identification of the substance or mixture

Product definition : Mono-constituent substance
Code : PTL9D
Product name : PURETOL™ 9D

Section 1 - Title

Short title of the exposure scenario : ES 9.18.1a - highly refined base oils

List of use descriptors : **Identified use name:** Use in polymer processing - Industrial
Process Category: PROC01, PROC02, PROC03, PROC04, PROC05, PROC06, PROC08a, PROC08b, PROC09, PROC13, PROC14, PROC21
Substance supplied to that use in form of: As such
Sector of end use: SU10
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC04
Market sector by type of chemical product: Not applicable.
Article category related to subsequent service life: Not applicable.

Annex to the extended Safety Data Sheet (eSDS)

Industrial

Identification of the substance or mixture

Product definition : Mono-constituent substance
Code : PTL9D
Product name : PURETOL™ 9D

Section 1 - Title

Short title of the exposure scenario : ES 9.2.1a - highly refined base oils

List of use descriptors : **Identified use name:** Use as an intermediate - Industrial
Process Category: PROC01, PROC02, PROC03, PROC04, PROC08a, PROC08b, PROC15
Substance supplied to that use in form of: As such
Sector of end use: SU03, SU08, SU10
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC06a
Market sector by type of chemical product: Not applicable.
Article category related to subsequent service life: Not applicable.

Annex to the extended Safety Data Sheet (eSDS)

Industrial

Identification of the substance or mixture

Product definition : Mono-constituent substance
Code : PTL9D
Product name : PURETOL™ 9D

Section 1 - Title

Short title of the exposure scenario : ES 9.20.1a - highly refined base oils

List of use descriptors : **Identified use name:** Use in lubricants - Industrial
Process Category: PROC01, PROC02, PROC03, PROC04, PROC07, PROC08a, PROC08b, PROC09, PROC10, PROC13, PROC17, PROC18
Substance supplied to that use in form of: As such
Sector of end use: SU03
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC04, ERC07
Market sector by type of chemical product: Not applicable.
Article category related to subsequent service life: Not applicable.

Identification of the substance or mixture

Product definition : Mono-constituent substance
Code : PTL9D
Product name : PURETOL TM 9D

Section 1 - Title

Short title of the exposure scenario : ES 9.21.1a - highly refined base oils

List of use descriptors : **Identified use name:** Use in lubricants (Low release) - Professional
Process Category: PROC01, PROC02, PROC03, PROC04, PROC08a, PROC08b, PROC09, PROC10, PROC11, PROC13, PROC17, PROC18, PROC20
Substance supplied to that use in form of: As such
Sector of end use: SU22
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC09a, ERC09b
Market sector by type of chemical product: Not applicable.
Article category related to subsequent service life: Not applicable.

Annex to the extended Safety Data Sheet (eSDS)

Professional

Identification of the substance or mixture

Product definition : Mono-constituent substance
Code : PTL9D
Product name : PURETOL™ 9D

Section 1 - Title

Short title of the exposure scenario : ES 9.22.1a - highly refined base oils

List of use descriptors : **Identified use name:** Use in lubricants (high release) - Professional
Process Category: PROC01, PROC02, PROC03, PROC04, PROC08a, PROC08b, PROC09, PROC10, PROC11, PROC13, PROC17, PROC18, PROC20
Substance supplied to that use in form of: As such
Sector of end use: SU22
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC08a, ERC08d
Market sector by type of chemical product: Not applicable.
Article category related to subsequent service life: Not applicable.

Annex to the extended Safety Data Sheet (eSDS)

Industrial

Identification of the substance or mixture

Product definition : Mono-constituent substance
Code : PTL9D
Product name : PURETOL™ 9D

Section 1 - Title

Short title of the exposure scenario : ES 9.25.1a - highly refined base oils

List of use descriptors : **Identified use name:** Use in laboratories - Industrial
Process Category: PROC10, PROC15
Substance supplied to that use in form of: As such
Sector of end use: SU03
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC02, ERC04
Market sector by type of chemical product: Not applicable.
Article category related to subsequent service life: Not applicable.

Annex to the extended Safety Data Sheet (eSDS)

Professional

Identification of the substance or mixture

Product definition : Mono-constituent substance
Code : PTL9D
Product name : PURETOL™ 9D

Section 1 - Title

Short title of the exposure scenario : ES 9.26.1a - highly refined base oils

List of use descriptors : **Identified use name:** Use in laboratories - Professional
Process Category: PROC10, PROC15
Substance supplied to that use in form of: As such
Sector of end use: SU22
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC08a
Market sector by type of chemical product: Not applicable.
Article category related to subsequent service life: Not applicable.

Annex to the extended Safety Data Sheet (eSDS)

Industrial

Identification of the substance or mixture

Product definition : Mono-constituent substance
Code : PTL9D
Product name : PURETOL™ 9D

Section 1 - Title

Short title of the exposure scenario : ES 9.27.1a - highly refined base oils

List of use descriptors : **Identified use name:** Use in water treatment agents - Industrial
Process Category: PROC01, PROC02, PROC03, PROC04, PROC08a, PROC08b, PROC13
Substance supplied to that use in form of: As such
Sector of end use: SU10
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC03, ERC04
Market sector by type of chemical product: Not applicable.
Article category related to subsequent service life: Not applicable.

Identification of the substance or mixture

Product definition : Mono-constituent substance
Code : PTL9D
Product name : PURETOL™ 9D

Section 1 - Title

Short title of the exposure scenario : ES 9.28.1a - highly refined base oils

List of use descriptors : **Identified use name:** Use in water treatment agents - Professional
Process Category: PROC01, PROC02, PROC03, PROC04, PROC08a, PROC08b, PROC13
Substance supplied to that use in form of: As such
Sector of end use: SU22
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC08f
Market sector by type of chemical product: Not applicable.
Article category related to subsequent service life: Not applicable.

Identification of the substance or mixture

Product definition : Mono-constituent substance
Code : PTL9D
Product name : PURETOL TM 9D

Section 1 - Title

Short title of the exposure scenario : ES 9.29.1a - highly refined base oils

List of use descriptors : **Identified use name:** Use in explosives - Professional
Process Category: PROC01, PROC03, PROC05, PROC08a, PROC08b
Substance supplied to that use in form of: As such
Sector of end use: SU22
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC08e
Market sector by type of chemical product: Not applicable.
Article category related to subsequent service life: Not applicable.

Annex to the extended Safety Data Sheet (eSDS)

Industrial

Identification of the substance or mixture

Product definition : Mono-constituent substance
Code : PTL9D
Product name : PURETOL™ 9D

Section 1 - Title

Short title of the exposure scenario : ES 9.3.1a - highly refined base oils

List of use descriptors : **Identified use name:** Distribution of substance - Industrial
Process Category: PROC01, PROC02, PROC03, PROC04, PROC08a, PROC08b, PROC09, PROC15
Substance supplied to that use in form of: As such
Sector of end use: SU03
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC01, ERC02, ERC03, ERC04, ERC05, ERC06a, ERC06b, ERC06c, ERC06d, ERC07
Market sector by type of chemical product: Not applicable.
Article category related to subsequent service life: Not applicable.

Annex to the extended Safety Data Sheet (eSDS)

Industrial

Identification of the substance or mixture

Product definition : Mono-constituent substance
Code : PTL9D
Product name : PURETOL™ 9D

Section 1 - Title

Short title of the exposure scenario : ES 9.30.1a - highly refined base oils

List of use descriptors : **Identified use name:** Use in functional fluids - Industrial
Process Category: PROC01, PROC02, PROC03, PROC08a, PROC08b, PROC09
Substance supplied to that use in form of: As such
Sector of end use: SU03
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC07
Market sector by type of chemical product: Not applicable.
Article category related to subsequent service life: Not applicable.

Identification of the substance or mixture

Product definition : Mono-constituent substance
Code : PTL9D
Product name : PURETOL™ 9D

Section 1 - Title

Short title of the exposure scenario : ES 9.31.1a - highly refined base oils

List of use descriptors : **Identified use name:** Use in functional fluids - Professional
Process Category: PROC01, PROC02, PROC03, PROC08a, PROC09, PROC20
Substance supplied to that use in form of: As such
Sector of end use: SU22
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC09a, ERC09b
Market sector by type of chemical product: Not applicable.
Article category related to subsequent service life: Not applicable.

Annex to the extended Safety Data Sheet (eSDS)

Industrial

Identification of the substance or mixture

Product definition : Mono-constituent substance
Code : PTL9D
Product name : PURETOL™ 9D

Section 1 - Title

Short title of the exposure scenario : ES 9.4.1a - highly refined base oils

List of use descriptors : **Identified use name:** Formulation and (re)packing of substances and mixtures - Industrial
Process Category: PROC01, PROC02, PROC03, PROC04, PROC05, PROC08a, PROC08b, PROC09, PROC14, PROC15
Substance supplied to that use in form of: As such
Sector of end use: SU03, SU10
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC02
Market sector by type of chemical product: Not applicable.
Article category related to subsequent service life: Not applicable.

Annex to the extended Safety Data Sheet (eSDS)

Industrial

Identification of the substance or mixture

Product definition : Mono-constituent substance
Code : PTL9D
Product name : PURETOL™ 9D

Section 1 - Title

Short title of the exposure scenario : ES 9.5.1a - highly refined base oils

List of use descriptors : **Identified use name:** Use in coatings - Industrial
Process Category: PROC01, PROC02, PROC03, PROC04, PROC05, PROC07, PROC08a, PROC08b, PROC10, PROC13, PROC15
Substance supplied to that use in form of: As such
Sector of end use: SU03
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC04
Market sector by type of chemical product: Not applicable.
Article category related to subsequent service life: Not applicable.

Identification of the substance or mixture

Product definition : Mono-constituent substance
Code : PTL9D
Product name : PURETOL™ 9D

Section 1 - Title

Short title of the exposure scenario : ES 9.6.1a - highly refined base oils

List of use descriptors : **Identified use name:** Use in coatings - Professional
Process Category: PROC01, PROC02, PROC03, PROC04, PROC05, PROC08a, PROC08b, PROC10, PROC11, PROC13, PROC15, PROC19
Substance supplied to that use in form of: As such
Sector of end use: SU22
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC08a, ERC08d
Market sector by type of chemical product: Not applicable.
Article category related to subsequent service life: Not applicable.

Annex to the extended Safety Data Sheet (eSDS)

Industrial

Identification of the substance or mixture

Product definition : Mono-constituent substance
Code : PTL9D
Product name : PURETOL™ 9D

Section 1 - Title

Short title of the exposure scenario : ES 9.8.1a - Highly Refined Base Oils

List of use descriptors : **Identified use name:** Use in cleaning agents - Industrial
Process Category: PROC01, PROC02, PROC03, PROC04, PROC07, PROC08a, PROC08b, PROC10, PROC13
Substance supplied to that use in form of: As such
Sector of end use: SU03
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC04
Market sector by type of chemical product: Not applicable.
Article category related to subsequent service life: Not applicable.

Annex to the extended Safety Data Sheet (eSDS)

Professional

Identification of the substance or mixture

Product definition : Mono-constituent substance
Code : PTL9D
Product name : PURETOL™ 9D

Section 1 - Title

Short title of the exposure scenario : ES 9.9.1a - Highly Refined Base Oils

List of use descriptors : **Identified use name:** Use in cleaning agents - Professional
Process Category: PROC01, PROC02, PROC03, PROC04, PROC08a, PROC08b, PROC10, PROC11, PROC13
Substance supplied to that use in form of: As such
Sector of end use: SU22
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC08a, ERC08d
Market sector by type of chemical product: Not applicable.
Article category related to subsequent service life: Not applicable.