

SAFETY DATA SHEET

Primary Chaincase Lubricant



Section 1. Identification

Product identifier : Primary Chaincase Lubricant
Product code : 301830150160
Other means of identification : Not available.
Product type : Liquid.

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

Identified uses	
Consumer products: Lubricating Oil	
Uses advised against	Reason
None known.	

Supplier's details : Calumet Branded Products, LLC
2780 Waterfront Pkwy E. Drive Suite 200
Indianapolis, IN 46214
USA
Technical Services:317-328-5660

24hr. CHEMTREC : 24 hr. CHEMTREC 1-800-424-9300 / International 1-703-527-3887
1-800-424-9300 /
International 1-703-527-3887

Section 2. Hazard identification

Classification of the substance or mixture : AQUATIC HAZARD (ACUTE) - Category 3
AQUATIC HAZARD (LONG-TERM) - Category 3

GHS label elements

Signal word : No signal word.
Hazard statements : Harmful to aquatic life with long lasting effects.

Precautionary statements

General : Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.
Prevention : Avoid release to the environment.
Response : Not applicable.
Storage : Not applicable.
Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements : Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 4.4%

Section 3. Composition/information on ingredients

Substance/mixture : Mixture
Other means of identification : Not available.

Section 3. Composition/information on ingredients

Ingredient name	Synonyms	% (w/w)	CAS number
Distillates (petroleum), hydrotreated heavy paraffinic	Baseoil - unspecified; Distillates, petroleum, hydrotreated heavy paraffinic; Mineral oil, petroleum distillates, hydrotreated heavy paraffinic; Distillates (petroleum), hydro-treated heavy paraffinic; Paraffin oil; HYDROTREATED HEAVY PARAFFINIC DISTILLATE; DISTILLATES (PETROLEUM) HYDROFVLD; Distillates (petroleum), hydrotreated heavy paraffinic, Baseoil - unspecified	≥80	64742-54-7
Distillates (petroleum), solvent-dewaxed heavy paraffinic	Baseoil - unspecified; Distillates, petroleum, solvent dewaxed heavy paraffinic; Mineral oil, petroleum distillates, solvent-dewaxed heavy paraffinic; Paraffin oil; Distillates, petroleum, solvent-dewaxed heavy paraffinic; Distillate (Pet.) solvent-dewaxed heavy paraffinic; SOLVENT REFINED PARAFFINIC MINERAL OIL; OILS, PARAFFINIC, HEAVY, SOLVENT DEWAXED; Solvent dewaxed heavy paraffinic petroleum oil; PARAFFINIC PETROLEUM DISTILLATES; Distillates (petroleum), solvent-dewaxed heavy paraffinic, Baseoil - unspecified	≥5 - ≤10	64742-65-0
Distillates (petroleum), solvent-dewaxed light paraffinic	Baseoil - unspecified; Distillates, petroleum, solvent dewaxed light paraffinic; Mineral oil, petroleum distillates, solvent-dewaxed light paraffinic; Solvent-dewaxed light paraffinic distillates (petroleum); Distillate (petroleum), solvent dewaxed light paraffinic distillate; Distillates, petroleum, solvent-dewaxed light paraffinic; Distillates (petroleum), solvent dewaxed light paraffinic; Distillates (petroleum), solvent-dewaxed light paraffinic, Baseoil - unspecified; Petroleum distillates, solvent dewaxed light paraffinic	≥1 - ≤5	64742-56-9
Distillates (petroleum), hydrotreated light paraffinic	Baseoil - unspecified; Distillates, petroleum, hydrotreated light paraffinic; Mineral oil, petroleum distillates, hydrotreated light paraffinic; Mineral oil, petroleum distillates, hydrotreated (mild) light paraffinic; Distillates (petroleum), hydro-treated light paraffinic; Paraffin oil; DISTILLATES (PETROLEUM) HYDROTREATED LIGHT PARAFFINIC; DISTILLATES, HYDROTREATED LIGHT PARAFFINIC; ALIPHATIC HYDROCARBON, SULFURIZED;	≥1 - ≤5	64742-55-8

Section 3. Composition/information on ingredients

Distillates (petroleum), hydrotreated heavy naphthenic	Distillates (petroleum), hydrotreated light paraffinic, Baseoil - unspecified		
	Baseoil - unspecified; Distillates, petroleum, hydrotreated heavy naphthenic; Hydrotreated heavy naphthenic distillate, solvent extract, petroleum; Mineral oil, petroleum distillates, hydrotreated heavy naphthenic; Mineral oil, petroleum distillates, hydrotreated (severe) heavy naphthenic; Distillates (petroleum), hydro-treated heavy naphthenic; Hydrotreated heavy naphthenic distillate solvent extract (petroleum); OILS, MINERAL, HEAVY NAPHTHENIC, HYDROTREATED; OILS, NAPHTHENIC, HYDROGENATED; SEVERELY SOLVENT REFINED HEAVY PARAFFINIC DISTILLATES; HYDROTREATED LIGHT PETROLEUM DISTILLATE	≥1 - ≤5	64742-52-5
zinc bis(dipentylidithiocarbamate)	Zinc, bis(N,N-dipentylcarbamo-dithioato-.kappa.S,. kappa.S')-, (T-4)-; Zinc, bis (dipentylcarbamo-dithioato-S,S')-, (β-4)-; Zinc, bis (dipentylcarbamo-dithioato-S,S')-, (T-4)-; Zinc, bis (dipentylcarbamo-dithioato-.kappa.S,. kappa.S')-, (T-4)-; Zinc N-diamyldithiocarbamate; BIS (DIPENTYLCARBAMODITHIOATO-S,S')-ZINC; ZINC, BIS (DIPENTYLCARBAMODITHIOATE S,S); ZINC,BIS (DIPENTYLCARBAMO DITHIONATE S,S); Zinc,bis (dipentylcarbamo-dithioatoS,S'); ZINC DIAMYLDITHIOCARBAMATE	≥1 - ≤5	15337-18-5
Amines, C12-14-tert-alkyl, compds. with 2(3H)-benzothiazolethione	Amines, C12-14-tert-alkyl, compounds with 2(3H)-benzothiazolethione; (C12-14) tert-Alkylamines, compound with 2(3H)-benzothiazolethione; C12-14-tert-Alkylamines, compd. with 2(3H)-benzothiazolethione; tert-Alkyl (C=12-14) amines compds. with 2-(3H) benzothiazolethione; AMINES, C12-14 TERT ALKYL, COMPOUNDS WITH 2(3-H) BENZOTHIAZOLETHION	≥0.1 - ≤1	68911-68-2

Ranges if listed above for hazardous ingredient(s) are prescribed ranges. The actual concentration(s) or actual concentration range(s) are being withheld as a trade secret.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified and hence require reporting in this section.

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

Section 4. First-aid measures

Description of necessary 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. Get medical attention if irritation occurs.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
- Ingestion** : Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel.

Most important symptoms/effects, acute and delayed

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** : No known significant effects or critical hazards.

Over-exposure signs/symptoms

- Eye contact** : No specific data.
- Inhalation** : No specific data.
- Skin contact** : No specific data.
- Ingestion** : No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : Do not use water jet.

- Specific hazards arising from the chemical** : In a fire or if heated, a pressure increase will occur and the container may burst. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides
sulfur oxides
metal oxide/oxides

Section 5. Fire-fighting measures

- 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.
- 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.

Section 6. Accidental release measures

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 spilled material. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized 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".
- Environmental precautions** : Avoid dispersal of spilled 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). Water polluting material. May be harmful to the environment if released in large quantities.

Methods and materials 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 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 (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Avoid release to the environment. 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.
- 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. 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 unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Distillates (petroleum), hydrotreated heavy paraffinic	CA Alberta Provincial (Canada, 6/2018). [Oil] 8 hrs OEL: 5 mg/m ³ 8 hours. Form: Mist 15 min OEL: 10 mg/m ³ 15 minutes. Form: Mist CA Quebec Provincial (Canada, 6/2021). [Mineral oil (mist)] TWAEV: 5 mg/m ³ 8 hours. Form: mist STEV: 10 mg/m ³ 15 minutes. Form: mist
Distillates (petroleum), solvent-dewaxed heavy paraffinic	CA Alberta Provincial (Canada, 6/2018). [Oil] 8 hrs OEL: 5 mg/m ³ 8 hours. Form: Mist 15 min OEL: 10 mg/m ³ 15 minutes. Form: Mist CA Quebec Provincial (Canada, 6/2021). [Mineral oil (mist)] TWAEV: 5 mg/m ³ 8 hours. Form: mist STEV: 10 mg/m ³ 15 minutes. Form: mist
Distillates (petroleum), solvent-dewaxed light paraffinic	CA Alberta Provincial (Canada, 6/2018). [Oil] 8 hrs OEL: 5 mg/m ³ 8 hours. Form: Mist 15 min OEL: 10 mg/m ³ 15 minutes. Form: Mist CA Quebec Provincial (Canada, 6/2021). [Mineral oil (mist)] TWAEV: 5 mg/m ³ 8 hours. Form: mist STEV: 10 mg/m ³ 15 minutes. Form: mist
Distillates (petroleum), hydrotreated light paraffinic	CA Alberta Provincial (Canada, 6/2018). [Oil] 8 hrs OEL: 5 mg/m ³ 8 hours. Form: Mist 15 min OEL: 10 mg/m ³ 15 minutes. Form: Mist CA Quebec Provincial (Canada, 6/2021). [Mineral oil (mist)] TWAEV: 5 mg/m ³ 8 hours. Form: mist STEV: 10 mg/m ³ 15 minutes. Form: mist
Distillates (petroleum), hydrotreated heavy naphthenic	CA Alberta Provincial (Canada, 6/2018). [Oil] 8 hrs OEL: 5 mg/m ³ 8 hours. Form: Mist 15 min OEL: 10 mg/m ³ 15 minutes. Form: Mist CA Quebec Provincial (Canada, 6/2021). [Mineral oil (mist)] TWAEV: 5 mg/m ³ 8 hours. Form: mist STEV: 10 mg/m ³ 15 minutes. Form: mist

Biological exposure indices

None known.

Appropriate engineering controls

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

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.

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

Section 8. Exposure controls/personal 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.
- 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.

Section 9. Physical and chemical properties and safety characteristics

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

Appearance

- Physical state** : Liquid.
- Color** : Red.
- Odor** : Characteristic.
- Odor threshold** : Not available.
- pH** : Not available.
- Melting point/freezing point** : Not available.
- Boiling point, initial boiling point, and boiling range** : Not available.
- Flash point** : Open cup: 232.22°C (450°F) [Cleveland]
- Evaporation rate** : Not available.
- Flammability** : Not available.
- Lower and upper explosion limit/flammability limit** : Not available.
- Vapor pressure** :

Ingredient name	Vapor Pressure at 20°C			Vapor pressure at 50°C		
	mm Hg	kPa	Method	mm Hg	kPa	Method
Distillates (petroleum), hydrotreated heavy paraffinic	<0.08	<0.011	ASTM D 5191			

- Relative vapor density** : Not available.

- Relative density** : 0.8691

Media	Result
cold water	Not soluble
hot water	Not soluble

- Solubility in water** : Not available.

- Partition coefficient: n-octanol/water** : Not applicable.

- Auto-ignition temperature** : Not available.

- Decomposition temperature** : Not available.

- Viscosity** : Kinematic (40°C (104°F)): 57.59 mm²/s (57.59 cSt)

Section 9. Physical and chemical properties and safety characteristics

Flow time (ISO 2431) : Not available.

Pour point : -45°C (-49°F)

Particle characteristics

Median particle size : ☒ Not applicable.

Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : No specific data.

Incompatible materials : No specific data.

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
<input checked="" type="checkbox"/> Distillates (petroleum), hydrotreated heavy paraffinic	LC50 Inhalation Dusts and mists	Rat	5.7 mg/l	4 hours
	LD50 Dermal	Rabbit	>2000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
Distillates (petroleum), solvent-dewaxed heavy paraffinic	LC50 Inhalation Dusts and mists	Rat	>5.53 mg/l	4 hours
	LD50 Dermal	Rabbit	>2000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
Distillates (petroleum), solvent-dewaxed light paraffinic	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Dermal	Rat	>2000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
Distillates (petroleum), hydrotreated light paraffinic	LC50 Inhalation Dusts and mists	Rat	>5.53 mg/l	4 hours
	LD50 Dermal	Rabbit	>2000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
Distillates (petroleum), hydrotreated heavy naphthenic	LC50 Inhalation Dusts and mists	Rat	5.7 mg/l	4 hours
	LD50 Dermal	Rabbit	>2000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
zinc bis (dipentylidithiocarbamate)	LD50 Dermal	Rabbit	>16000 mg/kg	-
	LD50 Oral	Rat	>2000 mg/kg	-
	LD50 Oral	Rat	>2000 mg/kg	-

Irritation/Corrosion

Not available.

Sensitization

Section 11. Toxicological information

Product/ingredient name	Route of exposure	Species	Result
Zinc bis (dipentylthiocarbamate) Amines, C12-14-tert-alkyl, compds. with 2(3H)- benzothiazolethione	skin	Mouse	Not sensitizing
	skin	Guinea pig	Sensitizing

Mutagenicity

Product/ingredient name	Test	Experiment	Result
Zinc bis (dipentylthiocarbamate)	OECD 471 Bacterial Reverse Mutation Test	Experiment: In vitro Subject: Bacteria	Negative
	OECD 487 <i>In vitro</i> Micronucleus Test	Experiment: In vitro Subject: Mammalian-Human	Negative

Carcinogenicity

Not available.

Classification

Product/ingredient name	IARC	NTP	ACGIH
Distillates (petroleum), hydrotreated heavy paraffinic	-	-	A4
Distillates (petroleum), solvent-dewaxed heavy paraffinic	-	-	A4
Distillates (petroleum), solvent-dewaxed light paraffinic	-	-	A4
Distillates (petroleum), hydrotreated light paraffinic	-	-	A4
Distillates (petroleum), hydrotreated heavy naphthenic	-	-	A4

Reproductive toxicity

Product/ingredient name	Maternal toxicity	Fertility	Development toxin	Species	Dose	Exposure
Zinc bis (dipentylthiocarbamate)	Equivocal	Equivocal	Equivocal	Rat	Oral: 250 mg/kg	-

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Name	Result
Distillates (petroleum), solvent-dewaxed light paraffinic	ASPIRATION HAZARD - Category 1
Distillates (petroleum), hydrotreated light paraffinic	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure : Not available.

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 : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No specific data.
Inhalation : No specific data.

Section 11. Toxicological information

Skin contact : No specific data.

Ingestion : No specific data.

Delayed and immediate effects and also 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.

Potential chronic health effects

Not available.

General : No known significant effects or critical hazards.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Reproductive toxicity : ☒ No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
Primary Chaincase Lubricant	215533.2	2562.7	N/A	N/A	N/A
Distillates (petroleum), hydrotreated heavy paraffinic	N/A	2500	N/A	N/A	5.7
Distillates (petroleum), solvent-dewaxed heavy paraffinic	N/A	2500	N/A	N/A	N/A
Distillates (petroleum), solvent-dewaxed light paraffinic	N/A	2500	N/A	N/A	N/A
Distillates (petroleum), hydrotreated light paraffinic	N/A	2500	N/A	N/A	N/A
Distillates (petroleum), hydrotreated heavy naphthenic	N/A	2500	N/A	N/A	5.7
zinc bis(dipentylthiocarbamate)	2500	N/A	N/A	N/A	N/A

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Distillates (petroleum), hydrotreated heavy paraffinic	Acute EC50 >100 mg/l	Daphnia	48 hours
Distillates (petroleum), solvent-dewaxed heavy paraffinic	Acute IC50 >100 mg/l	Algae	72 hours
	Acute LC50 >100 mg/l	Fish	96 hours
	Acute EC50 >100 mg/l	Algae	72 hours
	Acute EC50 >100 mg/l	Daphnia	48 hours
Distillates (petroleum), hydrotreated light paraffinic	Acute LC50 >100 mg/l	Fish	96 hours
	Chronic NOEL >1 mg/l	Daphnia	21 days
	Acute EC50 >100 mg/l	Algae	72 hours
	Acute EC50 >100 mg/l	Daphnia	48 hours

Section 12. Ecological information

Distillates (petroleum), hydrotreated heavy naphthenic	Acute LC50 >100 mg/l Acute EC50 >100 mg/l	Fish Algae	96 hours 72 hours
	Acute EC50 >100 mg/l Acute LC50 >100 mg/l Acute EC50 0.44 mg/l	Crustaceans Fish Algae	48 hours 96 hours 72 hours
	Acute EC50 2.5 mg/l Acute EC50 1.3 mg/l	Daphnia Fish	48 hours 96 hours
Amines, C12-14-tert-alkyl, compds. with 2(3H)- benzothiazolethione			

Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
zinc bis (dipentylthiocarbamate)	OECD 301B Ready Biodegradability - CO ₂ Evolution Test	21 % - Not readily - 28 days	-	-
Amines, C12-14-tert-alkyl, compds. with 2(3H)- benzothiazolethione	OECD 301D Ready Biodegradability - Closed Bottle Test	22 % - Not readily - 28 days	-	-

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Distillates (petroleum), hydrotreated heavy paraffinic	-	-	Not readily
Distillates (petroleum), hydrotreated light paraffinic	-	-	Inherent
Distillates (petroleum), hydrotreated heavy naphthenic	-	-	Inherent
zinc bis (dipentylthiocarbamate)	-	-	Not readily
Amines, C12-14-tert-alkyl, compds. with 2(3H)- benzothiazolethione	-	-	Not readily

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Distillates (petroleum), hydrotreated heavy paraffinic	>6	-	high
Distillates (petroleum), solvent-dewaxed heavy paraffinic	2 to 6	-	high
Distillates (petroleum), hydrotreated light paraffinic	>6	-	high

Mobility in soil

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

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

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized 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. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. 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

	DOT Classification	TDG Classification	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.	Not regulated.

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.

Transport in bulk according to IMO instruments : Not available.

Section 15. Regulatory information

Canadian lists

Canadian NPRI : The following components are listed: zinc (and its compounds)
CEPA Toxic substances : None of the components are listed.

Inventory list

Australia : All components are listed or exempted.
Canada : All components are listed or exempted.
China : All components are listed or exempted.
Eurasian Economic Union : **Russian Federation inventory:** 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.
Taiwan : All components are listed or exempted.
Thailand : Not determined.
Turkey : Not determined.
United States : All components are active or exempted.
Viet Nam : All components are listed or exempted.

Section 16. Other information

History

Date of issue/Date of revision : 03/06/2023
Date of previous issue : 05/27/2020
Version : 2

Section 16. Other information

Key to abbreviations

: ATE = Acute Toxicity Estimate
 BCF = Bioconcentration Factor
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals
 HPR = Hazardous Products Regulations
 IATA = International Air Transport Association
 IBC = Intermediate Bulk Container
 IMDG = International Maritime Dangerous Goods
 LogPow = logarithm of the octanol/water partition coefficient
 MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
 N/A = Not available
 SGG = Segregation Group
 UN = United Nations

Procedure used to derive the classification

Classification	Justification
AQUATIC HAZARD (ACUTE) - Category 3	Calculation method
AQUATIC HAZARD (LONG-TERM) - Category 3	Calculation method

Indicates information that has changed from previously issued version.

Notice to reader

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