

SAFETY DATA SHEET



QUADREX 40

Section 1. Identification

GHS product identifier : QUADREX 40
Product code : 301946175322
Other means of identification : Not available.
Product type : Liquid.

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

Identified uses	
Lubricating Oil Synthetic	
Uses advised against	Reason
None known.	

Supplier's details : Calumet Branded Products, LLC
1060 N Capitol Ave Suite 6-401
Indianapolis, IN 46204
USA
Technical Services:317-328-5660

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

Section 2. Hazards identification

OSHA/HCS status : While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

Classification of the substance or mixture : AQUATIC HAZARD (ACUTE) - Category 2
AQUATIC HAZARD (LONG-TERM) - Category 3
Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 1.2%

GHS label elements

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

Precautionary statements

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.

Hazards not otherwise classified : None known.

Section 3. Composition/information on ingredients

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

Ingredient name	%	CAS number
Distillates (petroleum), hydrotreated heavy paraffinic	≥50 - ≤75	64742-54-7
Dec-1-ene, homopolymer, hydrogenated	≤10	68037-01-4
Distillates (petroleum), solvent-refined heavy paraffinic	≤4.8	64741-88-4
Distillates (petroleum), solvent-refined light paraffinic	≤4.8	64741-89-5
Residual oils (petroleum), solvent deasphalted	≤4.8	64741-95-3
Distillates (petroleum), solvent-refined heavy naphthenic A complex combination of hydrocarbons obtained as the raffinate from a solvent extraction process. It consists of hydrocarbons having carbon numbers predominantly in the range of C20 through C50 and produces a finished oil with a viscosity of at least 100 SUS at 100 °F (19cSt at 40 °C). It contains relatively few normal paraffins.	≤5	64741-96-4
Residual oils (petroleum), hydrotreated	≤1.6	64742-57-0
triphenyl phosphate	≤0.3	115-86-6
triphenyl phosphite	≤0.3	101-02-0
Phenol, dodecyl-, branched	≤0.1	121158-58-5

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

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.

Section 4. First aid measures

- 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 toxic to aquatic life. 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

- 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.

Section 6. Accidental release measures

- 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	ACGIH TLV (United States, 1/2022). [Mineral Oil, pure, highly and severely refined] TWA: 5 mg/m ³ 8 hours. Form: Inhalable fraction OSHA PEL (United States, 5/2018). [Oil mist, mineral] TWA: 5 mg/m ³ 8 hours. NIOSH REL (United States, 10/2020). [OIL MIST MINERAL] TWA: 5 mg/m ³ 10 hours. Form: Mist STEL: 10 mg/m ³ 15 minutes. Form: Mist
Dec-1-ene, homopolymer, hydrogenated Distillates (petroleum), solvent-refined heavy paraffinic	None. ACGIH TLV (United States, 1/2022). [Mineral Oil, pure, highly and severely refined] TWA: 5 mg/m ³ 8 hours. Form: Inhalable fraction OSHA PEL (United States, 5/2018). [Oil mist, mineral] TWA: 5 mg/m ³ 8 hours. NIOSH REL (United States, 10/2020). [OIL MIST MINERAL] TWA: 5 mg/m ³ 10 hours. Form: Mist STEL: 10 mg/m ³ 15 minutes. Form: Mist

Section 8. Exposure controls/personal protection

Distillates (petroleum), solvent-refined light paraffinic

ACGIH TLV (United States, 1/2022).
[Mineral Oil, pure, highly and severely refined]

TWA: 5 mg/m³ 8 hours. Form: Inhalable fraction

OSHA PEL (United States, 5/2018). [Oil mist, mineral]

TWA: 5 mg/m³ 8 hours.

NIOSH REL (United States, 10/2020). [OIL MIST MINERAL]

TWA: 5 mg/m³ 10 hours. Form: Mist

STEL: 10 mg/m³ 15 minutes. Form: Mist

ACGIH TLV (United States, 1/2022).
[Mineral Oil, pure, highly and severely refined]

TWA: 5 mg/m³ 8 hours. Form: Inhalable fraction

OSHA PEL (United States, 5/2018). [Oil mist, mineral]

TWA: 5 mg/m³ 8 hours.

NIOSH REL (United States, 10/2020). [OIL MIST MINERAL]

TWA: 5 mg/m³ 10 hours. Form: Mist

STEL: 10 mg/m³ 15 minutes. Form: Mist

ACGIH TLV (United States, 1/2022).
[Mineral Oil, pure, highly and severely refined]

TWA: 5 mg/m³ 8 hours. Form: Inhalable fraction

OSHA PEL (United States, 5/2018). [Oil mist, mineral]

TWA: 5 mg/m³ 8 hours.

NIOSH REL (United States, 10/2020). [OIL MIST MINERAL]

TWA: 5 mg/m³ 10 hours. Form: Mist

STEL: 10 mg/m³ 15 minutes. Form: Mist

ACGIH TLV (United States, 1/2022).
[Mineral Oil, pure, highly and severely refined]

TWA: 5 mg/m³ 8 hours. Form: Inhalable fraction

OSHA PEL (United States, 5/2018). [Oil mist, mineral]

TWA: 5 mg/m³ 8 hours.

NIOSH REL (United States, 10/2020). [OIL MIST MINERAL]

TWA: 5 mg/m³ 10 hours. Form: Mist

STEL: 10 mg/m³ 15 minutes. Form: Mist

ACGIH TLV (United States, 1/2022).

TWA: 3 mg/m³ 8 hours.

OSHA PEL 1989 (United States, 3/1989).

TWA: 3 mg/m³ 8 hours.

NIOSH REL (United States, 10/2020).

TWA: 3 mg/m³ 10 hours.

OSHA PEL (United States, 5/2018).

TWA: 3 mg/m³ 8 hours.

CAL OSHA PEL (United States, 5/2018).
Absorbed through skin.

TWA: 3 mg/m³ 8 hours.

None.

None.

Residual oils (petroleum), solvent deasphalted

Distillates (petroleum), solvent-refined heavy naphthenic A complex combination of hydrocarbons obtained as the raffinate from a solvent extraction process. It consists of hydrocarbons having carbon numbers predominantly in the range of C20 through C50 and produces a finished oil with a viscosity of at least 100 SUS at 100 °F (19cSt at 40 °C). It contains relatively few normal paraffins.

Residual oils (petroleum), hydrotreated

triphenyl phosphate

triphenyl phosphite
Phenol, dodecyl-, branched

Section 8. Exposure controls/personal protection

Biological exposure indices

No exposure indices 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

- 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** : Purple.
- Odor** : Not available.
- 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** : Closed cup: 252°C (485.6°F)
- Evaporation rate** : Not available.
- Flammability** : Not available.

Section 9. Physical and chemical properties and safety characteristics

Lower and upper explosion limit/flammability limit : Not available.

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 : Not available.

Density : 0.8972 g/cm³

Solubility(ies) : Not available.

Solubility in water : Not available.

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

Ingredient name	°C	°F	Method
Dec-1-ene, homopolymer, hydrogenated	343 to 369	649.4 to 696.2	ASTM D 2159

Decomposition temperature : Not available.

Viscosity : Kinematic (40°C (104°F)): 125.7 mm²/s (125.7 cSt)

Flow time (ISO 2431) : Not available.

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
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	-
Dec-1-ene, homopolymer, hydrogenated	LC50 Inhalation Dusts and mists	Rat	>5.2 mg/l	4 hours
	LD50 Dermal	Rat	>2000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
Distillates (petroleum), solvent-refined heavy	LC50 Inhalation Dusts and mists	Rat - Male, Female	2.18 mg/l	4 hours

Section 11. Toxicological information

paraffinic	LD50 Dermal	Rat	>2000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
Distillates (petroleum), solvent-refined light paraffinic	LC50 Inhalation Dusts and mists	Rat	>5.53 mg/l	4 hours
	LD50 Dermal	Rat	>2000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
Residual oils (petroleum), solvent deasphalted	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-refined heavy naphthenic A complex combination of hydrocarbons obtained as the raffinate from a solvent extraction process. It consists of hydrocarbons having carbon numbers predominantly in the range of C20 through C50 and produces a finished oil with a viscosity of at least 100 SUS at 100 °F (19cSt at 40 °C). It contains relatively few normal paraffins.	LD50 Dermal	Rabbit	>5000 mg/kg	-
triphenyl phosphate	LD50 Oral	Rat	>5000 mg/kg	-
	LD50 Dermal	Rabbit	>7900 mg/kg	-
triphenyl phosphite	LD50 Oral	Rat	3500 mg/kg	-
	LD50 Oral	Rat	444 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
triphenyl phosphite	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 mg	-
	Skin - Severe irritant	Human	-	48 hours 125 mg	-
	Skin - Severe irritant	Rabbit	-	500 mg	-

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Section 11. Toxicological information

Name	Category	Route of exposure	Target organs
Distillates (petroleum), solvent-refined heavy naphthenic A complex combination of hydrocarbons obtained as the raffinate from a solvent extraction process. It consists of hydrocarbons having carbon numbers predominantly in the range of C20 through C50 and produces a finished oil with a viscosity of at least 100 SUS at 100 °F (19cSt at 40 °C). It contains relatively few normal paraffins.	Category 1	-	adrenal, bone marrow, kidneys, liver, lymphatic system, stomach, thymus
triphenyl phosphite	Category 2	inhalation	-

Aspiration hazard

Name	Result
Dec-1-ene, homopolymer, hydrogenated	ASPIRATION HAZARD - Category 1
Distillates (petroleum), solvent-refined heavy paraffinic	ASPIRATION HAZARD - Category 1
Distillates (petroleum), solvent-refined light paraffinic	ASPIRATION HAZARD - Category 1
Residual oils (petroleum), hydrotreated	ASPIRATION HAZARD - Category 1

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

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.
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

Section 11. Toxicological information

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
QUADREX 40	N/A	2912.1	N/A	N/A	67.8
Distillates (petroleum), hydrotreated heavy paraffinic	N/A	2500	N/A	N/A	5.7
Dec-1-ene, homopolymer, hydrogenated	N/A	2500	N/A	N/A	N/A
Distillates (petroleum), solvent-refined heavy paraffinic	N/A	2500	N/A	N/A	2.18
Distillates (petroleum), solvent-refined light paraffinic	N/A	2500	N/A	N/A	N/A
Residual oils (petroleum), solvent deasphalted	N/A	2500	N/A	N/A	5.7
Residual oils (petroleum), hydrotreated	N/A	2500	N/A	N/A	N/A
triphenyl phosphate	3500	N/A	N/A	N/A	N/A
triphenyl phosphite	444	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
	Acute IC50 >100 mg/l	Algae	72 hours
Distillates (petroleum), solvent-refined heavy paraffinic	Acute LC50 >100 mg/l	Fish	96 hours
	Acute EC50 >100 mg/l	Algae	72 hours
Distillates (petroleum), solvent-refined light paraffinic	Acute EC50 >100 mg/l	Daphnia	48 hours
	Acute LC50 >100 mg/l	Fish	96 hours
Residual oils (petroleum), solvent deasphalted	Acute EC50 >100 mg/l	Algae	72 hours
	Acute EC50 >100 mg/l	Crustaceans	48 hours
triphenyl phosphate	Acute LC50 >100 mg/l	Fish	96 hours
	Acute EC50 225 µg/l Fresh water	Fish - <i>Oncorhynchus mykiss</i> - Fingerling	96 hours
triphenyl phosphite	Acute LC50 320 to 560 µg/l Marine water	Crustaceans - <i>Americamysis bahia</i>	48 hours
	Acute LC50 0.09 mg/l Fresh water	Daphnia - <i>Daphnia magna</i> - Neonate	48 hours
Phenol, dodecyl-, branched	Chronic NOEC 0.01 mg/l	Algae - <i>Chlorella vulgaris</i>	3 days
	Chronic NOEC 50 µg/l Fresh water	Daphnia - <i>Daphnia magna</i> - Neonate	21 days
	Chronic NOEC 131 ng/L Fresh water	Fish - <i>Oryzias latipes</i> - Larvae	103 days
	EC50 0.94 mg/l	Daphnia	2 days
	EC50 0.037 mg/l	Daphnia	2 days
	LC50 40 mg/l	Fish	4 days
	NOEC 0.0037 mg/l	Daphnia	21 days

Persistence and degradability

Section 12. Ecological information

Product/ingredient name	Test	Result	Dose	Inoculum
triphenyl phosphite	OECD 301D Ready Biodegradability - Closed Bottle Test	0.14 % - 28 days	-	-
Phenol, dodecyl-, branched	- OECD 301B Ready Biodegradability - CO ₂ Evolution Test	56 % - Not readily - 10 days 25 % - 28 days	- -	- -

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Distillates (petroleum), hydrotreated heavy paraffinic	-	-	Not readily
Distillates (petroleum), solvent-refined heavy paraffinic	-	-	Inherent
Distillates (petroleum), solvent-refined light paraffinic	-	-	Inherent
Residual oils (petroleum), solvent deasphalted	-	-	Inherent
triphenyl phosphite	-	-	Not readily
Phenol, dodecyl-, branched	-	-	Not readily

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Distillates (petroleum), hydrotreated heavy paraffinic	>6	-	High
Dec-1-ene, homopolymer, hydrogenated	>6.5	-	High
Distillates (petroleum), solvent-refined heavy paraffinic	3.9 to 6	-	High
Residual oils (petroleum), solvent deasphalted	>6	-	High
triphenyl phosphate	4.63	144	Low
triphenyl phosphite	6.62	-	High
Phenol, dodecyl-, branched	6.1	1601	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.

Section 13. Disposal considerations

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

U.S. Federal regulations : **TSCA 8(a) PAIR:** naphthalene
TSCA 8(a) CDR Exempt/Partial exemption: Not determined
Clean Water Act (CWA) 307: zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate)

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Not listed

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : Not applicable.

Composition/information on ingredients

Name	%	Classification
Dec-1-ene, homopolymer, hydrogenated	≤10	ASPIRATION HAZARD - Category 1
Distillates (petroleum), solvent-refined heavy paraffinic	≤4.8	ACUTE TOXICITY (inhalation) - Category 4 ASPIRATION HAZARD - Category 1
Distillates (petroleum), solvent-refined light paraffinic	≤4.8	ASPIRATION HAZARD - Category 1
Distillates (petroleum), solvent-refined heavy naphthenic A	≤5	CARCINOGENICITY - Category 1B TOXIC TO REPRODUCTION - Category 2 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1
complex combination of hydrocarbons obtained as the raffinate from a solvent extraction process. It consists of hydrocarbons having carbon numbers predominantly in the		

Section 15. Regulatory information

range of C20 through C50 and produces a finished oil with a viscosity of at least 100 SUS at 100 °F (19cSt a 40 °C). It contains relatively few normal paraffins. Residual oils (petroleum), hydrotreated	≤1.6	ASPIRATION HAZARD - Category 1
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SARA 313

	Product name	CAS number	%
Form R - Reporting requirements	chrysene benzo[j]fluoranthene	218-01-9 205-82-3	<0.1 ≤0.1
Supplier notification	chrysene benzo[j]fluoranthene	218-01-9 205-82-3	<0.1 ≤0.1

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

State regulations

- Massachusetts** : The following components are listed: OIL MIST, MINERAL; MINERAL OIL, PETROLEUM DISTILLATES, SOLVENT-REFINED LIGHT PARAFFINIC; OIL MIST, MINERAL; OIL MIST, MINERAL; OIL MIST, MINERAL
- New York** : None of the components are listed.
- New Jersey** : None of the components are listed.
- Pennsylvania** : None of the components are listed.

California Prop. 65

⚠ WARNING: This product can expose you to Di-isodecyl phthalate, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.
Information provided is based on industrial use and may not be relevant to consumer applications.

Ingredient name	Concentration (%)	No significant risk level	Maximum acceptable dosage level
Di-isodecyl phthalate	5.4	-	Yes.

International lists

National inventory

- Australia** : All components are listed or exempted.
- Canada** : All components are listed or exempted.
- China** : Not determined.
- Eurasian Economic Union** : **Russian Federation inventory:** Not determined.
- New Zealand** : At least one component is not listed.
- 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** : Not determined.

Section 16. Other information

National Fire Protection Association (U.S.A.)



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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

Procedure used to derive the classification

Classification	Justification
AQUATIC HAZARD (ACUTE) - Category 2	Calculation method
AQUATIC HAZARD (LONG-TERM) - Category 3	Calculation method

History

Date of issue/Date of revision : 09/12/2024

Date of previous issue : 07/31/2023

Version : 8.01

Key to abbreviations

ATE = Acute Toxicity Estimate
 BCF = Bioconcentration Factor
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals
 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

Indicates information that has changed from previously issued version.

Notice to reader

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.