SAFETY DATA SHEET

Section 1. Identification

GHS product identifier : CITGO KOOLBLADE Saw Guide Oil, ISO 100

Synonyms : Lubricating oil

Material uses : Lubricating oil

Code : 638155001

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

Not applicable.

Supplier's details : CITGO Petroleum Corporation
P.O. Box 4689
Houston, TX 77210
sdsvend@citgo.com

Emergency telephone number (with hours of operation) : Technical Contact: (800) 248-4684
Medical Emergency: (832) 486-4700
CHEMTREC Emergency: (800) 424-9300
(United States Only)

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : TOXIC TO REPRODUCTION - Category 1B
AQUATIC HAZARD (ACUTE) - Category 2
AQUATIC HAZARD (LONG-TERM) - Category 2

GHS label elements

Hazard pictograms :

Signal word : Danger

Hazard statements : May damage fertility or the unborn child.
Toxic to aquatic life with long lasting effects.

Precautionary statements

General : Keep out of reach of children.

Prevention : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing and eye or face protection. Avoid release to the environment. Do not get in eyes, on skin, or on clothing.

Response : Collect spillage. IF exposed or concerned: Get medical advice or attention. Wash with plenty of soap and water or use a recognized skin cleanser.

Storage : Store in accordance with all local, regional, national and international regulations. Store locked up. Store in a dry place and a closed container. Empty containers may contain material residues which can ignite with explosive force. Misuse of empty containers can be dangerous if used to store toxic, flammable, or reactive materials. Cutting or welding of empty containers can cause fire, explosion, or release of toxic fumes from residues. Do not pressurize or expose empty containers to open flame, sparks, or heat. Keep container closed and drum bungs in place. All label warnings and precautions must be observed. Return empty drums to a qualified reconditioner. Consult appropriate federal, state and local authorities before reusing, reconditioning, reclaiming, recycling, or disposing of empty containers and/or waste residues of this material.

Section 2. Hazards identification

Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations. Don't Pollute. Conserve Resources. Return used oil to collection centers.

Hazards not otherwise classified : None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Other means of identification : Lubricating oil

CAS number/other identifiers

CAS number : Not applicable.

Ingredient name	%	CAS number
Distillates (petroleum), hydrotreated heavy paraffinic	≥90	64742-54-7
Residual oils (petroleum), solvent-dewaxed	≥50 - ≤75	64742-62-7
Distillates (petroleum), solvent-dewaxed heavy paraffinic	≥50 - ≤75	64742-65-0
Distillates (petroleum), solvent-dewaxed light paraffinic	≥50 - ≤57	64742-56-9
Distillates (petroleum), hydrotreated heavy naphthenic	≥50 - ≤75	64742-52-5
Distillates (petroleum), solvent-refined heavy paraffinic	≥50 - ≤75	64742-65-0, 64742-54-7
Distillates (petroleum), solvent-refined light paraffinic	≥25 - ≤50	64741-89-5
Residual oils (petroleum,) solvent-refined	≥25 - ≤50	64742-01-4
Distillates (petroleum), hydrotreated light paraffinic	≥25 - ≤47	64742-55-8
Distillates, petroleum, hydrotreated, light naphthenic	≥25 - ≤50	64742-53-6
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based	≤10	72623-87-1
1-Dodecene, polymer with 1-decene and 1-octene, hydrogenated	≤1.7	163149-28-8
Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts	≤3	68649-42-3
phenol, (tetrapropenyl) deriva-tives	≤0.3	74499-35-7
Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts	≤0.1	68457-79-4
Lead	≤0.0067	7439-92-1

* = Various ** = Mixture *** = Proprietary

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

Skin contact : Wash skin thoroughly with soap and water or use recognized skin cleanser. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Section 4. First aid measures

Ingestion : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. 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.

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 : Defatting to the skin. May cause skin dryness and irritation.

Ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact : No specific data.

Inhalation : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations

Skin contact : Adverse symptoms may include the following:
irritation
dryness
cracking
reduced fetal weight
increase in fetal deaths
skeletal malformations

Ingestion : No specific data.

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

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments : Treat symptomatically and supportively.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. If it is suspected that gas or vapor is still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use caution when applying carbon dioxide in confined spaces. SMALL FIRE: Steam, CO_2, dry chemical or inert gas (e.g., nitrogen). LARGE FIRE: Use foam, water fog or water spray. Water fog and spray are effective in cooling containers and adjacent structures. However, water can cause frothing and/or may not extinguish the fire. Water can be used to cool the external walls of vessels to prevent excessive pressure, ignition or explosion.

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 with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Section 5. Fire-fighting measures

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
sulfur oxides
phosphorus oxides
halogenated compounds
metal oxide/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. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. 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. Collect spillage.

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). Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Avoid release to the environment. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. 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.

Section 7. Handling and storage

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. 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 unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Bulk Storage Conditions: Maintain all storage tanks in accordance with applicable regulations. Use necessary controls to monitor tank inventories. Inspect all storage tanks on a periodic basis. Test tanks and associated piping for tightness. Maintain the automatic leak detection devices to assure proper working condition.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Distillates (petroleum), hydrotreated heavy paraffinic	**OSHA PEL (United States, 5/2018). [Oil mist, mineral]** TWA: 5 mg/m³ 8 hours. **ACGIH TLV (United States, 1/2023). [Mineral Oil, pure, highly and severely refined]** TWA: 5 mg/m³ 8 hours. Form: Inhalable fraction **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
Residual oils (petroleum), solvent-dewaxed	**ACGIH TLV (United States, 1/2023). [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
Distillates (petroleum), solvent-dewaxed heavy paraffinic	**OSHA PEL (United States, 5/2018). [Oil mist, mineral]** TWA: 5 mg/m³ 8 hours. **ACGIH TLV (United States, 1/2023). [Mineral Oil, pure, highly and severely refined]** TWA: 5 mg/m³ 8 hours. Form: Inhalable fraction **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
Distillates (petroleum), solvent-dewaxed light paraffinic	**ACGIH TLV (United States, 1/2023).**

Section 8. Exposure controls/personal protection

	[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
Distillates (petroleum), hydrotreated heavy naphthenic	**OSHA PEL (United States, 5/2018). [Oil mist, mineral]** TWA: 5 mg/m³ 8 hours. **ACGIH TLV (United States, 1/2023). [Mineral Oil, pure, highly and severely refined]** TWA: 5 mg/m³ 8 hours. Form: Inhalable fraction **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
Distillates (petroleum), solvent-refined heavy paraffinic	**ACGIH TLV (United States, 1/2023). [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
Distillates (petroleum), solvent-refined light paraffinic	**OSHA PEL (United States, 5/2018). [Oil mist, mineral]** TWA: 5 mg/m³ 8 hours. **ACGIH TLV (United States, 1/2023). [Mineral Oil, pure, highly and severely refined]** TWA: 5 mg/m³ 8 hours. Form: Inhalable fraction **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
Residual oils (petroleum,) solvent-refined	**OSHA PEL (United States, 5/2018). [Oil mist, mineral]** TWA: 5 mg/m³ 8 hours. **ACGIH TLV (United States, 1/2023). [Mineral Oil, pure, highly and severely refined]** TWA: 5 mg/m³ 8 hours. Form: Inhalable fraction **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
Distillates (petroleum), hydrotreated light paraffinic	**OSHA PEL (United States, 5/2018). [Oil mist, mineral]**

Section 8. Exposure controls/personal protection

	TWA: 5 mg/m³ 8 hours. **ACGIH TLV (United States, 1/2023). [Mineral Oil, pure, highly and severely refined]** TWA: 5 mg/m³ 8 hours. Form: Inhalable fraction **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
Distillates, petroleum, hydrotreated, light naphthenic	**OSHA PEL (United States, 5/2018). [Oil mist, mineral]** TWA: 5 mg/m³ 8 hours. **ACGIH TLV (United States, 1/2023). [Mineral Oil, pure, highly and severely refined]** TWA: 5 mg/m³ 8 hours. Form: Inhalable fraction **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
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based	**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).** TWA: 5 mg/m **OSHA PEL (United States).** TWA: 5 mg/m³
1-Dodecene, polymer with 1-decene and 1-octene, hydrogenated	**ACGIH TLV (United States).** Inhalable Fraction: 5 mg/m³ Form: Aerosol.
Lead	**ACGIH TLV (United States, 1/2023). [Lead and inorganic compounds as Pb]** TWA: 0.05 mg/m³, (as Pb) 8 hours. **NIOSH REL (United States, 10/2020).** TWA: 0.05 mg/m³ 8 hours. **OSHA PEL (United States, 5/2018). [Lead inorganic (as Pb)]** TWA: 50 µg/m³, (as Pb) 8 hours.

Appropriate engineering controls : If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

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, vapor controls, 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.

Section 8. Exposure controls/personal protection

Eye/face protection : Safety glasses equipped with side shields are recommended as minimum protection in industrial settings. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles. 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 inhalation hazards exist, a full-face respirator may be required instead.

Skin protection

Hand protection : Avoid skin contact with liquid. Chemical-resistant 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. Leather gloves are not protective for liquid contact.

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 : Avoid skin contact with liquid. 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. Leather boots are not protective for liquid contact.

Respiratory protection : Avoid inhalation of gases, vapors, mists or dusts. Use a properly fitted, air-purifying or supplied-air respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Section 9. Physical and chemical properties

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

Appearance

Physical state : Liquid.

Color : Amber to dark amber

Odor : Mild petroleum odor

pH : Not available.

Boiling point, initial boiling point, and boiling range : Not available.

Flash point : Open cup: 240°C (464°F) [Cleveland] [Product does not sustain combustion.]

Evaporation rate : <1 (butyl acetate = 1)

Lower and upper explosive (flammable) limits : Not available.

Vapor pressure : <0.13 kPa (<1 mm Hg)

Relative vapor density : >1 [Air = 1]

Relative density : 0.88

Density lbs/gal : 7.36 lbs/gal

Density gm/cm^3 : Not available.

Gravity, °API : 30.5 @ 15C F

Solubility : Insoluble in the following materials: cold water.

Miscible with water : No.

Auto-ignition temperature : Not applicable.

Viscosity : Kinematic (40°C (104°F)): 100 mm^2/s (100 cSt)

Viscosity SUS : Estimated 463 SUS @104 F

Flow time (ISO 2431) : Not available.

Particle characteristics

Median particle size : Not applicable.

Section 10. Stability and reactivity

Reactivity : Not expected to be Explosive, Self-Reactive, Self-Heating, or an Organic Peroxide under US GHS Definition(s).

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 : Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not store with strong oxidizing agents.

Incompatible materials : Reactive or incompatible with the following materials:
oxidizing materials

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	LD50 Dermal	Rat	>5000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
Distillates (petroleum), solvent-dewaxed heavy paraffinic	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
Distillates (petroleum), solvent-dewaxed light paraffinic	LD50 Dermal	Rabbit	>2000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
Distillates (petroleum), hydrotreated heavy naphthenic	LD50 Oral	Rat	>5000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
Distillates (petroleum), solvent-refined heavy paraffinic	LD50 Dermal	Rabbit	2000 mg/kg	-
	LD50 Oral	Rat	5000 mg/kg	-
Distillates (petroleum), solvent-refined light paraffinic	LD50 Dermal	Rabbit	2000 mg/kg	-
	LD50 Oral	Rat	5000 mg/kg	-
Residual oils (petroleum,) solvent-refined	LD50 Dermal	Rabbit	>2000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
Distillates (petroleum), hydrotreated light paraffinic	LC50 Inhalation Dusts and mists	Rat	3900 mg/m³	4 hours
	LD50 Dermal	Rabbit	>2000 mg/kg	-
	LD50 Oral	Rat	5000 mg/kg	-
Distillates, petroleum, hydrotreated, light naphthenic	LD50 Oral	Rat	>5000 mg/kg	-
1-Dodecene, polymer with 1-decene and 1-octene, hydrogenated	LC50 Inhalation Dusts and mists	Rat - Male, Female	1.17 mg/l	4 hours

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	LD50 Dermal	Rat - Male, Female	>2000 mg/kg	-
	LD50 Oral	Rat - Male, Female	>5000 mg/kg	-
Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts	LD50 Dermal	Rat	>2000 mg/kg	-
	LD50 Oral	Rat	3.6 g/kg	-
	LD50 Oral	Rat	>2000 mg/kg	-

Conclusion/Summary : **Distillates (petroleum), hydrotreated heavy paraffinic**: Mineral oil mists derived from highly refined oils are reported to have low acute and sub-acute toxicities in animals. Effects from single and short-term repeated exposures to high concentrations of mineral oil mists well above applicable workplace exposure levels include lung inflammatory reaction, lipoid granuloma formation and lipoid pneumonia. In acute and sub-acute studies involving exposures to lower concentrations of mineral oil mists at or near current work place exposure levels produced no significant toxicological effects.
Distillates (petroleum), solvent-dewaxed heavy paraffinic: Mineral oil mists derived from highly refined oils are reported to have low acute and sub-acute toxicities in animals. Effects from single and short-term repeated exposures to high concentrations of mineral oil mists well above applicable workplace exposure levels include lung inflammatory reaction, lipoid granuloma formation and lipoid pneumonia. In acute and sub-acute studies involving exposures to lower concentrations of mineral oil mists at or near current work place exposure levels produced no significant toxicological effects.
Distillates (petroleum), solvent-dewaxed light paraffinic : Mineral oil mists derived from highly refined oils are reported to have low acute and sub-acute toxicities in animals. Effects from single and short-term repeated exposures to high concentrations of mineral oil mists well above applicable workplace exposure levels include lung inflammatory reaction, lipoid granuloma formation and lipoid pneumonia. In acute and sub-acute studies involving exposures to lower concentrations of mineral oil mists at or near current work place exposure levels produced no significant toxicological effects. In long term studies (up to two years) no carcinogenic effects have been reported in any animal species tested.
Distillates (petroleum), hydrotreated heavy naphthenic: Mineral oil mists derived from highly refined oils are reported to have low acute and sub-acute toxicities in animals. Effects from single and short-term repeated exposures to high concentrations of mineral oil mists well above applicable workplace exposure levels include lung inflammatory reaction, lipoid granuloma formation and lipoid pneumonia. In acute and sub-acute studies involving exposures to lower concentrations of mineral oil mists at or near current work place exposure levels produced no significant toxicological effects.
Distillates (petroleum), solvent-refined heavy paraffinic: Mineral oil mists derived from highly refined oils are reported to have low acute and sub-acute toxicities in animals. Effects from single and short-term repeated exposures to high concentrations of mineral oil mists well above applicable workplace exposure levels include lung inflammatory reaction, lipoid granuloma formation and lipoid pneumonia. In acute and sub-acute studies involving exposures to lower concentrations of mineral oil mists at or near current work place exposure levels produced no significant toxicological effects.
Distillates (petroleum), solvent-refined light paraffinic: Mineral oil mists derived from highly refined oils are reported to have low acute and sub-acute toxicities in animals. Effects from single and short-term repeated exposures to high concentrations of mineral oil mists well above applicable workplace exposure levels include lung inflammatory reaction, lipoid granuloma formation and lipoid pneumonia. In acute and sub-acute studies involving exposures to lower concentrations of mineral oil mists at or near current work place exposure levels produced no significant toxicological effects. In long term studies (up to two years) no carcinogenic effects have been reported in any animal species tested.
Residual oils (petroleum,) solvent-refined: Mineral oil mists derived from highly refined oils are reported to have low acute and sub-acute toxicities in animals. Effects from single and short-term repeated exposures to high concentrations of mineral oil mists well above applicable workplace exposure levels include lung inflammatory reaction, lipoid granuloma formation and lipoid pneumonia. In acute and sub-acute studies involving exposures to lower concentrations of mineral oil mists at or near current work place exposure levels produced no significant toxicological effects. In long term studies (up to two years) no carcinogenic effects have been reported in any animal

Section 11. Toxicological information

species tested.
Distillates (petroleum), hydrotreated light paraffinic: Mineral oil mists derived from highly refined oils are reported to have low acute and sub-acute toxicities in animals. Effects from single and short-term repeated exposures to high concentrations of mineral oil mists well above applicable workplace exposure levels include lung inflammatory reaction, lipoid granuloma formation and lipoid pneumonia. In acute and sub-acute studies involving exposures to lower concentrations of mineral oil mists at or near current work place exposure levels produced no significant toxicological effects.
Distillates (petroleum), hydrotreated light naphthenic: INHALATION (LC50) Acute: 9.6 mg/L (Female Rat).
INHALATION (LC50) Acute: 10.5 mg/L (Male Rat).
DRAIZE EYE Acute: Non-irritating (Rabbit).
DRAIZE DERMAL Acute: Mild skin irritant (Rabbit).
BUEHLER DERMAL Acute: Non-sensitizing (Guinea Pig).
28-Day DERMAL Sub-Chronic: Mild to moderate skin irritant (Rabbit & Rat).

A life-time dermal application of severely hydrotreated light naphthenic oils produced skin masses on mice which correlated with the skin irritation response levels of the test animals. Additional studies attribute these masses to a weak promotional activity. These studies indicate that light naphthenic oils are not mutagenic, tumor initiators nor complete chemical carcinogens. These materials have not been determined to be carcinogenic by IARC, NTP or OSHA.
Dec-1-ene, homopolymer, hydrogenated: Practically non-irritating to eyes. Practically non-irritating to the skin.

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Distillates, petroleum, hydrotreated, light naphthenic	Skin - Moderate irritant	Rabbit	-	24 hours 0.5 Ml	-
1-Dodecene, polymer with 1-decene and 1-octene, hydrogenated	Eyes - Redness of the conjunctivae	Rabbit	1	24 hours 0.5 ml	72 hours
	Skin - Edema	Rabbit	0.7	4 hours 0.5ml	7 days

Skin : **1-Dodecene, polymer with 1-decene and 1-octene, hydrogenated**: This product can cause mild skin irritation and inflammation.

Eyes : **1-Dodecene, polymer with 1-decene and 1-octene, hydrogenated**: Practically non-irritating to eyes.

Respiratory : No additional information.

Sensitization

Product/ingredient name	Route of exposure	Species	Result
1-Dodecene, polymer with 1-decene and 1-octene, hydrogenated	skin	Guinea pig	Not sensitizing

Skin : **1-Dodecene, polymer with 1-decene and 1-octene, hydrogenated**: Non-sensitizer to skin.

Respiratory : No additional information.

Mutagenicity

Product/ingredient name	Test	Experiment	Result
1-Dodecene, polymer with 1-decene and 1-octene, hydrogenated	EU	Experiment: In vitro Subject: Bacteria	Negative
	EU	Experiment: In vivo Subject: Mammalian-Animal	Negative

Conclusion/Summary :

Section 11. Toxicological information

1-Dodecene, polymer with 1-decene and 1-octene, hydrogenated: No mutagenic effect.

Carcinogenicity

Not available.

Conclusion/Summary : **Distillates (petroleum), solvent-refined heavy paraffinic**: In long term studies (up to two years) no carcinogenic effects have been reported in any animal species tested. **Distillates (petroleum), hydrotreated light paraffinic**: In long term studies (up to two years) no carcinogenic effects have been reported in any animal species tested.

Classification

Product/ingredient name	OSHA	IARC	NTP
Distillates (petroleum), solvent-refined heavy paraffinic	-	4	-
Distillates (petroleum), hydrotreated light paraffinic	None.	-	-
Lead	-	2B	Reasonably anticipated to be a human carcinogen.

Reproductive toxicity

Product/ingredient name	Maternal toxicity	Fertility	Development toxin	Species	Dose	Exposure
1-Dodecene, polymer with 1-decene and 1-octene, hydrogenated	Negative	Negative	Negative	Rat - Male, Female	Oral: 1000 mg/kg	-

Conclusion/Summary : **1-Dodecene, polymer with 1-decene and 1-octene, hydrogenated**: No known significant effects or critical hazards.

Teratogenicity

Not available.

Conclusion/Summary : No additional information.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
Lead	Category 1	-	central nervous system (CNS), peripheral nervous system
	Category 2	oral	blood system, kidneys

Aspiration hazard

Name	Result
Distillates (petroleum), solvent-refined light paraffinic	ASPIRATION HAZARD - Category 1
Distillates (petroleum), hydrotreated light paraffinic	ASPIRATION HAZARD - Category 1
Distillates, petroleum, hydrotreated, light naphthenic	ASPIRATION HAZARD - Category 1
1-Dodecene, polymer with 1-decene and 1-octene, hydrogenated	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure : Routes of entry anticipated: Dermal.

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : No known significant effects or critical hazards.

Skin contact : Defatting to the skin. May cause skin dryness and irritation.

Section 11. Toxicological information

Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No specific data.

Inhalation : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations

Skin contact : Adverse symptoms may include the following:
irritation
dryness
cracking
reduced fetal weight
increase in fetal deaths
skeletal malformations

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.

Teratogenicity : May damage the unborn child.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : May damage fertility.

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)
CITGO KOOLBLADE Saw Guide Oil, ISO 100	20852.3	5637.6	N/A	N/A	N/A
Distillates (petroleum), solvent-dewaxed light paraffinic	N/A	2500	N/A	N/A	N/A
Distillates (petroleum), solvent-refined heavy paraffinic	5000	N/A	N/A	N/A	N/A
Distillates (petroleum), solvent-refined light paraffinic	5000	2000	N/A	N/A	N/A
Residual oils (petroleum,) solvent-refined	N/A	2500	N/A	N/A	N/A
Distillates (petroleum), hydrotreated light paraffinic	5000	2500	N/A	N/A	N/A
1-Dodecene, polymer with 1-decene and 1-octene, hydrogenated	N/A	2500	N/A	N/A	N/A
Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts	3600	2500	N/A	N/A	N/A

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Distillates (petroleum), hydrotreated heavy naphthenic	Acute EC50 >10000 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 >100 mg/l Fresh water	Fish - Pimephales promelas	96 hours
	Acute NOEL >100 mg/l Fresh water	Algae - Pseudokirchneriella subcapitata	72 hours
1-Dodecene, polymer with 1-decene and 1-octene, hydrogenated	Acute EC50 1000 mg/l Fresh water	Crustaceans - Daphnia magna	48 hours
	Acute LC50 >1000 mg/l Fresh water	Fish - Oncorhynchus mykiss - Juvenile (Fledgling, Hatchling, Weanling)	96 hours
	Chronic NOEL 125 mg/l Fresh water	Crustaceans - Daphnia magna	21 days
Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts	EC50 21 mg/l	Algae	72 hours
	LC50 4.5 mg/m³	Fish	96 hours
Lead	Acute EC50 105 ppb Marine water	Algae - Chaetoceros sp. - Exponential growth phase	72 hours
	Acute EC50 0.489 mg/l Marine water	Algae - Ulva pertusa	96 hours
	Acute EC50 8000 µg/l Fresh water	Aquatic plants - Lemna minor	4 days
	Acute LC50 530 µg/l Fresh water	Crustaceans - Ceriodaphnia reticulata	48 hours
	Acute LC50 0.594 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 0.44 ppm Fresh water	Fish - Cyprinus carpio - Juvenile (Fledgling, Hatchling, Weanling)	96 hours
	Chronic NOEC 0.25 mg/l Marine water	Algae - Ulva pertusa	96 hours
	Chronic NOEC 0.03 µg/l Fresh water	Fish - Cyprinus carpio	4 weeks

Conclusion/Summary : **1-Dodecene, polymer with 1-decene and 1-octene, hydrogenated**: No known significant effects or critical hazards.

Persistence and degradability

Conclusion/Summary : Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Distillates (petroleum), hydrotreated heavy naphthenic	-	-	Inherent
Distillates (petroleum), solvent-refined heavy paraffinic	-	-	Inherent

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Distillates (petroleum), hydrotreated heavy naphthenic	>6	-	high
Distillates (petroleum), solvent-refined heavy paraffinic	3.9 to 6	-	high
1-Dodecene, polymer with 1-decene and 1-octene, hydrogenated	>6.5	-	high
Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts	0.69	-	low

Section 12. Ecological information

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.

RCRA classification : D018

Section 14. Transport information

	DOT Classification	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-
Transport hazard class(es)	-	-	-
Packing group	-	-	-
Environmental hazards	No.	No.	No.

Oil: The product(s) represented by this SDS is (are) regulated as “oil” under 49 CFR Part 130. Shipments by rail or highway in packaging having a capacity of 3500 gallons or more or in a quantity greater 42,000 gallons are subject to these requirements. In addition, mixtures containing 10% or more of this product may be subject to these requirements.

Additional information

DOT Classification : **Reportable quantity** 15209.4 lbs / 6905.1 kg [2072.9 gal / 7846.7 L]. Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.

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 :

United States inventory (TSCA 8b): All components are active or exempted.

Clean Water Act (CWA) 307: Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts; Phosphorodithioic acid, mixed O,O-bis(sec-Bu and isooctyl) esters, zinc salts; Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts; zinc bis(O,O-diisooctyl) bis (dithiophosphate); zinc O,O,O',O'-tetrakis(1,3-dimethylbutyl) bis(phosphorodithioate); zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate); ethylbenzene; toluene; benzene; naphthalene; Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts; lead powder; ethylbenzene; Cadmium (Non-pyrophoric); Nickel; arsenic; phenol; chrysene; benzene

Clean Water Act (CWA) 311: ethylbenzene; toluene; benzene; naphthalene; fumaric acid; methyl methacrylate; ethylenediamine; ethylbenzene; xylene; vinyl acetate; cyclohexane; maleic anhydride; Phosphoric acid; aniline; Formaldehyde, solution; phenol; ammonia, anhydrous; Hydrogen chloride; propylene oxide; Hydrogen chloride; benzene

This material is classified as an oil under Section 311 of the Clean Water Act (CWA) and the Oil Pollution Act of 1990 (OPA). Discharges or spills which produce a visible sheen on waters of the United States, their adjoining shorelines, or into conduits leading to surface waters must be reported to the EPA's National Response Center at (800) 424-8802.

SARA 302/304

Composition/information on ingredients

Name	%	EHS	SARA 302 TPQ (lbs)	SARA 302 TPQ (gallons)	SARA 304 RQ (lbs)	SARA 304 RQ (gallons)
ethylenediamine	<0.01	Yes.	10000	1337.1	5000	668.5
Sulfur dioxide	<0.01	Yes.	500	-	500	-
vinyl acetate	<0.001	Yes.	1000	129	5000	644.8
aniline	<0.0001	Yes.	1000	117.6	5000	587.9
ethylene oxide	<0.0001	Yes.	1000	-	10	-
formaldehyde	trace	Yes.	500	73.9	100	14.8
Phenol	trace	Yes.	500 / 10000	-	1000	-
Ammonia, anhydrous	trace	Yes.	500	-	100	-
hydrogen chloride	trace	Yes.	500	-	5000	-
propylene oxide	trace	Yes.	10000	1444.3	100	14.4
hydrogen chloride	trace	Yes.	500	-	5000	-

SARA 304 RQ : 27975054 lbs / 12700674.5 kg [3812685.5 gal / 14432584.7 L]

SARA 311/312

Classification : TOXIC TO REPRODUCTION - Category 1B

Composition/information on ingredients

Name	%	Classification
Distillates (petroleum), solvent-refined light paraffinic	≥25 - ≤50	ACUTE TOXICITY (dermal) - Category 4 ASPIRATION HAZARD - Category 1
Distillates (petroleum), hydrotreated light paraffinic	≥25 - ≤47	ASPIRATION HAZARD - Category 1
Distillates, petroleum, hydrotreated, light naphthenic	≥25 - ≤50	ASPIRATION HAZARD - Category 1
1-Dodecene, polymer with 1-decene and 1-octene, hydrogenated	≤1.7	ASPIRATION HAZARD - Category 1
Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts	≤3	EYE IRRITATION - Category 2A
phenol, (tetrapropenyl) derivatives	≤0.3	TOXIC TO REPRODUCTION - Category 1B

SARA 313

Section 15. Regulatory information

	Product name	CAS number	%
Form R - Reporting requirements	Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts	68649-42-3	<2
	lead powder	7439-92-1	<0.01
	chrysene	218-01-9	trace
Supplier notification	Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts	68649-42-3	<2
	lead powder	7439-92-1	<0.01
	chrysene	218-01-9	trace

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; OIL MIST, MINERAL; OIL MIST, MINERAL; OIL MIST, MINERAL; MINERAL OIL, PETROLEUM DISTILLATES, SOLVENT-DEWAXED LIGHT PARAFFINIC; OIL MIST, MINERAL; OIL MIST, MINERAL; MINERAL OIL, PETROLEUM DISTILLATES, SOLVENT-REFINED LIGHT PARAFFINIC; OIL MIST, MINERAL; MINERAL OIL, PETROLEUM DISTILLATES, HYDROTREATED LIGHT PARAFFINIC; MINERAL OIL, PETROLEUM DISTILLATES, HYDROTREATED LIGHT NAPHTHENIC; OIL MIST, MINERAL; OIL MIST, MINERAL; Polymer

New York : None of the components are listed.

New Jersey : The following components are listed: MINERAL OIL (UNTREATED and MILDLY TREATED); Polymer

Pennsylvania : The following components are listed: ETHENE, TETRAFLUORO-, HOMOPOLYMER; Polymer

California Prop. 65 Clear and Reasonable Warnings (2018)

⚠ **WARNING**: This product can expose you to chemicals including Ethylbenzene, which is known to the State of California to cause cancer, and 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.

Ingredient name	%	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level
1,2-Benzenedicarboxylic acid, di-C9-11-branched alkyl esters, C10-rich	<0.4	No.	Yes.	-	Yes.
ethylbenzene	<0.1	Yes.	No.	Yes.	-
toluene	<0.1	No.	Yes.	-	Yes.
benzene	<0.1	Yes.	Yes.	Yes.	Yes.
ethanediol	<0.1	No.	Yes.	-	Yes.
naphthalene	<0.1	Yes.	No.	Yes.	-
lead powder	<0.01	Yes.	Yes.	Yes.	Yes.
sulphur dioxide	<0.01	No.	Yes.	-	Yes.
ethylbenzene	<0.01	Yes.	No.	Yes.	-
vinyl acetate	<0.001	Yes.	No.	-	-
cumene	<0.001	Yes.	No.	-	-
1,4-dioxane	<0.001	Yes.	No.	Yes.	-
ethyl acrylate	<0.001	Yes.	No.	-	-
2-ethylhexyl acrylate	<0.001	Yes.	No.	-	-
aniline	<0.0001	Yes.	No.	Yes.	-
1-naphthylamine	<0.0001	Yes.	No.	-	-
carbon black	<0.0001	Yes.	No.	-	-
Cadmium (Non-pyrophoric)	<0.0001	Yes.	Yes.	Yes.	Yes.
Nickel	<0.0001	Yes.	No.	-	-
ethylene oxide	<0.0001	Yes.	Yes.	Yes.	Yes.
arsenic	<0.0001	Yes.	No.	Yes.	-
cobalt	<0.0001	Yes.	No.	-	-

Section 15. Regulatory information

methanol	trace	No.	Yes.	-	Yes.
Formaldehyde, solution	trace	Yes.	No.	Yes.	-
trimethyl phosphate	trace	Yes.	No.	Yes.	-
2-naphthylamine	trace	Yes.	No.	Yes.	-
chrysene	trace	Yes.	No.	Yes.	-
propylene oxide	trace	Yes.	No.	-	-
benzene	trace	Yes.	Yes.	Yes.	Yes.

International regulations

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

Inventory list

United States : All components are active or exempted.

Australia : At least one component is not listed.

Canada : All components are listed or exempted.

China : At least one component is not listed.

Japan : **Japan inventory (CSCL)**: At least one component is not listed.
Japan inventory (ISHL): At least one component is not listed.

Malaysia : Not determined

New Zealand : At least one component is not listed.

Philippines : At least one component is not listed.

Republic of Korea : At least one component is not listed.

Taiwan : Not determined.

Thailand : Not determined.

Turkey : Not determined.

Viet Nam : Not determined.

Section 16. Other information

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

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Procedure used to derive the classification

Classification	Justification
TOXIC TO REPRODUCTION - Category 1B	Calculation method
AQUATIC HAZARD (ACUTE) - Category 2	Calculation method
AQUATIC HAZARD (LONG-TERM) - Category 2	Calculation method

History

Date of printing : 2/26/2025

: 2/26/2025

Section 16. Other information

Date of issue/Date of revision

Date of previous issue : 1/16/2025

Version : 18.06

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)
UN = United Nations

References : Not available.

Indicates information that has changed from previously issued version.

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