

SAFETY DATA SHEET



Section 1. Identification

GHS product identifier : CITGO A/W 68 Mining Hydraulic Fluid
Synonyms : Hydraulic Oil
Code : 633592001

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 : 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 : Keep out of reach of children.

Prevention : Avoid release to the environment. Do not get in eyes, on skin, or on clothing.

Response : 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 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.

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 : Injection of pressurized hydrocarbons can cause severe permanent tissue damage. Initial symptoms may be minor. Injection of petroleum hydrocarbons requires immediate medical attention.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture
Other means of identification : Hydraulic Oil

CAS number/other identifiers

CAS number : Not applicable.

Ingredient name	%	CAS number
Distillates (petroleum), hydrotreated heavy paraffinic	≥50 - ≤75	64742-54-7
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based	≥10 - ≤25	72623-87-1
Residual oils (petroleum), solvent-dewaxed	≤3	64742-62-7
1-Dodecene, polymer with 1-decene and 1-octene, hydrogenated	≤3	163149-28-8
Lead	<0.0025	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. Get medical attention if irritation occurs.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing.

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. 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 if adverse health effects persist or are severe. 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 : Injection of pressurized hydrocarbons can cause severe permanent tissue damage. Initial symptoms may be minor.

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 the event of injection in underlying tissue, immediate treatment should include extensive incision, debridement and saline irrigation. Inadequate treatment can result in ischemia and gangrene. Early symptoms may be minimal.

Section 4. First aid measures

- Specific treatments** : Treat symptomatically and supportively.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

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** : None known.

- 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
sulfur oxides
phosphorus oxides
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. 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.
- 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/m ³ 8 hours. ACGIH TLV (United States, 1/2023). [Mineral Oil, pure, highly and severely refined] TWA: 5 mg/m ³ 8 hours. Form: Inhalable fraction 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
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based	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 ACGIH TLV (United States). TWA: 5 mg/m ³ OSHA PEL (United States). TWA: 5 mg/m ³

Section 8. Exposure controls/personal protection

Residual oils (petroleum), solvent-dewaxed	ACGIH TLV (United States, 1/2023). [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
1-Dodecene, polymer with 1-decene and 1-octene, hydrogenated	ACGIH TLV (United States). Inhalable Fraction: 5 mg/m ³ Form: Aerosol.
Lead	ACGIH TLV (United States, 1/2023). [Lead and inorganic compounds as Pb] TWA: 0.05 mg/m ³ , (as Pb) 8 hours. NIOSH REL (United States, 10/2020). TWA: 0.05 mg/m ³ 8 hours. OSHA PEL (United States, 5/2018). [Lead inorganic (as Pb)] TWA: 50 µg/m ³ , (as Pb) 8 hours.

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, 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.

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.

Section 8. Exposure controls/personal protection

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: 204°C (399.2°F) [Cleveland]

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

Vapor pressure :

Ingredient name	Vapor Pressure at 20°C			Vapor pressure at 50°C		
	mm Hg	kPa	Method	mm Hg	kPa	Method
Hydrogen chloride	30780.09	4103.7	OECD 104	13.05111	1.7	
Hydrogen chloride	30780.09	4103.7				
sulphur dioxide	2475.20111	330				
ethylene oxide	1314.1117	175.2				
propylene oxide	538	71.7				
cyclohexane	93.00791	12.4				
vinyl acetate	84.7572	11.3				
benzene	75.00609	10				
benzene	75.00609	10				
ammonia, anhydrous	72.30587	9.6				
1,4-dioxane	30.7525	4.1				
ethyl acrylate	30.00255	4				
methyl methacrylate	27.75236	3.7				
toluene	23.17	3.1				
water	17.5	2.3				
ethylenediamine	10.50085	1.4				
ethylbenzene	9.30076	1.2				
ethylbenzene	9.30076	1.2				
xylene	6.7	0.89				
Butene, homopolymer (products derived from either/or But-1-ene/But-2-ene)	5.10043	0.68				
cumene	3.72032	0.5				
mesitylene	2.4002	0.32				
1,2,4-trimethylbenzene	2.25018	0.3				

Solvent naphtha (petroleum), medium aliph.	1.50012 to 4.50037	0.2 to 0.6				
1,2,3-trimethylbenzene	1.35011	0.18				
cineole	0.91	0.12				
trimethyl phosphate	0.82507	0.11				
Naphtha (petroleum), hydrotreated heavy	0.75006 to 2.25018	0.1 to 0.3				
2-ethylhexan-1-ol	<0.75006	<0.1	DIN EN 13016-2			
linalyl acetate	<0.75006	<0.1				
2,4,5-trimethyl-2,4,6-tris (3,3,3-trifluoropropyl) cyclotrisiloxane	0.66	0.088				
aniline	0.30003	0.04				
maleic anhydride	0.24752	0.033				
Distillates (petroleum), hydrotreated light	0.22502 to 0.45004	0.03 to 0.06				
linalool	0.2	0.027	OECD 104			
2-ethylhexyl acrylate	0.18002	0.024				
phenol	0.15001	0.02				
citronellal	0.12001	0.016	EU A.4			
Polysulfides, di-tert-Bu	0.12	0.016	OECD 104			
ethanediol	0.09226	0.012				
White mineral oil (petroleum)	0.07501	0.01	OECD 104			
Distillates (petroleum), hydrotreated heavy paraffinic	<0.07501	<0.01	ASTM D 5191			
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based	<0.07501	<0.01	ASTM D 5191			
Residual oils (petroleum), solvent-dewaxed	<0.07501	<0.01	ASTM D 5191			
Distillates (petroleum), solvent-dewaxed heavy paraffinic	<0.07501	<0.01	ASTM D 5191			
Distillates (petroleum), hydrotreated heavy naphthenic	<0.07501	<0.01	ASTM D 5191			
Distillates (petroleum), solvent-dewaxed light paraffinic	<0.07501	<0.01	ASTM D 5191			
Paraffin oils (petroleum), catalytic dewaxed heavy	<0.07501	<0.01	ASTM D 5191			
Distillates (petroleum), hydrotreated light paraffinic	<0.07501	<0.01	ASTM D 5191			
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	<0.07501	<0.01	ASTM D 5191			
Distillates (petroleum), solvent-refined light paraffinic	<0.07501	<0.01	ASTM D 5191			

Distillates (petroleum), hydrotreated light paraffinic	<0.07501	<0.01	ASTM D 5191			
Distillates (petroleum), hydrotreated heavy paraffinic	<0.07501	<0.01	ASTM D 5191			
Residual oils (petroleum), solvent-dewaxed	<0.07501	<0.01	ASTM D 5191			
Distillates (petroleum), hydrotreated heavy naphthenic	<0.07501	<0.01	ASTM D 5191			
naphthalene	0.054	0.0072	OECD 104			
benzotriazole	0.038	0.0051				
Phosphoric acid	0.03	0.004				
Solvent naphtha (petroleum), heavy arom.	0.0225	0.003				
2,6-di-tert-butylphenol	0.01	0.0013	OECD 104			
Alkaryl amine	<0.01	<0.0013	EU A.4	0.0019	0.00025	EU A.4
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	<0.01	<0.0013	EU A.4			
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	<0.01	<0.0013	EU A.4			
1-(tert-dodecylthio) propan-2-ol	0.0047	0.00063				
1-naphthylamine	0.004	0.00053				
Dec-1-ene, homopolymer, hydrogenated	<0.0041	<0.00055	ASTM E 1194-87			
Phosphoric acid, 2-ethylhexyl ester	0.00064	0.000085	EU A.4			
triphenyl phosphite	0.00052	0.000069	EU A.4			
dodecyl methacrylate	0.00045	0.00006				
zinc O,O,O',O'-tetrakis (1,3-dimethylbutyl) bis (phosphorodithioate)	0.000082	0.000011				
Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts	0.000019	0.0000025	EU A.4	0.00017	0.000023	EU A.4
zinc bis(O,O-diisooctyl) bis(dithiophosphate)	0.000016	0.0000021				
N-1-naphthylaniline	0.0000082	0.0000011				
methyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl) propionate	0.0000046	0.0000061				
zinc bis[O,O-bis (2-ethylhexyl)] bis (dithiophosphate)	0.0000032	0.0000043	EU A.4	0.000034	0.0000045	EU A.4
1,2-Benzenedicarboxylic acid, di-C9-11-branched alkyl esters, C10-rich	0.00000038	0.000000051				
Amines, C11-14-branched alkyl, monohexyl and dihexyl phosphates	0.00000038	0.000000051				

dibutyl phosphonate	0.00000024	0.000000032				
bis(2-ethylhexyl) hydrogen phosphate	0.00000018	0.000000024				
1-Dodecene, polymer with 1-decene and 1-octene, hydrogenated	0.000000002	0.00000000027	EU A.4			
1-Decene, tetramer, mixed with 1-decene trimer, hydrogenated	0.000000002	0.00000000027	EU A.4			
1-Dodecene, polymer with 1-decene, hydrogenated	0.000000002	0.00000000027	EU A.4			
fumaric acid	0 to 0	0 to 0	OECD 104			
4,4'-methylene bis (dibutylidithiocarbamate)	<0	<0				

Relative vapor density	: Not available.
Relative density	: Not available.
Density lbs/gal	: 7.34 lbs/gal
Density gm/cm³	: Not available.
Gravity, °API	: 30.5
Auto-ignition temperature	: Lowest known value: 343°C (649.4°F) (1-Dodecene, polymer with 1-decene and 1-octene, hydrogenated).
Viscosity	: Kinematic (40°C (104°F)): 68 mm ² /s (68 cSt)
Viscosity SUS	: 340 SUS @100 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	: 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

Section 11. Toxicological information

Product/ingredient name	Result	Species	Dose	Exposure
Distillates (petroleum), hydrotreated heavy paraffinic 1-Dodecene, polymer with 1-decene and 1-octene, hydrogenated	LD50 Dermal	Rat	>5000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
	LC50 Inhalation Dusts and mists	Rat - Male, Female	1.17 mg/l	4 hours
	LD50 Dermal	Rat - Male, Female	>2000 mg/kg	-
	LD50 Oral	Rat - Male, Female	>5000 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.

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

Carcinogenicity

Not available.

Conclusion/Summary : No additional information.

Classification

Section 11. Toxicological information

Product/ingredient name	OSHA	IARC	NTP
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
1-Dodecene, polymer with 1-decene and 1-octene, hydrogenated	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 : Injection of pressurized hydrocarbons can cause severe permanent tissue damage. Initial symptoms may be minor.
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

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	: No known significant effects or critical hazards.
Developmental effects	: No known significant effects or critical hazards.
Fertility effects	: No known significant effects or critical hazards.

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 A/W 68 Mining Hydraulic Fluid	N/A	56533.0	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

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
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
	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.

Conclusion/Summary : Not available.

Bioaccumulative potential

Section 12. Ecological information

Product/ingredient name	LogP _{ow}	BCF	Potential
1-Dodecene, polymer with 1-decene and 1-octene, hydrogenated	>6.5	-	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.

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.

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 listed or exempted.
- Clean Water Act (CWA) 307**: zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate); 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); Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts; toluene; Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts; lead powder; benzene; ethylbenzene; naphthalene; Cadmium (Non-pyrophoric); phenol; chrysene; Nickel; ethylbenzene; benzene
- Clean Water Act (CWA) 311**: fumaric acid; toluene; ethylenediamine; methyl methacrylate; benzene; ethylbenzene; xylene; vinyl acetate; maleic anhydride; naphthalene; Phosphoric acid; cyclohexane; aniline; phenol; ammonia, anhydrous; Hydrogen chloride; ethylbenzene; Hydrogen chloride; benzene; propylene oxide
- 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

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : HNOC - Injection Hazards

Composition/information on ingredients

Name	%	Classification
1-Dodecene, polymer with 1-decene and 1-octene, hydrogenated	≤3	ASPIRATION HAZARD - Category 1 HNOC - Injection Hazards

SARA 313


	Product name	CAS number	%
Supplier notification	lead powder chrysene	7439-92-1 218-01-9	<0.01 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; OIL MIST, MINERAL; OIL MIST, MINERAL
- New York** : None of the components are listed.
- New Jersey** : The following components are listed: MINERAL OIL (UNTREATED and MILDLY TREATED)
- Pennsylvania** : None of the components are listed.

California Prop. 65 Clear and Reasonable Warnings (2018)

 **WARNING:** This product can expose you to chemicals including Lead, 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.

Section 15. Regulatory information

Ingredient name	%	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level
1,2-Benzenedicarboxylic acid, di-C9-11-branched alkyl esters, C10-rich	<0.5	No.	Yes.	-	Yes.
toluene	<0.01	No.	Yes.	-	Yes.
ethanediol	<0.01	No.	Yes.	-	Yes.
lead powder	<0.01	Yes.	Yes.	Yes.	Yes.
benzene	<0.001	Yes.	Yes.	Yes.	Yes.
ethyl acrylate	<0.001	Yes.	No.	-	-
2-ethylhexyl acrylate	<0.001	Yes.	No.	-	-
sulphur dioxide	<0.001	No.	Yes.	-	Yes.
ethylbenzene	<0.001	Yes.	No.	Yes.	-
cumene	<0.001	Yes.	No.	-	-
naphthalene	<0.0001	Yes.	No.	Yes.	-
aniline	trace	Yes.	No.	Yes.	-
1-naphthylamine	trace	Yes.	No.	-	-
Cadmium (Non-pyrophoric)	trace	Yes.	Yes.	Yes.	Yes.
chrysene	trace	Yes.	No.	Yes.	-
Nickel	trace	Yes.	No.	-	-
2-naphthylamine	trace	Yes.	No.	Yes.	-
trimethyl phosphate	trace	Yes.	No.	Yes.	-
ethylbenzene	trace	Yes.	No.	Yes.	-
benzene	trace	Yes.	Yes.	Yes.	Yes.
ethylene oxide	trace	Yes.	Yes.	Yes.	Yes.
propylene oxide	trace	Yes.	No.	-	-
1,4-dioxane	trace	Yes.	No.	Yes.	-

International regulations

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

Inventory list

United States	: All components are listed 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
AQUATIC HAZARD (LONG-TERM) - Category 3	Calculation method

History

Date of printing : 1/2/2024

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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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