



SAFETY DATA SHEET
Valvoline™ European Vehicle SAE 5W-40
Synthetic Motor Oil

Version: 1.10

Revision Date: 11/08/2022

Print Date:
02/20/2023

SECTION 1. IDENTIFICATION

Product name : Valvoline™ European Vehicle SAE 5W-40
Synthetic Motor Oil

Product code : 881166

Manufacturer or supplier's details

Company name of supplier : Valvoline LLC

Address : 100 Valvoline Way
Lexington, KY 40509
United States of America (USA)

Telephone : 1-800-TEAMVAL (1-800-832-6825)

E-mail address : SDS@valvoline.com

Emergency telephone : +1-800-VALVOLINE (+1-800-825-8654)
number

Recommended use of the chemical and restrictions on use

Recommended use : lubricant

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Not a hazardous substance or mixture.

GHS label elements

Not a hazardous substance or mixture.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture



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Components

Chemical name	CAS-No.	Concentration (% w/w)
DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC	64742-54-7	$\geq 70 - < 80$
DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC	64742-54-7	$\geq 1.5 - < 5$
LUBRICATING OILS, PETROLEUM, C20-50, HYDROTREATED	72623-87-1	$\geq 1.5 - < 5$
DISTILLATES (PETROLEUM), SOLVENT-DEWAXED HEAVY PARAFFINIC	64742-65-0	$\geq 1 - < 1.5$
CATALYTIC DE WAXED HEAVY PARAFFINIC OIL (PETROLEUM)	64742-70-7	$\geq 1 - < 1.5$
Distillates (Petroleum), Hydrotreated Heavy Paraffinic	64742-54-7	$\geq 1 - < 1.5$
Distillates (petroleum), solvent- dewaxed light paraffinic	64742-56-9	$\geq 1 - < 1.5$
C14-16-18 Alkyl phenol	Not Assigned	$\geq 1 - < 1.5$
DITHIOPHOSPHORIC ACID, O,O'- DIISOCTYL ESTER, ZINC SALT	28629-66-5	$\geq 1 - < 1.5$

Actual concentration is withheld as a trade secret

SECTION 4. FIRST AID MEASURES

- General advice : Move out of dangerous area.
Show this safety data sheet to the doctor in attendance.
Do not leave the victim unattended.
- If inhaled : If unconscious, place in recovery position and seek medical advice.
If symptoms persist, call a physician.
- In case of skin contact : If skin irritation persists, call a physician.
If on skin, rinse well with water.
If on clothes, remove clothes.
- In case of eye contact : Flush eyes with water as a precaution.
Remove contact lenses.
Protect unharmed eye.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.
- If swallowed : Keep respiratory tract clear.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.



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If symptoms persist, call a physician.
Take victim immediately to hospital.

Most important symptoms and effects, both acute and delayed : May cause damage to organs through prolonged or repeated exposure.
No symptoms known or expected.

Notes to physician : Treat symptomatically.

No hazards which require special first aid measures.

SECTION 5. FIREFIGHTING MEASURES

Unsuitable extinguishing media : High volume water jet

Hazardous combustion products : carbon dioxide and carbon monoxide
Nitrogen oxides (NOx)

Further information : Standard procedure for chemical fires.
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.

Environmental precautions : Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so.
If the product contaminates rivers and lakes or drains inform respective authorities.

Methods and materials for containment and cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion : Normal measures for preventive fire protection.



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- Advice on safe handling : Do not breathe vapours/dust.
Avoid contact with skin and eyes.
For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.
Dispose of rinse water in accordance with local and national regulations.
- Conditions for safe storage : Keep container tightly closed in a dry and well-ventilated place.
Electrical installations / working materials must comply with the technological safety standards.
- Further information on storage stability : No decomposition if stored and applied as directed.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC	64742-54-7	TWA (Mist)	5 mg/m3	OSHA Z-1
		TWA (Inhalable particulate matter)	5 mg/m3	ACGIH
DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC	64742-54-7	TWA (Mist)	5 mg/m3	OSHA Z-1
		TWA (Inhalable particulate matter)	5 mg/m3	ACGIH
LUBRICATING OILS, PETROLEUM, C20-50, HYDROTREATED	72623-87-1	TWA (Inhalable particulate matter)	5 mg/m3	ACGIH
		TWA (Mist)	5 mg/m3	OSHA Z-1
		TWA (Mist)	5 mg/m3	OSHA P0
		TWA (Mist)	5 mg/m3	NIOSH REL
		ST (Mist)	10 mg/m3	NIOSH REL
DISTILLATES (PETROLEUM),	64742-65-0	TWA (Mist)	5 mg/m3	OSHA Z-1



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SOLVENT-DEWAXED HEAVY PARAFFINIC				
		TWA (Inhalable particulate matter)	5 mg/m3	ACGIH
CATALYTIC DE WAXED HEAVY PARAFFINIC OIL (PETROLEUM)	64742-70-7	TWA (Mist)	5 mg/m3	OSHA Z-1
Distillates (Petroleum), Hydrotreated Heavy Paraffinic	64742-54-7	TWA (Mist)	5 mg/m3	OSHA Z-1
		TWA (Inhalable particulate matter)	5 mg/m3	ACGIH
Distillates (petroleum), solvent- dewaxed light paraffinic	64742-56-9	TWA (Mist)	5 mg/m3	OSHA Z-1
		TWA (Inhalable particulate matter)	5 mg/m3	ACGIH

Personal protective equipment

Respiratory protection : No personal respiratory protective equipment normally required.

Hand protection

Remarks : The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Eye protection : Eye wash bottle with pure water
Tightly fitting safety goggles

Skin and body protection : Impervious clothing
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures : When using do not eat or drink.
When using do not smoke.
Wash hands before breaks and at the end of workday.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid

Colour : amber



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Odour	: mild
Odour Threshold	: No data available
pH	: No data available
Melting point/freezing point	: No data available
Boiling point/boiling range	: > 424 °F / 218 °C (1013 hPa)
Flash point	: > 390 °F / > 199 °C Method: Pensky-Martens closed cup
Evaporation rate	: No data available
Flammability (solid, gas)	: No data available
Self-ignition	: No data available
Upper explosion limit / Upper flammability limit	: 6 %(V) Calculated Explosive Limit
Lower explosion limit / Lower flammability limit	: 1 %(V) Calculated Explosive Limit
Vapour pressure	: 1.3333333 hPa (68 °F / 20 °C) Calculated Vapor Pressure
Relative vapour density	: No data available
Relative density	: No data available
Density	: 0.8520 g/cm ³ (60.01 °F / 15.56 °C)
Solubility(ies)	
Water solubility	: No data available
Solubility in other solvents	: No data available
Partition coefficient: n-octanol/water	: No data available
Decomposition temperature	: No data available
Viscosity	
Viscosity, dynamic	: No data available



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Viscosity, kinematic : ca. 115 mm²/s (104 °F / 40 °C)
Oxidizing properties : No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity : No decomposition if stored and applied as directed.
Chemical stability : No decomposition if stored and applied as directed.
Possibility of hazardous reactions : No decomposition if stored and applied as directed.
Conditions to avoid : excessive heat
Incompatible materials : Strong bases
Strong oxidizing agents
Hazardous decomposition products : No hazardous decomposition products are known.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Not classified based on available information.

Components:

DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC:

Acute oral toxicity : LD50 (Rat): > 15 g/kg
Acute dermal toxicity : LD50 (Rabbit): > 5 g/kg

DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC:

Acute oral toxicity : LD50 (Rat): > 15 g/kg
Acute dermal toxicity : LD50 (Rabbit): > 5 g/kg

LUBRICATING OILS, PETROLEUM, C20-50, HYDROTREATED:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg
Acute inhalation toxicity : LC50 (Rat): > 5.58 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Assessment: The substance or mixture has no acute inhalation toxicity



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Remarks: No mortality observed at this dose.

Acute dermal toxicity : LD50 (Rabbit): > 5,000 mg/kg
Remarks: No mortality observed at this dose.

DISTILLATES (PETROLEUM), SOLVENT-DEWAXED HEAVY PARAFFINIC:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

Acute dermal toxicity : LD50 (Rabbit): > 5,000 mg/kg

CATALYTIC DE WAXED HEAVY PARAFFINIC OIL (PETROLEUM):

Acute oral toxicity : LD50 (Rat): > 2,000 mg/kg
Assessment: The substance or mixture has no acute oral toxicity
Remarks: The toxicological data has been taken from products of similar composition.

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg
Assessment: The substance or mixture has no acute dermal toxicity
Remarks: The toxicological data has been taken from products of similar composition.

Distillates (Petroleum), Hydrotreated Heavy Paraffinic:

Acute oral toxicity : LD50 (Rat): > 15 g/kg

Acute dermal toxicity : LD50 (Rabbit): > 5 g/kg

Distillates (petroleum), solvent-dewaxed light paraffinic:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 5.53 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity : LD50 (Rabbit): > 5,000 mg/kg

C14-16-18 Alkyl phenol:

Acute oral toxicity : LD50 (Rat): > 2,000 mg/kg
Assessment: The substance or mixture has no acute oral toxicity

Acute dermal toxicity : LD50 (Rat): > 2,000 mg/kg
Assessment: The substance or mixture has no acute dermal



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toxicity

Remarks: No mortality observed at this dose.

Skin corrosion/irritation

Not classified based on available information.

Product:

Remarks : May cause skin irritation and/or dermatitis.

Components:

DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC:

Assessment : Slight, transient irritation

Result : Slight, transient irritation

DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC:

Assessment : Slight, transient irritation

Result : Slight, transient irritation

LUBRICATING OILS, PETROLEUM, C20-50, HYDROTREATED:

Species : Rabbit

Result : No skin irritation

DISTILLATES (PETROLEUM), SOLVENT-DEWAXED HEAVY PARAFFINIC:

Assessment : Slight, transient irritation

Result : Slight, transient irritation

CATALYTIC DE WAXED HEAVY PARAFFINIC OIL (PETROLEUM):

Result : Slight, transient irritation

Distillates (Petroleum), Hydrotreated Heavy Paraffinic:

Assessment : Slight, transient irritation

Result : Slight, transient irritation

Distillates (petroleum), solvent-dewaxed light paraffinic:

Species : Rabbit

Result : Slight, transient irritation

C14-16-18 Alkyl phenol:

Method : OECD Test Guideline 431

Result : No skin irritation

DITHIOPHOSPHORIC ACID, O,O'-DIISOCTYL ESTER, ZINC SALT:



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Result : Skin irritation

Serious eye damage/eye irritation

Not classified based on available information.

Product:

Result : No eye irritation

Remarks : Expected based on components.

Remarks : Vapours may cause irritation to the eyes, respiratory system and the skin.

Components:

DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC:

Result : No eye irritation

Assessment : No eye irritation

DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC:

Result : No eye irritation

Assessment : No eye irritation

LUBRICATING OILS, PETROLEUM, C20-50, HYDROTREATED:

Species : Rabbit

Result : No eye irritation

DISTILLATES (PETROLEUM), SOLVENT-DEWAXED HEAVY PARAFFINIC:

Result : Slight, transient irritation

Assessment : Slight, transient irritation

CATALYTIC DE WAXED HEAVY PARAFFINIC OIL (PETROLEUM):

Result : Slight, transient irritation

Distillates (Petroleum), Hydrotreated Heavy Paraffinic:

Result : No eye irritation

Assessment : No eye irritation

Distillates (petroleum), solvent-dewaxed light paraffinic:

Species : Rabbit

Result : Slight, transient irritation

C14-16-18 Alkyl phenol:

Species : Rabbit



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Result : Slight, transient irritation

DITHIOPHOSPHORIC ACID, O,O'-DIISOCTYL ESTER, ZINC SALT:

Result : Corrosive

Respiratory or skin sensitisation

Skin sensitisation

Not classified based on available information.

Respiratory sensitisation

Not classified based on available information.

Product:

Assessment : Does not cause skin sensitisation.

Components:

LUBRICATING OILS, PETROLEUM, C20-50, HYDROTREATED:

Test Type : Buehler Test
Species : Guinea pig
Assessment : Does not cause skin sensitisation.

Distillates (petroleum), solvent-dewaxed light paraffinic:

Test Type : Buehler Test
Species : Guinea pig
Assessment : Does not cause skin sensitisation.
Method : OECD Test Guideline 406

C14-16-18 Alkyl phenol:

Test Type : Local lymph node assay
Species : Mouse
Assessment : The product is a skin sensitiser, sub-category 1B.
Method : OECD Test Guideline 429

DITHIOPHOSPHORIC ACID, O,O'-DIISOCTYL ESTER, ZINC SALT:

Assessment : Does not cause skin sensitisation.

Germ cell mutagenicity

Not classified based on available information.

Components:

C14-16-18 Alkyl phenol:

Genotoxicity in vitro : Test Type: Ames test
Test system: Salmonella typhimurium



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Metabolic activation: with and without metabolic activation
Result: negative

Carcinogenicity

Not classified based on available information.

Components:

DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC:

Carcinogenicity - : Classified based on DMSO extract content < 3% (Regulation
Assessment (EC) 1272/2008, Annex VI, Part 3, Note L)

DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC:

Carcinogenicity - : Classified based on DMSO extract content < 3% (Regulation
Assessment (EC) 1272/2008, Annex VI, Part 3, Note L)

LUBRICATING OILS, PETROLEUM, C20-50, HYDROTREATED:

Carcinogenicity - : Classified based on DMSO extract content < 3% (Regulation
Assessment (EC) 1272/2008, Annex VI, Part 3, Note L)

DISTILLATES (PETROLEUM), SOLVENT-DEWAXED HEAVY PARAFFINIC:

Carcinogenicity - : Classified based on DMSO extract content < 3% (Regulation
Assessment (EC) 1272/2008, Annex VI, Part 3, Note L)

CATALYTIC DE WAXED HEAVY PARAFFINIC OIL (PETROLEUM):

Carcinogenicity - : Classified based on DMSO extract content < 3% (Regulation
Assessment (EC) 1272/2008, Annex VI, Part 3, Note L)

Distillates (Petroleum), Hydrotreated Heavy Paraffinic:

Carcinogenicity - : Classified based on DMSO extract content < 3% (Regulation
Assessment (EC) 1272/2008, Annex VI, Part 3, Note L)

Distillates (petroleum), solvent-dewaxed light paraffinic:

Carcinogenicity - : Classified based on DMSO extract content < 3% (Regulation
Assessment (EC) 1272/2008, Annex VI, Part 3, Note L)

IARC Group 1: Carcinogenic to humans
DISTILLATES (PETROLEUM), SOLVENT-DEWAXED HEAVY PARAFFINIC
64742-65-0
(Mineral oils, untreated or mildly treated)

OSHA No component of this product present at levels greater than or equal to 0.1% is
on OSHA's list of regulated carcinogens.

NTP Known to be human carcinogen



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DISTILLATES (PETROLEUM), SOLVENT-DEWAXED HEAVY PARAFFINIC
64742-65-0
(Mineral Oils: Untreated and Mildly Treated)

Reproductive toxicity

Not classified based on available information.

STOT - single exposure

Not classified based on available information.

STOT - repeated exposure

May cause damage to organs (Liver) through prolonged or repeated exposure.

Components:

C14-16-18 Alkyl phenol:

Target Organs	: Liver
Assessment	: The substance or mixture is classified as specific target organ toxicant, repeated exposure, category 2.

Aspiration toxicity

Not classified based on available information.

Components:

DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC:

No aspiration toxicity classification

LUBRICATING OILS, PETROLEUM, C20-50, HYDROTREATED:

No aspiration toxicity classification

DISTILLATES (PETROLEUM), SOLVENT-DEWAXED HEAVY PARAFFINIC:

May be fatal if swallowed and enters airways.

CATALYTIC DE WAXED HEAVY PARAFFINIC OIL (PETROLEUM):

May be fatal if swallowed and enters airways.

Distillates (Petroleum), Hydrotreated Heavy Paraffinic:

May be fatal if swallowed and enters airways.

Distillates (petroleum), solvent-dewaxed light paraffinic:

The substance or mixture is known to cause human aspiration toxicity hazards or has to be regarded as if it causes a human aspiration toxicity hazard.



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Further information

Product:

Remarks : No data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Ecotoxicology Assessment

Acute aquatic toxicity : Not classified based on available information.

Chronic aquatic toxicity : Not classified based on available information.

Components:

DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC:

Ecotoxicology Assessment

Acute aquatic toxicity : Not classified based on available information.

Chronic aquatic toxicity : Not classified based on available information.

DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC:

Toxicity to fish : LL50 (Fish): > 100 mg/l
Exposure time: 96 h

Toxicity to daphnia and other : EL50 (Aquatic invertebrates): > 10,000 mg/l
aquatic invertebrates Exposure time: 48 h

Toxicity to algae/aquatic : EL50 (Algae, algal mat (Algae)): > 100 mg/l
plants Exposure time: 72 h

Toxicity to fish (Chronic : NOEC (Fish): 10 mg/l
toxicity)

Toxicity to daphnia and other : NOEC (Aquatic invertebrates): 10 mg/l
aquatic invertebrates
(Chronic toxicity)

Ecotoxicology Assessment

Acute aquatic toxicity : Not classified based on available information.

Chronic aquatic toxicity : Not classified based on available information.



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LUBRICATING OILS, PETROLEUM, C20-50, HYDROTREATED:

- Toxicity to fish : LL50 (Pimephales promelas (fathead minnow)): > 100 mg/l
Exposure time: 96 h
Test Type: static test
Test substance: WAF
Method: OECD Test Guideline 203
Remarks: No toxicity at the limit of solubility
- Toxicity to daphnia and other aquatic invertebrates : EL50 (Daphnia magna (Water flea)): > 10,000 mg/l
Exposure time: 48 h
Test Type: static test
Test substance: WAF
Method: OECD Test Guideline 202
- Toxicity to algae/aquatic plants : NOEL (Pseudokirchneriella subcapitata (green algae)): >= 100 mg/l
End point: Growth inhibition
Exposure time: 72 h
Test Type: static test
Test substance: WAF
Method: OECD Test Guideline 201
- Toxicity to fish (Chronic toxicity) : NOELR (Oncorhynchus mykiss (rainbow trout)): Calculated >= 1,000 mg/l
Exposure time: 14 d
- Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEL (Daphnia (water flea)): 10 mg/l
Exposure time: 21 d
Test substance: WAF
Method: OECD Test Guideline 211

Ecotoxicology Assessment

- Acute aquatic toxicity : Not classified based on available information.
- Chronic aquatic toxicity : Not classified based on available information.

DISTILLATES (PETROLEUM), SOLVENT-DEWAXED HEAVY PARAFFINIC:

Ecotoxicology Assessment

- Acute aquatic toxicity : Not classified based on available information.
- Chronic aquatic toxicity : Not classified based on available information.



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CATALYTIC DE WAXED HEAVY PARAFFINIC OIL (PETROLEUM):

Ecotoxicology Assessment

Acute aquatic toxicity : Not classified based on available information.

Chronic aquatic toxicity : Not classified based on available information.

Distillates (Petroleum), Hydrotreated Heavy Paraffinic:

Toxicity to fish : LL50 (Fish): > 100 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EL50 (Aquatic invertebrates): > 10,000 mg/l
Exposure time: 48 h

Toxicity to algae/aquatic plants : EL50 (Algae, algal mat (Algae)): > 100 mg/l
Exposure time: 72 h

Toxicity to fish (Chronic toxicity) : NOEC (Fish): 10 mg/l

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Aquatic invertebrates): 10 mg/l

Ecotoxicology Assessment

Acute aquatic toxicity : Not classified based on available information.

Chronic aquatic toxicity : Not classified based on available information.

Distillates (petroleum), solvent-dewaxed light paraffinic:

Toxicity to fish : LL50 (Pimephales promelas (fathead minnow)): > 100 mg/l
Exposure time: 96 h
Test Type: static test
Test substance: WAF
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EL50 (Daphnia magna (Water flea)): > 10,000 mg/l
Exposure time: 48 h
Test Type: static test
Test substance: WAF
Method: OECD Test Guideline 202

Toxicity to algae/aquatic plants : NOEL (Pseudokirchneriella subcapitata (green algae)): >= 100 mg/l
End point: Growth inhibition
Exposure time: 72 h
Test Type: static test
Test substance: WAF



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Method: OECD Test Guideline 201

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEL (Daphnia magna (Water flea)): 10 mg/l
Exposure time: 21 d
Test Type: semi-static test
Test substance: WAF
Method: OECD Test Guideline 211

Ecotoxicology Assessment

Acute aquatic toxicity : Not classified based on available information.

Chronic aquatic toxicity : Not classified based on available information.

C14-16-18 Alkyl phenol:

Toxicity to fish : LC50 (Cyprinus carpio (Carp)): > 100 mg/l
Exposure time: 96 h
Test Type: static test
Test substance: WAF

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 100 mg/l
Exposure time: 48 h
Test Type: static test
Method: OECD Test Guideline 202

Toxicity to algae/aquatic plants : EC50 (Pseudokirchneriella subcapitata (algae)): > 100 mg/l
End point: Growth inhibition
Exposure time: 72 h
Test Type: static test
Test substance: WAF

Ecotoxicology Assessment

Acute aquatic toxicity : Not classified based on available information.

Chronic aquatic toxicity : Not classified based on available information.

DITHIOPHOSPHORIC ACID, O,O'-DIISOCTYL ESTER, ZINC SALT:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 3.8 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 510 mg/l
Exposure time: 48 h

Toxicity to algae/aquatic plants : EC50 (Scenedesmus quadricauda (Green algae)): 410 mg/l
Exposure time: 72 h

Toxicity to daphnia and other aquatic invertebrates : NOEC (Daphnia magna (Water flea)): 0.4 mg/l
Exposure time: 21 d



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Synthetic Motor Oil

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(Chronic toxicity)

Ecotoxicology Assessment

Acute aquatic toxicity : Acute aquatic toxicity Category 2; Toxic to aquatic life.

Chronic aquatic toxicity : Chronic aquatic toxicity Category 2; Toxic to aquatic life with long lasting effects.

Persistence and degradability

Components:

LUBRICATING OILS, PETROLEUM, C20-50, HYDROTREATED:

Biodegradability : Result: Not readily biodegradable.
Biodegradation: 2 - 4 %
Exposure time: 28 d
Method: OECD Test Guideline 301B

Distillates (petroleum), solvent-dewaxed light paraffinic:

Biodegradability : Result: Inherently biodegradable.
Biodegradation: 31 %
Exposure time: 28 d
Method: OECD Test Guideline 301B

C14-16-18 Alkyl phenol:

Biodegradability : Result: Readily biodegradable.
Remarks: Expert judgement

Bioaccumulative potential

Components:

DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC:

Partition coefficient: n-octanol/water : log Pow: Expected > 7

C14-16-18 Alkyl phenol:

Partition coefficient: n-octanol/water : log Pow: > 7.2

Mobility in soil

No data available

Other adverse effects

Product:



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Ozone-Depletion Potential	: Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).
Additional ecological information	: No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues	: Do not dispose of waste into sewer. Do not contaminate ponds, waterways or ditches with chemical or used container. Send to a licensed waste management company.
Contaminated packaging	: Empty remaining contents. Dispose of as unused product. Do not re-use empty containers.

SECTION 14. TRANSPORT INFORMATION

International Regulations

UNRTDG

Not regulated as a dangerous good

IATA-DGR

Not regulated as a dangerous good

IMDG-Code

Not regulated as a dangerous good

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

National Regulations

49 CFR

Not regulated as a dangerous good

Special precautions for user

Not applicable



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Dangerous goods descriptions (if indicated above) may not reflect quantity, end-use or region-specific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.

SECTION 15. REGULATORY INFORMATION

CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards : Specific target organ toxicity (single or repeated exposure)

SARA 313 : The following components are subject to reporting levels established by SARA Title III, Section 313:

DITHIOPHOSPH 28629-66-5 $\geq 1 - < 5 \%$
ORIC ACID,
O,O'-
DIISOCTYL
ESTER, ZINC
SALT

ZINC BIS[O-(6- 93819-94-4 $\geq 0.1 - < 1 \%$
METHYLHELPT
YL)]BIS[O-SEC-
BUTYL)]BIS(DIT
HIOPHOSPATE)

Clean Air Act

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCM Intermediate or Final VOC's (40 CFR 60.489).

Clean Water Act

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.



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This product contains the following toxic pollutants listed under the U.S. Clean Water Act Section 307

DITHIOPHOSPHORIC ACID, O,O'-DIISOCTYL ESTER, ZINC SALT	28629-66-5	>= 1 - < 5 %
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This product does not contain any priority pollutants related to the U.S. Clean Water Act

US State Regulations

Massachusetts Right To Know

LUBRICATING OILS, PETROLEUM, C20-50, HYDROTREATED	72623-87-1
CATALYTIC DE WAXED HEAVY PARAFFINIC OIL (PETROLEUM)	64742-70-7
Reaction products of Benzeneamine, N-phenyl- with nonene (branched)	36878-20-3
Distillates (Petroleum), Hydrotreated Heavy Paraffinic	64742-54-7
Distillates (petroleum), solvent-dewaxed light paraffinic	64742-56-9

Pennsylvania Right To Know

DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC	64742-54-7
PROPRIETARY SUBSTANCE OF INFINEUM P6780 - 000000278567 and 0-279420	Not Assigned
PROPRIETARY OF INFINEUM SV261L	Not Assigned
DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC	64742-54-7
LUBRICATING OILS, PETROLEUM, C20-50, HYDROTREATED	72623-87-1
DISTILLATES (PETROLEUM), SOLVENT-DEWAXED HEAVY PARAFFINIC	64742-65-0
Distillates (petroleum), solvent-dewaxed light paraffinic	64742-56-9
DITHIOPHOSPHORIC ACID, O,O'-DIISOCTYL ESTER, ZINC SALT	28629-66-5
ZINC BIS[O-(6-METHYLHEPTYL)]BIS[O-SEC-BUTYL]BIS(DITHIOPHOSPHATE)	93819-94-4

Maine Chemicals of High Concern

Reaction products of Benzeneamine, N-phenyl- with nonene (branched)	36878-20-3
Distillates (Petroleum), Hydrotreated Heavy Paraffinic	64742-54-7

Vermont Chemicals of High Concern

Reaction products of Benzeneamine, N-phenyl- with nonene (branched)	36878-20-3
Distillates (Petroleum), Hydrotreated Heavy Paraffinic	64742-54-7

Washington Chemicals of High Concern

Reaction products of Benzeneamine, N-phenyl- with nonene (branched)	36878-20-3
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Distillates (Petroleum), Hydrotreated Heavy Paraffinic 64742-54-7

California List of Hazardous Substances

DISTILLATES (PETROLEUM), HYDROTREATED HEAVY
PARAFFINIC 64742-54-7
DISTILLATES (PETROLEUM), HYDROTREATED HEAVY
PARAFFINIC 64742-54-7
DISTILLATES (PETROLEUM), SOLVENT-DEWAXED
HEAVY PARAFFINIC 64742-65-0
DITHIOPHOSPHORIC ACID, O,O'-DIISOCTYL ESTER,
ZINC SALT 28629-66-5

California Permissible Exposure Limits for Chemical Contaminants

DISTILLATES (PETROLEUM), HYDROTREATED HEAVY
PARAFFINIC 64742-54-7
DISTILLATES (PETROLEUM), HYDROTREATED HEAVY
PARAFFINIC 64742-54-7
LUBRICATING OILS, PETROLEUM, C20-50,
HYDROTREATED 72623-87-1
Distillates (Petroleum), Hydrotreated Heavy Paraffinic 64742-54-7

The components of this product are reported in the following inventories:

TCSI : Not in compliance with the inventory
TSCA : All substances listed as active on the TSCA inventory
AIIC : Not in compliance with the inventory
DSL : All components of this product are on the Canadian DSL
ENCS : On the inventory, or in compliance with the inventory
ISHL : Not in compliance with the inventory
KECI : On the inventory, or in compliance with the inventory
PICCS : On the inventory, or in compliance with the inventory
NZIoC : Not in compliance with the inventory
TECI : Not in compliance with the inventory

TSCA list

No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

Inventories



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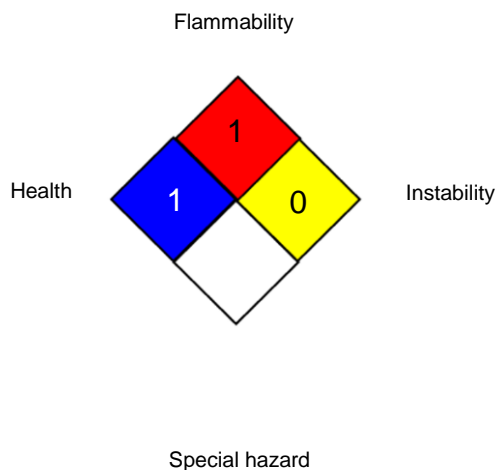
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AIIC (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TCSI (Taiwan), TECI (Thailand), TSCA (USA)

SECTION 16. OTHER INFORMATION

Further information

NFPA 704:



HMIS® IV:

HEALTH	*	2
FLAMMABILITY		1
PHYSICAL HAZARD		0

HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

Full text of other abbreviations

ACGIH	: USA. ACGIH Threshold Limit Values (TLV)
NIOSH REL	: USA. NIOSH Recommended Exposure Limits
OSHA P0	: USA. Table Z-1-A Limits for Air Contaminants (1989 vacated values)
OSHA Z-1	: USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
ACGIH / TWA	: 8-hour, time-weighted average
NIOSH REL / TWA	: Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek
NIOSH REL / ST	: STEL - 15-minute TWA exposure that should not be exceeded at any time during a workday
OSHA P0 / TWA	: 8-hour time weighted average
OSHA Z-1 / TWA	: 8-hour time weighted average

AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL -



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Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

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The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

US / EN

Internal information : R0338135