

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

Version: 2.0 Revision Date: 06/12/2023 Print Date: 06/21/2023

SECTION 1. IDENTIFICATION

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

Synthetic Motor Oil

Product code : VV966

Manufacturer or supplier's details

Company name of supplier : Valvoline Global Operations

Address : 100 Valvoline Way

Lexington, KY 40509

United States of America (USA)

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

E-mail address : SDS@valvolineglobal.com

Emergency telephone

number

: +1-800-VALVOLINE (+1-800-825-8654)

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



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Substance / Mixture : Mixture

Components

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

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.



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If swallowed Keep respiratory tract clear.

Do not give milk or alcoholic beverages.

Never give anything by mouth to an unconscious person.

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.

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SECTION 7. HANDLING AND STORAGE

fire and explosion

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

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

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 | 5 mg/m3 | ACGIH |



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| | | matter) | | |
|---|------------|---|----------|-----------|
| | | 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), SOLVENT-DEWAXED HEAVY PARAFFINIC | 64742-65-0 | TWA (Mist) | 5 mg/m3 | OSHA Z-1 |
| | | 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.



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SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid

Colour : amber

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 : $> 390 \, ^{\circ}\text{F} / > 199 \, ^{\circ}\text{C}$

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/cm3 (60.01 °F / 15.56 °C)

Solubility(ies)

Water solubility : No data available

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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

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

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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

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

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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

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



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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'-DIISOOCTYL ESTER, ZINC SALT:

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



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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

Result : Slight, transient irritation

DITHIOPHOSPHORIC ACID, O,O'-DIISOOCTYL 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



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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'-DIISOOCTYL 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

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)



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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)

OSHANo 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

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



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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.

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:



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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/aguatic

plants

EL50 (Algae, algal mat (Algae)): > 100 mg/l

Exposure time: 72 h

NOEC (Fish): 10 mg/l

Toxicity to fish (Chronic

toxicity)

aquatic invertebrates (Chronic toxicity)

Toxicity to daphnia and other : 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.

LUBRICATING OILS, PETROLEUM, C20-50, HYDROTREATED:

LL50 (Pimephales promelas (fathead minnow)): > 100 mg/l Toxicity to fish

> 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 ma/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 : NOEL (Daphnia (water flea)): 10 mg/l



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aquatic invertebrates Exposure time: 21 d (Chronic toxicity) 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

Not classified based on available information. Acute aquatic toxicity

Chronic aquatic toxicity Not classified based on available information.

CATALYTIC DE WAXED HEAVY PARAFFINIC OIL (PETROLEUM):

Ecotoxicology Assessment

Acute aquatic toxicity Not classified based on available information.

Not classified based on available information. Chronic aquatic toxicity

DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC:

Toxicity to fish : LL50 (Fish): > 100 mg/l

Exposure time: 96 h

aquatic invertebrates

Toxicity to daphnia and other : 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 : NOEC (Fish): 10 mg/l

toxicity)

aquatic invertebrates (Chronic toxicity)

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

Ecotoxicology Assessment

Not classified based on available information. Acute aquatic toxicity

Chronic aquatic toxicity Not classified based on available information.

Distillates (petroleum), solvent-dewaxed light paraffinic:



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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

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



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Ecotoxicology Assessment

Acute aquatic toxicity Not classified based on available information.

Chronic aquatic toxicity Not classified based on available information.

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

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 3.8 mg/l

Exposure time: 96 h

aquatic invertebrates

Toxicity to daphnia and other : 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

(Chronic toxicity)

NOEC (Daphnia magna (Water flea)): 0.4 mg/l

Exposure time: 21 d

Ecotoxicology Assessment

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

Chronic aquatic toxicity Category 2; Toxic to aquatic life with Chronic aquatic toxicity

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:

Result: Inherently biodegradable. Biodegradability

> Biodegradation: 31 % Exposure time: 28 d

Method: OECD Test Guideline 301B

C14-16-18 Alkyl phenol:

Biodegradability Result: Readily biodegradable.

Remarks: Expert judgement



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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:

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.



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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

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:



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DITHIOPHOSPH 28629-66-5 >= 1 - < 5 % ORIC ACID, O,O'DIISOOCTYL
ESTER, ZINC
SALT

ZINC BIS[O-(6- 93819-94-4 >= 0.1 - < 1 % METHYLHELPT
YL)]BIS[O-SECBUTYL)]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 SOCMI 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.

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

DITHIOPHOSPHORIC 28629-66-5 >= 1 - < 5 % ACID, O,O'-DIISOOCTYL ESTER, ZINC SALT

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, | 72623-87-1 |
|--|------------|
| HYDROTREATED CATALYTIC DE WAXED HEAVY PARAFFINIC OIL | 64742-70-7 |
| (PETROLEUM) Reaction products of Benzeneamine, N-phenyl- with nonene | 36878-20-3 |
| (branched) | |
| DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC | 64742-54-7 |
| Distillates (petroleum), solvent-dewaxed light paraffinic | 64742-56-9 |



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| Pennsylvania Right To Know | |
|---|----------------------------|
| DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC | 64742-54-7 |
| PROPRIETARY SUBSTANCE OF INFINEUM P6780 - | Not Assigned |
| 000000278567 and 0-279420 PROPRIETARY OF INFINEUM SV261L DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC | Not Assigned 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 DITHIOPHOSPHORIC ACID, O,O'-DIISOOCTYL ESTER, ZINC SALT | 64742-56-9 28629-66-5 |
| ZINC BIS[O-(6-METHYLHELPTYL)]BIS[O-SEC-BUTYL)]BIS(DITHIOPHOSPATE) | 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) DISTILLATES (PETROLEUM), HYDROTREATED HEAVY | 36878-20-3 64742-54-7 |
| PARAFFINIC | 04742-34-7 |
| Washington Chemicals of High Concern | |
| Reaction products of Benzeneamine, N-phenyl- with nonene (branched) | 36878-20-3 |
| 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'-DIISOOCTYL 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 | 64742-54-7 |



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PARAFFINIC

LUBRICATING OILS, PETROLEUM, C20-50, 72623-87-1

HYDROTREATED

DISTILLATES (PETROLEUM), HYDROTREATED HEAVY 64742-54-7

PARAFFINIC

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

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

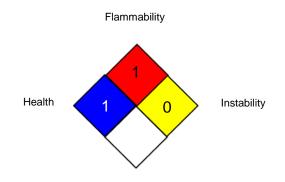
Further information



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NFPA 704:



Special hazard

HMIS® IV:



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 - 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



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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