

Safety Data Sheet

According to 29CFR 1910.1200 OSHA Hazard Communication Standard and the Hazardous Products Regulation (WHMIS 2015)
Issue date: 6/24/2023 Revision date: 12/6/2024 Version: 2.0

SECTION 1 Identification

1.1. Product identifier

Product form : Mixture
Trade name : 2331, 2332, 20122, 20362, 20363, 20731, 22276, 49021 Leichtlauf High Tech 5W-40
Product code :

1.2. Other means of identification

No additional information available

1.3. Recommended use of the chemical and restrictions on use

Recommended use : Engine oil
Restrictions on use : None known

1.4. Supplier's details

Liqui Moly GmbH
Jerg-Wieland-Strasse 4 Ulm D-89081 Germany
T +49 731 1420 0
info@liqui-moly.de - www.liqui-moly.us

1.5. Emergency phone number

Emergency number : INFOTRAC
+1800 535 5053 (USA, Canada); +1352 323 3500 (International)

SECTION 2 Hazard Identification

2.1. Classification of the substance or mixture

GHS US classification

Reproductive toxicity, Category 2 H361 Suspected of damaging the unborn child.
Full text of H statements : see section 16

2.2. Label elements

GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US) : Warning
Hazard statements (GHS US) : H361 - Suspected of damaging the unborn child.
Precautionary statements (GHS US) : P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P280 - Wear protective gloves.
P308+P313 - If exposed or concerned: Get medical advice/attention.
P501 - Dispose of to an approved waste disposal plant to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulations.

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2.3. Hazards associated with known or reasonably anticipated uses

No additional information available

2.4. Hazards not otherwise classified

Other hazards which do not result in classification : None known.

2.5. Unknown acute toxicity

No additional information available

SECTION 3 Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%
Distillates (petroleum), hydrotreated heavy paraffinic	CAS-No.: 64742-54-7	60-90
Highly refined mineral oil (C15-C50)	CAS-No.: Proprietary	10 – 30
(tetrapropenyl)succinic acid	CAS-No.: 27859-58-1	0.1-0.2

Full text of hazard classes and H-statements : see section 16

SECTION 4 First aid measures

4.1. Description of necessary first-aid measures

First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Wash skin with mild soap and water.
First-aid measures after eye contact	: Rinse eyes with water as a precaution. Get medical attention if irritation develops and persists.
First-aid measures after ingestion	: Call a poison center or a doctor if you feel unwell.

4.2. Most important symptoms/effects, acute and delayed

Symptoms/effects	: No adverse effects expected.
Inhalation	: Inhalation of mists or vapors at elevated temperatures may cause respiratory irritation.
Skin	: Repeated or prolonged skin contact may cause dermatitis and defatting.
Eyes	: May cause minor eye irritation.
Ingestion	: Ingestion may cause nausea, vomiting and diarrhea.
Chronic symptoms	: Suspected of damaging the unborn child.

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

Other medical advice or treatment : Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media	: Water spray. Dry powder. Foam. Carbon dioxide.
Unsuitable extinguishing media	: Use of heavy stream of water may spread fire.

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5.2. Specific hazards arising from the chemical

Fire hazard : This product is not classified as flammable or combustible.
Hazardous decomposition products in case of fire : Toxic fumes may be released. Carbon oxides (CO, CO₂). Fire will produce dense black smoke.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions : Cool down the containers exposed to heat with a water spray.
Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6 Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Emergency procedures : Keep unnecessary and unprotected personnel away from the spillage.

For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

Environmental precautions : Avoid release to the environment.

6.2. Methods and materials for containment and cleaning up

For containment : Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.
Methods for cleaning up : Absorb and/or contain spill with inert material, then place in suitable container.
Other information : Dispose of materials or solid residues at an authorized site.

For further information refer to section 13

SECTION 7 Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment. Avoid contact with eyes. Avoid repeated or prolonged skin contact.
Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including incompatibilities

Storage conditions : Store in a well-ventilated place. Keep cool.
Incompatible materials : Strong oxidizers.

SECTION 8 Exposure controls/personal protection

8.1. Control parameters

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Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Mineral oil, excluding metal working fluids Pure, highly and severely refined
ACGIH OEL TWA	5 mg/m ³ (I - Inhalable particulate matter)
Remark (ACGIH)	TLV® Basis: URT irr. Notations: A4 (Not classifiable as a Human Carcinogen)
Regulatory reference	ACGIH 2024
USA - OSHA - Occupational Exposure Limits	
Local name	Oil mist, mineral
OSHA PEL (TWA)	5 mg/m ³
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1
Highly refined mineral oil (C15-C50) (Proprietary)	
USA - ACGIH - Occupational Exposure Limits	
ACGIH OEL TWA	5 mg/m ³ inhalable
USA - OSHA - Occupational Exposure Limits	
OSHA PEL (TWA)	5 mg/m ³

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.
Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures, such as personal protective equipment

Hand protection:
In case of repeated or prolonged contact wear gloves. Consult supplier for specific recommendations.
Eye protection:
Not required for normal conditions of use
Skin and body protection:
Wear suitable protective clothing
Respiratory protection:
In operations where exposure limits are exceeded or exposure levels are excessive, an approved respirator should be used. Respirator selection and use should be based on contaminant type, form and concentration. Follow applicable regulations and good Industrial Hygiene practice.

SECTION 9 Physical and chemical properties

9.1. Basic physical and chemical properties

Physical state	: Liquid
Appearance	: Liquid.
Color	: Brown
Odor	: Characteristic
Odor threshold	: No data available
pH	: No data available
Melting point	: -42 °C

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Freezing point	: No data available
Boiling point	: No data available
Flash point	: 230 °C (446F)
Flammability (solid, gas)	: Not applicable.
Vapor pressure	: No data available
Relative vapor density at 20°C	: No data available
Relative density	: 0.855
Solubility	: Insoluble in water.
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: 88 mm ² /s @40C
Explosion limits	: No data available
Explosive properties	: None.
Oxidizing properties	: None.
Particle characteristics	: No data available

Distillates (petroleum), hydrotreated heavy paraffinic

Particle characteristics	No data available
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Highly refined mineral oil (C15-C50)

Particle characteristics	No data available
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(tetrapropenyl)succinic acid

Particle characteristics	No data available
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9.2. Data relevant with regard to physical hazard classes (supplemental)

No additional information available

SECTION 10 Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

Strong oxidizers. Strong acids. Strong bases.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

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SECTION 11 Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7)

LD50 oral rat	> 5000 mg/kg
LD50 dermal rat	> 2000 mg/kg body weight
LD50 dermal rabbit	> 5000 mg/kg Source: IUCLID
LC50 Inhalation - Rat	> 5000 mg/m ³

(tetrapropenyl)succinic acid (27859-58-1)

LD50 oral rat	> 2100 mg/kg
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Skin corrosion/irritation : Not classified

Serious eye damage/irritation : Not classified.

Respiratory or skin sensitization : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Suspected of damaging the unborn child.

(tetrapropenyl)succinic acid (27859-58-1)

LOAEL (animal/male, F1)	250 mg/kg (OECD 414 method)
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STOT-single exposure : Not classified

STOT-repeated exposure : Not classified

Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7)

LOAEL (oral,rat,90 days)	125 mg/kg body weight Animal: rat, Animal sex: male, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
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(tetrapropenyl)succinic acid (27859-58-1)

NOAEL (oral,rat,90 days)	100 mg/kg body weight Animal: rat, Guideline: OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity Study in Rodents), Guideline: EU Method B.7 (Repeated Dose (28 Days) Toxicity (Oral)), Guideline: other:, Guideline: other:
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STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.
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Aspiration hazard : Not classified

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Viscosity, kinematic	88 mm ² /s @40C
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Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7)

Viscosity, kinematic	73.9 mm ² /s
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Highly refined mineral oil (C15-C50) (Proprietary)

Viscosity, kinematic	No data available
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Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7)

(tetrapropenyl)succinic acid (27859-58-1)

Viscosity, kinematic	No data available
Symptoms/effects	: No adverse effects expected.
Inhalation	: Inhalation of mists or vapors at elevated temperatures may cause respiratory irritation.
Skin	: Repeated or prolonged skin contact may cause dermatitis and defatting.
Eyes	: May cause minor eye irritation.
Ingestion	: Ingestion may cause nausea, vomiting and diarrhea.
Chronic symptoms	: Suspected of damaging the unborn child.

SECTION 12 Ecological information

12.1. Ecotoxicity

Ecology - general	: The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment. An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified

Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7)

LC50 - Fish [1]	≥ 100 mg/l
EC50 - Crustacea [1]	> 10 g/l
EC50 96h - Algae [1]	> 1000 mg/l Source: IUCLID

(tetrapropenyl)succinic acid (27859-58-1)

LC50 - Fish [1]	> 100 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)
EC50 - Crustacea [1]	> 100 mg/l Test organisms (species): Daphnia magna
EC50 96h - Algae [1]	93 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)
EC50 96h - Algae [2]	100 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)

12.2. Persistence and degradability

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Persistence and degradability	No additional information available.
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Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7)

Persistence and degradability	Inherently biodegradable.
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Highly refined mineral oil (C15-C50) (Proprietary)

Persistence and degradability	No additional information available.
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(tetrapropenyl)succinic acid (27859-58-1)

Persistence and degradability	Not readily biodegradable.
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12.3. Bioaccumulative potential

Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7)

Partition coefficient n-octanol/water (Log Pow) 3.9 – 6 Source: IUCLID

(tetrapropenyl)succinic acid (27859-58-1)

Partition coefficient n-octanol/water (Log Pow) 4.93 Source: Episuite

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Fluorinated greenhouse gases : No

SECTION 13 Disposal considerations

Waste treatment methods : Dispose in a safe manner in accordance with local/national regulations.

SECTION 14 Transport information

In accordance with DOT / TDG / IMDG / IATA

DOT	TDG	IMDG	IATA
14.1. UN number			
Not regulated for transport			
14.2. Proper Shipping Name			
Not regulated	Not regulated	Not regulated	Not regulated
14.3. Transport hazard class(es)			
Not regulated	Not regulated	Not regulated	Not regulated
14.4. Packing group			
Not regulated	Not regulated	Not regulated	Not regulated
14.5. Environmental hazards			
Not regulated	Not regulated	Not regulated	Not regulated
No supplementary information available			

14.6. Transport in bulk

Not applicable

14.7. Special precautions for user

DOT
Not regulated

TDG
Not regulated

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IMDG

Not regulated

IATA

Not regulated

SECTION 15 Regulatory information

15.1. Federal regulations

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SARA Section 311/312 Hazard Classes	Refer to Section 2 for OSHA Hazard Classification.
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All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory.

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

Zinc Compounds	CAS-No.	< 2%
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15.2. International regulations

CANADA

Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7)

Listed on the Canadian DSL (Domestic Substances List)

(tetrapropenyl)succinic acid (27859-58-1)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

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Listed on the Canadian DSL (Domestic Substances List)
Listed on the United States TSCA (Toxic Substances Control Act) 12B inventory

15.3. State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

SECTION 16 Other information

According to 29CFR 1910.1200 OSHA Hazard Communication Standard and the Hazardous Products Regulation (WHMIS 2015)

Revision date : 12/6/2024
Issue date : 6/24/2023
Data sources : This safety data sheet was compiled with data and information from the following sources :
ECHA, ECOSAR, HSDB, SIDS SIAP, CESAR, Chemical DB.

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Full text of hazard classes and H-statements	
H361	Suspected of damaging fertility or the unborn child

NFPA health hazard

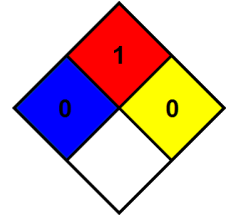
: 0 - Materials that, under emergency conditions, would offer no hazard beyond that of ordinary combustible materials.

NFPA fire hazard

: 1 - Materials that must be preheated before ignition can occur.

NFPA reactivity

: 0 - Material that in themselves are normally stable, even under fire conditions.



Safety Data Sheet (SDS), USA

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.