2042, 2043, 20376 MoS2 Antifriction Motoroil 10W-40

Safety Data Sheet

According to 29CFR 1910.1200 OSHA Hazard Communication Standard and the Hazardous Products Regulation (WHMIS 2015)
Issue date: 7/14/2024 Revision date: 7/14/2024 Version: 1.0

SECTION 1: Identification

1.1. Identification

Product form	:	Mixture
Trade name	:	2042, 2043, 20376 MoS2 Antifriction Motoroil 10W-40
Product code	:	

1.2. Recommended use and restrictions on use

Use of the substance/mixture	:	Engine oil
Recommended use	:	Engine oil
Restrictions on use	:	None known

1.3. Supplier

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

1.4. Emergency telephone number

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

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Not classified

2.2. GHS Label elements, including precautionary statements

GHS US labeling

No labeling applicable

2.3. Other hazards which do not result in classification

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

2.4. Unknown acute toxicity (GHS US)

No additional information available

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%
Distillates (petroleum), solvent-refined heavy paraffinic	CAS-No.: 64741-88-4	30 – 60
Distillates (petroleum), hydrotreated heavy paraffinic	CAS-No.: 64742-54-7	10-30
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	CAS-No.: 72623-86-0	1 – 5
Lubricating Oils (petroleum), C20-50, hydrotreated neutral oil-based	CAS-No.: 72623-87-1	1 – 5

Comments : *Chemical name, CAS number and/or exact concentration have been withheld as a trade secret

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

SECTION 4: First-aid measures

4.1. Description of 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 and 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 : Abdominal pain. Diarrhoea.

Chronic symptoms : None known.

4.3. Immediate medical attention and special treatment, if necessary

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.

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

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area.

6.1.2. 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".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material 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.

6.4. Reference to other sections

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 any 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

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/m³ (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/m³

Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7)	
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1

Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based (72623-86-0)	
USA - ACGIH - Occupational Exposure Limits	
ACGIH OEL TWA	5 mg/m³ inhalable
USA - OSHA - Occupational Exposure Limits	
OSHA PEL (TWA)	5 mg/m³

Distillates (petroleum), solvent-refined heavy paraffinic (64741-88-4)	
USA - ACGIH - Occupational Exposure Limits	
ACGIH OEL TWA	5 mg/m³ inhalable
USA - OSHA - Occupational Exposure Limits	
OSHA PEL (TWA)	5 mg/m³
Limit value category (OSHA)	Refined mineral oil, mist

Lubricating Oils (petroleum), C20-50, hydrotreated neutral oil-based (72623-87-1)	
USA - ACGIH - Occupational Exposure Limits	
ACGIH OEL TWA	5 mg/m³ inhalable
USA - OSHA - Occupational Exposure Limits	
OSHA PEL (TWA)	5 mg/m³

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/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. Information on basic physical and chemical properties

Physical state : Liquid

Appearance : Liquid.

Color : Brown

Odor : Characteristic

Odor threshold	:	No data available
pH	:	Not applicable
Melting point	:	-36 °C
Freezing point	:	No data available
Boiling point	:	No data available
Flash point	:	230 °C (446°F)
Relative evaporation rate (butyl acetate=1)	:	No data available
Flammability (solid, gas)	:	Not applicable.
Vapor pressure	:	No data available
Relative vapor density at 20°C	:	No data available
Relative density	:	0.86
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	:	92 mm²/s @40C
Viscosity, dynamic	:	No data available
Explosion limits	:	No data available
Explosive properties	:	None.
Oxidizing properties	:	None.

9.2. Other information

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.

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/m³

Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based (72623-86-0)	
LD50 oral rat	> 5000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity), Guideline: OECD Guideline 420 (Acute Oral Toxicity - Fixed Dose Method)

Distillates (petroleum), solvent-refined heavy paraffinic (64741-88-4)	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 5000 mg/kg

Lubricating Oils (petroleum), C20-50, hydrotreated neutral oil-based (72623-87-1)	
LD50 oral rat	5000 mg/kg body weight
LD50 dermal rat	> 2000 mg/kg body weight
LC50 Inhalation - Rat	> 5 mg/l/4h

Skin corrosion/irritation : Not classified
pH: Not applicable

Serious eye damage/irritation : Not classified
pH: Not applicable

Respiratory or skin sensitization : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

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)

Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based (72623-86-0)	
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)

Lubricating Oils (petroleum), C20-50, hydrotreated neutral oil-based (72623-87-1)	
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)

Aspiration hazard : Not classified

Viscosity, kinematic : 92 mm²/s @40C

Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7)	
Viscosity, kinematic	73.9 mm²/s

Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based (72623-86-0)	
Viscosity, kinematic	1.99 – 847 mm²/s Temp.: '40°C' Parameter: 'mm²/smm2/s '

Lubricating Oils (petroleum), C20-50, hydrotreated neutral oil-based (72623-87-1)	
Viscosity, kinematic	1.99 – 847 mm²/s Temp.: '40°C' Parameter: 'mm²/smm2/s '

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	:	Abdominal pain. Diarrhoea.
Chronic symptoms	:	None known.

SECTION 12: Ecological information

12.1. Toxicity

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.

Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7)	
LC50 - Fish [1]	≥ 100 mg/l
EC50 - Crustacea [1]	> 10000 ml/l
EC50 96h - Algae [1]	> 1000 mg/l Source: IUCLID

12.2. Persistence and degradability

2042, 2043, 20376 MoS2 Antifriction Motoroil 10W-40	
Persistence and degradability	No data available.

Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7)	
Persistence and degradability	Rapidly degradable

Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based (72623-86-0)	
Persistence and degradability	Rapidly degradable

Distillates (petroleum), solvent-refined heavy paraffinic (64741-88-4)	
Persistence and degradability	Rapidly degradable

Lubricating Oils (petroleum), C20-50, hydrotreated neutral oil-based (72623-87-1)	
Persistence and degradability	Rapidly degradable

12.3. Bioaccumulative potential

Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7)	
Partition coefficient n-octanol/water (Log Pow)	3.9 – 6 Source: IUCLID

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

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. Special precautions for user

DOT
Not regulated

TDG
Not regulated

IMDG
Not regulated

IATA
Not regulated

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

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

2042, 2043, 20376 MoS2 Antifriction Motoroil 10W-40	
SARA Section 311/312 Hazard Classes	Refer to Section 2 for OSHA Hazard Classification.

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%

15.2. International regulations

CANADA

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

Listed on the Canadian DSL (Domestic Substances List)

Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based (72623-86-0)

Listed on the Canadian DSL (Domestic Substances List)

Distillates (petroleum), solvent-refined heavy paraffinic (64741-88-4)

Listed on the Canadian DSL (Domestic Substances List)

Lubricating Oils (petroleum), C20-50, hydrotreated neutral oil-based (72623-87-1)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

2042, 2043, 20376 MoS2 Antifriction Motoroil 10W-40

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

Distillates (petroleum), solvent-refined heavy paraffinic (64741-88-4)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

15.3. US State regulations

WARNING: This product can expose you to Naphthalene, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

SECTION 16: Other information

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

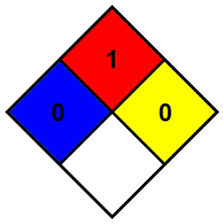
Revision date : 7/14/2024

Data sources : This safety data sheet was compiled with data and information from the following sources : RTECS, ECOSAR, HSDB, SIDS SIAP, CESAR, Chemical DB.

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.