SAFETY DATA SHEET

acc.to ISO/DIS 11014 for USA

1 PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifier

Product name: MB 229.5 0W-40 USCAN

Other means of identification: For further information, please refer to section 9 of the SDS.

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses: Lubricant
Uses advised against: No uses advised against identified.

1.3 Details of the supplier of the safety data sheet

Manufacturer / Supplier	FUCHS LUBRICANTS (UK) PLC. New Century Street ST1 5HU Hanley	US Distributor Fuchs Lubricants Co. 17050 Lathrop Avenue Harvey, IL 60426
Telephone:	+44 (0) 1782 203700	(708) 333-8900 (800) 255-3924 24 hrs Emergency
Contact Person:	Product Safety department	
E-mail:	product.safety@fuchs.com	
Telephone:	+44 (0) 1782 203700	

1.4 US contact telephone : 708-333-8900
Emergency telephone: 800-255-3924

2 HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

The product has been classified and labelled as hazardous according to the legislation in force.

Health Hazards

Specific Target Organ Toxicity - Repeated Exposure	Category 2

Hazard summary
Physical Hazards: No data available.

2.2 Label Elements

Signal Words: Warning

Hazard Statement(s): H373: May cause damage to organs through prolonged or repeated exposure.

Precautionary Statements

Prevention: P260: Do not breathe dust/fume/gas/mist/vapors/spray.

Response: P314: Get medical advice/attention if you feel unwell.

Disposal: P501: Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

2.3 Other hazards: By handling of mineral oil products and chemical products no particular hazard is known when normal precautions (item 7) and personal protective equipment (item 8) are kept.

Unknown toxicity: Due to information available product does not contain any ingredients of unknown toxicity.

3 COMPOSITION / INFORMATION ON INGREDIENTS

3.2 Mixtures

General information: Mixture containing severely refined base oils and additives.

Chemical name	Identifier	Concentration *	Notes
Base oil paraffinic	64742-54-7	20.00 - <50.00%	
Hydrocarbons, low viscous	68037-01-4	10.00 - <20.00%	
Base oil, low viscous	64742-54-7	5.00 - <10.00%	
Base oil, low viscous	72623-86-0	1.00 - <5.00%	
base oil, low viscous	72623-87-1	1.00 - <5.00%	
ZnDTP	28629-66-5	1.00 - <2.50%	
Alkyl phenol, long chain	931-468-2	1.00 - <5.00%	
Base oil, low viscous	64742-56-9	1.00 - <5.00%	
Base oil, low viscous	64742-65-0	1.00 - <5.00%	
Mo-S-polymer	457-320-2	0.10 - <1.00%	
base oil	74869-22-0	0.10 - <1.00%	

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.
PBT: persistent, bioaccumulative and toxic substance.
vPvB: very persistent and very bioaccumulative substance.

Classification

Chemical name	Identifier	Classification
Base oil paraffinic	64742-54-7	Asp. Tox. 1;H304
Hydrocarbons, low viscous	68037-01-4	Asp. Tox. 1;H304
Base oil, low viscous	64742-54-7	Asp. Tox. 1;H304
Base oil, low viscous	72623-86-0	Asp. Tox. 1;H304
base oil, low viscous	72623-87-1	Asp. Tox. 1;H304
ZnDTP	28629-66-5	Eye Dam. 1;H318, Skin Irrit. 2;H315, Aquatic Chronic 2;H411
Alkyl phenol, long chain	931-468-2	Skin Sens. 1B;H317, STOT RE 2;H373
Base oil, low viscous	64742-56-9	Asp. Tox. 1;H304
Base oil, low viscous	64742-65-0	Asp. Tox. 1;H304
Mo-S-polymer	457-320-2	Skin Sens. 1B;H317, Skin Irrit. 2;H315, Aquatic Chronic 3;H412
base oil	74869-22-0	

Please note that the mineral oils and petroleum distillates used in our products are severely refined and have a DMSO extract < 3% as measured by method IP 346 and are not classified as carcinogenic according to Note L of Annex VI of Regulation EC 1272/2008."

4 FIRST AID MEASURES

General: Instantly remove any clothing soiled by the product.

4.1 Description of first aid measures

Inhalation: Supply fresh air; consult doctor in case of symptoms.

Eye contact: Promptly wash eyes with plenty of water while lifting the eye lids.

Skin Contact: Wash with soap and water.

Ingestion: Rinse mouth thoroughly.

4.2 Most important symptoms and effects, both acute and delayed: May cause skin and eye irritation.

4.3 Indication of any immediate medical attention and special treatment needed Get medical attention if symptoms occur.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media: CO2, fire extinguishing powder or fog like water spraying. Extinguish larger fires with alcohol resistant foam or spray water with suitable surfactant added

Unsuitable extinguishing media: Water with a full water jet.

5.2 Special hazards arising from the substance or mixture:	During fire, gases hazardous to health may be formed.

5.3 Advice for firefighters

Special fire-fighting procedures:	Move container from fire area if it can be done without risk. Dispose of fire debris and contaminated fire fighting water inaccordance with official regulations. Collect contaminated fire fighting water separately. It must not enter drains.
Special protective equipment for fire-fighters:	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:	In case of spills, beware of slippery floors and surfaces.
6.2 Environmental Precautions:	Prevent from spreading (e.g. by binding or oil barriers). Avoid release to the environment. Environmental manager must be informed of all major spillages. Prevent further leakage or spillage if safe to do so. Do not allow to enter drainage system, surface or ground water.
6.3 Methods and material for containment and cleaning up:	Absorb with liquid-binding material (sand, diatomite, acidbinders, universal binders, sawdust). Dispose of the material collected according to regulations. Stop the flow of material, if this is without risk.
6.4 Reference to other sections:	See Section 8 of the SDS for Personal Protective Equipment. See Section 7 for information on safe handling See Section 13 for information on disposal.

SECTION 7: Handling and storage:

7.1 Precautions for safe handling:	Prevent formation of aerosols. Do not eat, drink or smoke when working with the product. Take usual precautions when handling mineral oil products or chemical products. Observe good industrial hygiene practices. Provide adequate ventilation.
7.2 Conditions for safe storage, including any incompatibilities:	Do not heat up to temperatures close to the flash point.
7.3 Specific end use(s):	No data available.

8 EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1.Exposure Limits

Chemical name	Type	Exposure Limit Values		Source
Base oil paraffinic - Inhalable fraction.	TWA		5 mg/m3	US. ACGIH Threshold Limit Values, as amended (03 2014)
Base oil paraffinic	PEL	500 ppm	2,000 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006)
Base oil paraffinic - Mist.	PEL		5 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006)
Base oil paraffinic	TWA	400 ppm	1,600 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989)
Base oil paraffinic - Mist.	TWA		5 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989)
Base oil, low viscous - Inhalable fraction.	TWA		5 mg/m3	US. ACGIH Threshold Limit Values, as amended (03 2014)
Base oil, low viscous	PEL	500 ppm	2,000 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006)
Base oil, low viscous - Mist.	PEL		5 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006)
Base oil, low viscous	TWA	400 ppm	1,600 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989)
Base oil, low viscous - Mist.	TWA		5 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989)
base oil, low viscous - Inhalable fraction.	TWA		5 mg/m3	US. ACGIH Threshold Limit Values, as amended (03 2014)
base oil, low viscous	PEL	500 ppm	2,000 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006)
base oil, low viscous - Mist.	PEL		5 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006)
base oil, low viscous	TWA	400 ppm	1,600 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989)
base oil, low viscous - Mist.	TWA		5 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989)
Base oil, low viscous - Mist.	PEL		5 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006)
Base oil, low viscous - Mist.	TWA		5 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989)
Base oil, low viscous - Inhalable fraction.	TWA		5 mg/m3	US. ACGIH Threshold Limit Values, as amended (02 2012)
Base oil, low viscous	PEL	500 ppm	2,000 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006)
Base oil, low viscous - Mist.	PEL		5 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006)
Base oil, low viscous	TWA	400 ppm	1,600 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989)
Base oil, low viscous - Mist.	TWA		5 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989)
Base oil, low viscous - Inhalable	TWA		5 mg/m3	US. ACGIH Threshold Limit Values,

fraction.				as amended (03 2014)
base oil - Inhalable fraction.	TWA		5 mg/m3	US. ACGIH Threshold Limit Values, as amended (03 2014)
base oil	PEL	500 ppm	2,000 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006)
base oil - Mist.	PEL		5 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006)
base oil	TWA	400 ppm	1,600 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989)
base oil - Mist.	TWA		5 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989)

8.2. Exposure controls

Appropriate engineering controls: Provide adequate ventilation. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment

General information: Wash hands before breaks and after work. Use personal protective equipment as required. Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment. The usual precautionary measures should be adhered to inhandling the chemicals or the mineral oil products.

Eye/face protection: Avoid contact with skin and eyes. Goggles/face shield are recommended. If risk of splashing, wear safety goggles or face shield.

Skin protection

Hand Protection: Material: Nitrile butyl rubber (NBR).
Min. Breakthrough time: >= 480 min
Recommended thickness of the material: >= 0.38 mm

Avoid long-term and repeated skin contact. Suitable gloves can be recommended by the glove supplier. Use skin protection cream for preventive skin protection. Protective gloves, where permitted in acc. to safety directions. The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Other: Do not carry cleaning cloths impregnated with the product in trouser pockets. Wear suitable protective clothing.

Respiratory Protection: Ensure good ventilation/exhaustion at the workplace. Avoid breathing vapour/ aerosol.

Thermal hazards: No data available.

Hygiene measures:	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned.
Environmental Controls:	No data available.

9 PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical propertiesAppearance

Physical state:	liquid
Form:	liquid
Color:	Brown
Odor:	Characteristic
Odor Threshold:	Not applicable for mixtures
pH:	substance/mixture is non-soluble (in water)
Freezing point:	Not applicable for mixtures
Boiling Point:	Value not relevant for classification
Flash Point:	228 °C
Evaporation Rate:	Not applicable for mixtures
Flammability (solid, gas):	Value not relevant for classification
Flammability Limit - Upper (%)–:	Not applicable for mixtures
Flammability Limit - Lower (%)–:	Not applicable for mixtures
Vapor pressure:	Not applicable for mixtures
Relative vapor density:	Not applicable for mixtures
Density:	0.84 g/ml (15.00 °C)
Solubility(ies)	
Solubility in Water:	Insoluble in water
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	Not applicable for mixtures
Autoignition Temperature:	Value not relevant for classification
Decomposition Temperature:	Value not relevant for classification
Kinematic viscosity:	76.71 mm2/s (40.00 °C)
Explosive properties:	Value not relevant for classification
Oxidizing properties:	Value not relevant for classification
9.2 Other information	No data available.

SECTION 10: Stability and reactivity

10.1 Reactivity:	Stable under normal use conditions.
10.2 Chemical Stability:	Stable under normal use conditions.
10.3 Possibility of hazardous reactions:	Stable under normal use conditions.
10.4 Conditions to avoid:	Stable under normal use conditions.

10.5 Incompatible Materials: Strong oxidizing substances. Strong acids. Strong bases.

10.6 Hazardous Decomposition Products: Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

11 TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation: No data available.

Ingestion: No data available.

Skin Contact: No data available.

Eye contact: No data available.

Acute toxicity

Oral

Product:

Not classified for acute toxicity based on available data.

Specified substance(s)

Base oil paraffinic	LD 50 (Rat): > 5,000 mg/kg
Hydrocarbons, low viscous	LD 50 (Rat): > 5,000 mg/kg
Base oil, low viscous	LD 50 (Rat): > 5,000 mg/kg (OECD 423)
Base oil, low viscous	LD 50 (Rat): > 5,001 mg/kg (OECD 401)
base oil, low viscous	LD 50 (Rat): > 5,000 mg/kg (OECD 401)
ZnDTP	LD 50 (Rat): 3,760 mg/kg
Base oil, low viscous	LD 50 (Rat): > 5,000 mg/kg
Base oil, low viscous	LD 50 (Rat): > 5,001 mg/kg (OECD 423)

Dermal

Product:

Not classified for acute toxicity based on available data.

Specified substance(s)

Base oil paraffinic	LD 50 (Rabbit): > 5,000 mg/kg
Base oil, low viscous	LD 50 (Rabbit): > 5,000 mg/kg (OECD 402)
ZnDTP	LD 50 (Rabbit): > 5,000 mg/kg
Base oil, low viscous	LD 50 (Rabbit): > 5,001 mg/kg (OECD 402)

Inhalation

Product:

Not classified for acute toxicity based on available data.

Specified substance(s)

Base oil paraffinic	LC 50 (Rat, 4 h): > 5.53 mg/l Not classified for acute toxicity based on available data.
Hydrocarbons, low viscous	LC 50 (Rat, 4 h): > 5 mg/l Dust and mist
Base oil, low viscous	LC 50 (Rat, 4 h): > 5.53 mg/l Dust and mist
Base oil, low viscous	LC 50 (Rat, 4 h): > 5.01 mg/l Dust and mist
Base oil, low viscous	LC 50 (Rat, 4 h): > 5 mg/l (OECD 403)

Skin Corrosion/Irritation:

Product: Based on available data, the classification criteria are not met.

Specified substance(s)

Base oil paraffinic	OECD 404 Not irritant.
Base oil, low viscous	OECD 404 Not irritant

Serious Eye Damage/Eye Irritation:

Product: Based on available data, the classification criteria are not met.

Specified substance(s)

Base oil paraffinic	OECD 405 Not irritant.
Base oil, low viscous	OECD 405 Not irritating

Respiratory or Skin Sensitization:

Product: Experimental data has shown that the concentration of potentially sensitizing components present in this product does not induce skin sensitization.

Germ Cell Mutagenicity
Product: Based on available data, the classification criteria are not met.

Carcinogenicity
Product: Based on available data, the classification criteria are not met.

IARC: IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:
No carcinogenic components identified

NTP: US. National Toxicology Program (NTP) Report on Carcinogens:
No carcinogenic components identified

OSHASP: US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):
No carcinogenic components identified

Reproductive toxicity
Product: Based on available data, the classification criteria are not met.

Specific Target Organ Toxicity - Single Exposure
Product: Based on available data, the classification criteria are not met.

Specific Target Organ Toxicity - Repeated Exposure
Product: Based on available data, the classification criteria are met.

Aspiration Hazard
Product: Based on available data, the classification criteria are not met.
Specified substance(s)
Base oil paraffinic — May be fatal if swallowed and enters airways.

12 ECOLOGICAL INFORMATION

12.1 Toxicity

Acute toxicity
Product: Based on available data, the classification criteria are not met.

Fish
Specified substance(s)

Base oil paraffinic	LC 50 (Fish, 96 h): > 100 mg/l
Hydrocarbons, low viscous	LC 50 (Fish, 96 h): > 750 mg/l
Base oil, low viscous	LC 50 (Fish, 96 h): > 101 mg/l (OECD 203)
Base oil, low viscous	LC 50 (Fish, 96 h): > 100 mg/l (OECD 203)
ZnDTP	LC 50 (Fish, 96 h): 3.8 mg/l
Base oil, low viscous	LC 50 (Fish, 96 h): > 101 mg/l
Base oil, low viscous	LD 50 (Oncorhynchus mykiss, 96 h): > 101 mg/l (OECD 203)

Aquatic Invertebrates
Specified substance(s)

Base oil paraffinic	EC 50 (Water Flea, 48 h): > 100 mg/l
Hydrocarbons, low viscous	EC 50 (Water Flea, 48 h): 190 mg/l
Base oil, low viscous	EC 50 (Water Flea, 48 h): > 10,000 mg/l (OECD 202)
base oil, low viscous	EL50 (Water Flea, 48 h): > 10,000 mg/l (OECD 202)
ZnDTP	EC 50 (Water Flea, 48 h): 6.8 mg/l
Base oil, low viscous	EC 50 (Water Flea, 48 h): > 10,000 mg/l (OECD 202)
Mo-S-polymer	EL50 (Water Flea, 48 h): 50 mg/l (OECD 202)

Chronic ToxicityProduct: Based on available data, the classification criteria are not met.

Fish
Specified substance(s)

base oil, low viscous	NOEC (Fish, 14 d): > 1,000 mg/l
ZnDTP	NOEC (Fish, 4 d): 1.8 mg/l

Aquatic Invertebrates
Specified substance(s)

Base oil paraffinic	NOEC (Daphnia magna, 21 d): 10 mg/l (OECD 211)
Base oil, low viscous	NOEC (Water Flea, 21 d): 10 mg/l (OECD 211)
base oil, low viscous	NOEC (Water Flea, 21 d): 10 mg/l (OECD 211)
ZnDTP	NOEC (Water Flea, 21 d): 0.4 mg/l
Base oil, low viscous	NOEC (Daphnia magna, 21 d): > 10 mg/l
Base oil, low viscous	NOEC (Daphnia magna, 21 d): 10 mg/l (OECD 211)

Toxicity to Aquatic Plants
Specified substance(s)

Base oil paraffinic	EC 50 (Algae, 72 h): > 100 mg/l (OECD 201)
Hydrocarbons, low viscous	EC 50 (Alga, 72 h): > 1,000 mg/l
Base oil, low viscous	EC 50 (Alga, 72 h): > 101 mg/l
Base oil, low viscous	NOEC (Alga, 72 h): > 100 mg/l (OECD 201)
base oil, low viscous	NOEC (Alga, 72 h): > 100 mg/l (OECD 201)
ZnDTP	EC 50 (Alga, 72 h): 240 mg/l

Base oil, low viscous	NOEC (Algae, 72 h): > 100 mg/l
Base oil, low viscous	EC 50 (Alga, 72 h): > 101 mg/l (OECD 201)

12.2 Persistence and Degradability

Biodegradation

Product:	Not applicable for mixtures
Specified substance(s)	
Base oil, low viscous	31 % (28 d, OECD 301F) Not readily degradable.
Mo-S-polymer	22.75 % (29 d) Not easily biodegradable

12.3 Bioaccumulative potential

Product:	Not applicable for mixtures
Specified substance(s)	
Mo-S-polymer	Fish, Bioconcentration Factor (BCF): 88 (0.05 mg/l)

12.4 Mobility in soil:

Product:	Not applicable for mixtures

12.5 Results of PBT and vPvB assessment: The product does not contain any substances fulfilling the PBT/vPvB criteria.

12.6 Other adverse effects: No data available.

13 Disposal considerations

13.1 Waste treatment methods

General information: Dispose in accordance with all applicable regulations.

Disposal methods: Do not empty into drains; dispose of this material and its container in a safe way. When storing used products, ensure that the waste categories and mixing instructions are observed.

14 TRANSPORT INFORMATION

DOT
Not regulated.

IMDG - International Maritime Dangerous Goods Code
Not regulated.

IATA
Not regulated.

15 REGULATORY INFORMATION

US Federal Regulations

US State Regulations

Inventory Status

DSL	On or in compliance with the inventory
TSCA	On or in compliance with the inventory

16 OTHER INFORMATION

Revision Information: Vertical lines in the margin indicate an amendment.

Wording of the H-statements in section 2 and 3

H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H373	May cause damage to organs through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Revision Date: 24.11.2022

Disclaimer: The data contained in this safety data sheet are based on our current knowledge and experience and are given to the best of our knowledge and belief. It characterizes the product only with regard to safety requirements for handling, transport and disposal. The data do not describe the product's properties (tech. product specification). Neither should any agreed property nor the suitability of the product for any specific technical application be deduced from the data contained in this safety data sheet. Modifications on this document are not allowed. The data are not transferable to other products. In the case of mixing the product with other products or in the case of processing, the data in this safety data sheet are not necessarily valid for the new-made material. It is the responsibility of the recipient of the product to observe federal, state and local law. Please contact us to obtain up-to-date safety data sheets. This document was issued electronically and has no signature.