

SAFETY DATA SHEET

acc.to ISO/DIS 11014 for USA

1 PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifier

Product name: RENOFORM MBW 677/6

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: Metal working

Uses advised against: No uses advised against identified.

1.3 Details of the supplier of the safety data sheet

Manufacturer / Supplier	FUCHS LUBRICANTS GERMANY GmbH Friesenheimer Str. 19 68169 Mannheim
Telephone:	+49 621 3701-0 (ZENTRALE)
Fax:	+49 621 3701-570

Contact for request of safety data sheets

E-mail:	Automotive lubricants	CS.Services-FLG@fuchs.com
	Industrial lubricants	
Telephone:	+49 621 3701-0 (ZENTRALE)	

Informing department for safety data sheets

E-mail: produktsicherheit-FLG@fuchs.com

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

Skin Corrosion/Irritation Category 2

Serious Eye Damage/Eye Irritation Category 1

Environmental Hazards

Chronic hazards to the aquatic environment Category 3

Product name: RENOFORM MBW 677/6

Hazard summary

Physical Hazards: No data available.

2.2 Label Elements



Signal Words: Danger

Hazard Statement(s): H315: Causes skin irritation.
H318: Causes serious eye damage.
H412: Harmful to aquatic life with long lasting effects.

Precautionary Statements

Prevention: P264: Wash face, hands and any exposed skin thoroughly after handling.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection.

Response: P302+P352: IF ON SKIN: Wash with plenty of soap and water.
P332+P313: If skin irritation occurs: Get medical advice/attention.
P362: Take off contaminated clothing.
P321: Specific treatment (see supplemental first aid instructions on this label).
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310: Immediately call a POISON CENTER/doctor.

Disposal: P501: Dispose of contents/ container to an approved facility in accordance with local, regional, national and international regulations.

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. The product may not be released into the environment without control.

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

3 COMPOSITION / INFORMATION ON INGREDIENTS

3.2 Mixtures

Product name: RENOFORM MBW 677/6

General information: Mixture of mineral base oil, anionic and nonionic agents and corrosion preventing additives in combination with stabilizers based on glycol-fatty alcohols. This product is applied only as solution or emulsion in water.

Chemical name	Identifier	Concentration *	Notes
Sodium sulfonate	68608-26-4	5.00 - <10.00%	
Ester derivative	39464-69-2	5.00 - <10.00%	
Fatty alcohol, ethoxylated	68920-66-1	5.00 - <10.00%	
ZnDTP	4259-15-8	3.00 - <5.00%	
Base oil, naphtenic	64742-53-6	1.00 - <5.00%	
Monoethanol amine	141-43-5	1.00 - <3.00%	

* 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
Sodium sulfonate	68608-26-4	Eye Irrit. 2;H319
Ester derivative	39464-69-2	Eye Dam. 1;H318, Skin Irrit. 2;H315, Aquatic Acute 1;H400, Aquatic Chronic 3;H412
Fatty alcohol, ethoxylated	68920-66-1	Skin Irrit. 2;H315, Aquatic Chronic 2;H411
ZnDTP	4259-15-8	Eye Dam. 1;H318, Aquatic Chronic 2;H411
Base oil, naphtenic	64742-53-6	Asp. Tox. 1;H304
Monoethanol amine	141-43-5	Skin Corr. 1B;H314, Eye Dam. 1;H318, STOT SE 3;H335, Acute Tox. 4;H302, Acute Tox. 4;H312, Acute Tox. 4;H332, Aquatic Chronic 3;H412

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 Nota L/ Nota N 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: Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention.

Skin Contact: Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash contaminated clothing before reuse. Get medical attention.

Ingestion: Rinse mouth. Call a POISON CENTER or doctor/ physician if you feel unwell.

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| 4.2 Most important symptoms and effects, both acute and delayed: | Causes serious eye irritation. Causes skin irritation. |
| 4.3 Indication of any immediate medical attention and special treatment needed | Hand over this safety data sheet to the physician with the special comment "watermiscible cutting oil". 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 in accordance 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: Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away. In case of spills, beware of slippery floors and surfaces.

6.2 Environmental Precautions: Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Prevent from spreading (e.g. by binding or oil barriers). Environmental manager must be informed of all major spillages. 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.

Dike for later disposal. Prevent entry into waterways, sewer, basements or confined areas. Stop the flow of material, if this is without risk.

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SECTION 7: Handling and storage:

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| 7.1 Precautions for safe handling: | Avoid contact with eyes. Wash hands thoroughly after handling. Do not eat, drink or smoke when working with the product. Take usual precautions when handling mineral oil products or chemical products. Avoid contact with skin. Prevent formation of aerosols. Observe good industrial hygiene practices. Provide adequate ventilation. |
| 7.2 Conditions for safe storage, including any incompatibilities: | Local regulations concerning handling and storage of waterpolluting products have to be followed. Store above freezing. |
| 7.3 Specific end use(s): | Not applicable |

8 EXPOSURE CONTROLS / PERSONAL PROTECTION
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Product name: RENOFORM MBW 677/6

8.1.Exposure Limits

Chemical name	Type	Exposure Limit Values		Source
Base oil, naphthenic	PEL	500 ppm	2,000 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006)
Base oil, naphthenic - Mist.	PEL		5 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006)
Base oil, naphthenic	TWA	400 ppm	1,600 mg/m ³	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989)
Base oil, naphthenic - Mist.	TWA		5 mg/m ³	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989)
Base oil, naphthenic - Inhalable fraction.	TWA		5 mg/m ³	US. ACGIH Threshold Limit Values, as amended (03 2014)
tert. alkanolamine	TWA		5 mg/m ³	US. ACGIH Threshold Limit Values, as amended (02 2012)
Base oil, naphtenic	PEL	500 ppm	2,000 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006)
Base oil, naphtenic - Mist.	PEL		5 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006)
Base oil, naphtenic	TWA	400 ppm	1,600 mg/m ³	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989)
Base oil, naphtenic - Mist.	TWA		5 mg/m ³	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989)
Base oil, naphtenic - Inhalable fraction.	TWA		5 mg/m ³	US. ACGIH Threshold Limit Values, as amended (03 2014)
Monoethanol amine	PEL	3 ppm	6 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006)
Monoethanol amine	TWA	3 ppm	8 mg/m ³	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989)
Monoethanol amine	STEL	6 ppm	15 mg/m ³	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989)
Monoethanol amine	TWA	3 ppm		US. ACGIH Threshold Limit Values, as amended (02 2012)
Monoethanol amine	STEL	6 ppm		US. ACGIH Threshold Limit Values, as amended (02 2012)
base oil - Inhalable fraction.	TWA		5 mg/m ³	US. ACGIH Threshold Limit Values, as amended (03 2014)
base oil	PEL	500 ppm	2,000 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006)
base oil - Mist.	PEL		5 mg/m ³	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/m ³	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989)
base oil - Mist.	TWA		5 mg/m ³	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989)

8.2.Exposure controls

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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 in handling the chemicals or the mineral oil products.

Eye/face protection: Safety glasses (EN 166) recommended during refilling. Avoid contact with eyes. Avoid contact with skin and eyes. Goggles/face shield are recommended. If risk of splashing, wear safety goggles or face shield. 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 properties

Physical state:	liquid
Form:	liquid
Color:	Brown
Odor:	Characteristic

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Odor Threshold:	Not applicable for mixtures
pH:	9.7 (DIN 51369, 100 g/l, 20 °C)
Freezing point:	Not applicable for mixtures
Boiling Point:	Value not relevant for classification
Flash Point:	200 °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:	0.97 g/cm ³ (15 °C) (DIN EN ISO 12185)
Solubility(ies)	
Solubility in Water:	Soluble
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	Not applicable for mixtures
Auto-ignition temperature:	Value not relevant for classification
Decomposition Temperature:	Value not relevant for classification
Kinematic viscosity:	165 mm ² /s (40 °C, DIN 51659-2)
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:	Causes skin irritation.

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Eye contact: Causes eye irritation.

Acute toxicity**Oral****Product:**

ATEmix: 18,365.37 mg/kg

Specified substance(s)

Sodium sulfonate

LD 50 (Rat): > 5,000 mg/kg

ZnDTP

LD 50 (Rat): 4,358 mg/kg

Monoethanol amine

LD 50 (Rat): 1,515 mg/kg (OECD 401)

Dermal**Product:**

ATEmix: 47,826.09 mg/kg

Specified substance(s)

Sodium sulfonate

LD 50 (Rabbit): > 5,001 mg/kg

ZnDTP

LD 50 (Rabbit): > 5,000 mg/kg (OECD 402)

Monoethanol amine

LD 50 (Rabbit): 2,504 mg/kg (OECD 402)

Inhalation**Product:**

ATEmix: 478.26 mg/l

ATEmix: 64.65 mg/l

Specified substance(s)

Base oil, naphtenic

LC 50 (Rat, 4 h): > 5.53 mg/l
Dust and mist

Monoethanol amine

LC 50 (Rat, 4 h): > 1.487 mg/l

Skin Corrosion/Irritation:**Product:**

Based on available data, the classification criteria are met.

Specified substance(s)

ZnDTP

(Rabbit): None.

Monoethanol amine

Corrosive.

Serious Eye Damage/Eye Irritation:**Product:**

Based on available data, the classification criteria are met.

Specified substance(s)

ZnDTP

(Rabbit): Slightly irritating.

Monoethanol amine

Corrosive to skin and eyes.

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Respiratory or Skin Sensitization:

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

Specified substance(s)

ZnDTP , OECD 406-1 (Guinea Pig) Not a skin sensitizer.

Monoethanol amine , OECD 406-1 (Guinea Pig) Not a skin sensitizer.

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

OSHAS: 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 not met.

Aspiration Hazard

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

12 ECOLOGICAL INFORMATION

General information: Not applicable Not applicable

12.1 Toxicity**Acute toxicity**

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

Fish**Specified substance(s)**

ZnDTP LC 50 (Fish, 96 h): 4.4 mg/l (OECD 203)

Base oil, naphtenic LC 50 (Fish, 96 h): > 5,000 mg/l (OECD 203)

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Monoethanol amine LC 50 (Fish, 96 h): 125 mg/l

Aquatic Invertebrates

Specified substance(s)

ZnDTP EC 50 (Water Flea, 48 h): 75 mg/l (OECD 202)

Base oil, naphtenic EC 50 (Water Flea, 48 h): > 1,000 mg/l (OECD 202)

Monoethanol amine EC 50 (Water Flea, 48 h): 65 mg/l

Chronic ToxicityProduct: Based on available data, the classification criteria are met.

Fish

Specified substance(s)

ZnDTP NOEC (Fish, 4 d): 3.2 mg/l

Base oil, naphtenic NOEC (Fish, 7 d): > 5,000 mg/l

Monoethanol amine NOEC (Fish, 30 d): 1.2 mg/l

Aquatic Invertebrates

Specified substance(s)

ZnDTP NOEC (Water Flea, 21 d): 0.4 mg/l

Base oil, naphtenic NOEC (Water Flea, 21 d): > 1,000 mg/l

Monoethanol amine NOEC (Water Flea, 21 d): 0.85 mg/l (OECD 211)

Toxicity to Aquatic Plants

Specified substance(s)

ZnDTP EC 50 (Alga, 72 h): 410 mg/l
NOEC (Alga, 72 h): 220 mg/l

Monoethanol amine EC 50 (Alga, 72 h): 22 mg/l

12.2 Persistence and Degradability

Biodegradation

Product: Not applicable for mixtures

Specified substance(s)

ZnDTP 5 % (28 d, OECD 301B) Not readily degradable.

12.3 Bioaccumulative potential

Product: Not applicable for mixtures

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:

Harmful to aquatic life with long lasting effects.

Product name: RENOFORM MBW 677/6

13 Disposal considerations**13.1 Waste treatment methods**

General information: Dispose in accordance with all applicable regulations.

Disposal methods: Discharge, treatment, or disposal may be subject to national, state, or local laws.

14 TRANSPORT INFORMATION**DOT**

Not Regulated.

TDG

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

H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Revision Date: 31.08.2023

Product name: RENOFORM MBW 677/6

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.