

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier****Name of product** TS-D**1.2. Relevant identified uses of the substance or mixture and uses advised against Recommended intended purpose(s)**

see Product information

1.3. Details of the supplier of the safety data sheet**Manufacturer/distributor**FUCHS LUBRITECH GMBH
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reach@fuchs-lubritech.de**1.4. Emergency telephone number****Emergency advice**+49 (0)171 / 4632154
Phone 06301/3206-808
This number is only available at office times.**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****Classification according to 67/548/EEC or 1999/45/EC**

R10

R-phrases

10 Flammable.

! Classification according to Regulation (EC) No 1272/2008 [CLP/GHS]

Hazard classes and Hazard categories Hazard Statements Classification procedure

Flam. Liq. 3

H226

2.2. Label elements**Labelling according to Regulation (EC) No 1272/2008 [CLP/GHS]**

GHS02

! Signal word

Warning

Hazard Statements

H226 Flammable liquid and vapour.

Precautionary Statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P501 dispose product/ container in accordance with local regulations

2.3. Other hazards**Information pertaining to special dangers for human and environment**

none at appropriate handling and storage

SECTION 3: Composition/ information on ingredients**3.1. Substances**

not applicable

3.2. Mixtures**Description**

Mixture of resin and solid lubricants in a solvent compound

Hazardous ingredients

CAS No	EC No	Name	[% weight]	Classification according to 67/548/EEC
107-98-2 108-65-6	203-539-1	Monopropylene glycol methyl ether 2-methoxy-1-methylethylacetate	2,4 - 4,9 50 - 99	R10; R67 10

CAS No	EC No	Name	[% weight]	Classification according to Regulation (EC) No 1272/2008 [CLP/GHS]
107-98-2 108-65-6	203-539-1	Monopropylene glycol methyl ether 2-methoxy-1-methylethylacetate	2,4 - 4,9 50 - 99	Flam. Liq. 3, H226 / STOT SE 3, H336 Lam. Liq.3, H226 /

Additional advice

none at appropriate handling and storage

SECTION 4: First aid measures**4.1. Description of first aid measures****General information**

Remove contaminated soaked clothing immediately, don't leave to dry.

In case of inhalation

Ensure of fresh air.

In the event of symptoms refer for medical treatment.

In case of skin contact

In case of contact with skin wash off with warm water.

Don't use organic solvents

Consult a doctor if skin irritation persists.

In case of eye contact

In case of contact with eyes rinse with plenty of water carefully. In the event of persistent symptoms seek medical treatment.

In case of ingestion

Do not induce vomiting.

Do not make mouth-to-mouth resuscitation.

Call for a doctor immediately.

Rinse out mouth and give plenty of water to drink.

4.2. Most important symptoms and effects, both acute and delayed**Physician's information / possible symptoms**

Coughing

Headache

4.3. Indication of any immediate medical attention and special treatment needed**Treatment (Advice to doctor)**

Treat symptoms.

SECTION 5: Firefighting measures**5.1. Extinguishing media****Suitable extinguishing media**

Alcohol-resistant foam

Dry fire-extinguishing substance

Carbon dioxide

water mist

Unsuitable extinguishing media

Full water jet

5.2. Special hazards arising from the substance or mixture

Fire gas of organic material has to be classed invariably as respiratory poison.

5.3. Advice for firefighters**Special protective equipment for fire-fighters**

In case of rescue and maintenance activities in storage containers use environment-independent breathing apparatus because of risk of suffocation by edging out of air oxygen

Wear suitable personal protective equipment for fire extinguishing measures.

Additional information

Cool endangered containers with water spray jet.

Apply foam in large quantities because some of it is destroyed by the product.

Collect contaminated firefighting water separately, must not be discharged into the drains.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures****For non-emergency personnel**

Ensure adequate ventilation.

Use personal protective clothing.

Keep away sources of ignition.

High risk of slipping due to leakage/spillage of product.

For emergency responders

Entzündlich

6.2. Environmental precautions

Do not discharge into the drains or bodies of water..

Prevent spread over a wide area (e.g. by containment or oil barriers).

Suppress gases/vapours/mists with water spray jet

Do not discharge into the subsoil/soil.

6.3. Methods and material for containment and cleaning up

Take up with absorbent material (e.g. general-purpose binder).

Cleaning measures with respiratory protection.

Take up soaked earth.

Additional Information

Entzündlich

6.4. Reference to other sections

Safe handling: see section 7

Disposal: see section 13

Personal protection equipment: see section 8

Emergency telephone number: see section 1

SECTION 7: Handling and storage**7.1. Precautions for safe handling****Advice on safe handling**

Care for thoroughly room ventilation, if necessary use in well ventilated area with local exhaust ventilation at workplace.

During thermal processing and / or machining extraction at processing machines is necessary.

Use explosion-protected equipment / fittings.

Avoid heating above 80°C

Use solvent-resistant equipment.

General protective measures

Avoid contact with eyes and skin

Do not inhale gases/vapours/aerosols.

Hygiene measures

Cloths contaminated with product should not be kept in trouser pockets.

Follow general rules of industrial hygiene for safe handling of chemical products

At work do not eat, drink and smoke.

Remove soiled or soaked clothing immediately.

Work in rooms with good ventilation.

Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking

The product is combustible.

Vapours can form an explosive mixture with air.

Highly volatile, flammable components are released in processing.

Risk of explosion if the liquid enters the sewage system.
Ignitable mixtures can be formed in the empty container.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Prevent penetration into the ground.

Advice on storage compatibility

Do not store together with oxidising and self-inflammable materials.

Further information on storage conditions

Keep container tightly closed, store at cool and aired place, open and handle carefully.

Protect from heat and direct solar radiation.

Store in a dry place.

Recommended storage temperature: room temperature.

Information on storage stability

In enclosed original container and at storage temperature of 25 °C maximum product keeps stable for at least 12 months.

See technical information about storage of lubricants

Storage group 3

Fire class B

7.3. Specific end use(s)

Recommendation(s) for intended use

see Product information

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Ingredients with occupational exposure limits to be monitored

CAS No	Name	Code	[mg/m ³]	[ppm]		Remark
108-65-6	2-methoxy-1-methylethylacetate	8 hours	270	50	1(l)	DFG, EU, Y
107-98-2	1-methoxy-2-propanol	8 hours	370	100	2(l)	DFG, EU, Y

Indicative occupational exposure limit values (91/322/EEC, 2000/39/EC, 2006/15/EC or 2009/161/EU)

CAS No	Name	Code	[mg/m ³]	[ppm]		Remark
107-98-2	1-methoxy-2-propanol	8 hours	375	100		skin
		Short-term	568	150		

Additional advice

As basis for this information served the valid references.

8.2. Exposure controls

Respiratory protection

Not necessary with good room ventilation

Hand protection

Gloves (solvent-resistant)

nitrile gloves

Eye protection

tightly fitting goggles, in case of splashing

Other protection measures

Usual working clothes for chemical industries

Appropriate engineering controls

Exhaust or ventilation at higher working temperatures

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

liquid

Colour

white

Odour

of organic solvents

Odour threshold

not determined

Important health, safety and environmental information

	Value	Temperature	at	Method	Remark
pH value					not applicable
boiling range	143 - 151 °C			DIN 51751	concerning solvent
starts to melt	< -64 °C			ASTM D 97	concerning solvent
Flash point	32 °C			DIN/ISO 2592	
Vapourisation rate	not determined				
Flammable (solid)	not determined				
Flammability (gas)	not determined				
Ignition temperature	333 °C			DIN 51794	information concern solvent
Self ignition temperature					unknown
Lower explosion limit	ca. 1,5 Vol-%				
Upper explosion limit	ca. 7 Vol-%				
Vapour pressure	not determined				
Relative density	0,98 g/cm3	20 °C		DIN 51757	
Vapour density	not determined				
Solubility in water					more or less insoluble
Solubility/other	not determined				
Partition coefficient n-octanol/water (log P O/W)	not determined				
Decomposition temperature	not determined				
Viscosity	not determined				

Oxidising properties

No information available.

Explosive properties

In and after use danger of production of inflammable compounds
Possible explosive electrical discharge on account of static charge

9.2. Other information

Product effects hygroscopic.

SECTION 10: Stability and reactivity

10.1. Reactivity

No information available.

10.2. Chemical stability

No information available.

10.3. Possibility of hazardous reactions

No information available.

10.4. Conditions to avoid

Evolution of flammable mixtures possible in air when heated above flash point and/or during spraying or misting.

10.5. Incompatible materials

Materials to avoid

Reactions with oxidising agents.
Reactions with alkalies.

10.6. Hazardous decomposition products

thermal decomposition:
Carbon monoxide and carbon dioxide.
Flammable gases/vapours

Thermal decomposition

Remark No decomposition if used as directed.

Additional information

Bildung explosionsfähiger Gemische beim Versprühen: Beachte UVV 23 sowie ZH 1/10 (only GER)

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity/Irritability/Sensitization

	Value/Validation	Species	Method	Remark
LD50 acute oral	> 2000 mg/kg	rat		Information concerns to main component.
LD50 acute dermal	> 2000 mg/kg	rabbit		Information concern to main component.
LC50 acute inhalation	> 5 mg/l (4 h)	rat		Information refers to main component.
Irritability skin				frequent and/or persistent contact may cause skin irritation
Irritability eye	irritant			
Skin sensitization	No sensitizing effect known			

Experiences made from practice

Frequent persistent contact with the skin may cause skin irritation.
After evaporation of solvent/water - quota a physiological GRAS sliding coat remains

Additional information

Toxical dates refer to solvent.
The product was classified on the basis of the calculation procedure of the directive 67/548/EEC (conventional method).

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicological effects

	Value	Species	Method	Validation
Fish	LC50 > 100 mg/l			Information refers to main component.
Daphnia	EC50 > 100 mg/l			Information refers to main component.
Algae	EC50 > 1000 mg/l			Information refers to main component.
Bacteria	EC50 > 1000 mg/l			Information refers to main component.

12.2. Persistence and degradability

Biological degradability not determined

12.3. Bioaccumulative potential

The product has not been tested. Because of the product's consistency and low solubility in water bioavailability is not likely.
preparation is water insoluble and does not formate emulsion

12.4. Mobility in soil



No information available.

12.5. Results of PBT and vPvB assessment

No information available.

12.6. Other adverse effects

Behaviour in sewage plant

Product gets duly not into waste water before it is not treated according to the local regulations.

General regulation

Product is not allowed to be discharged into the ground water or aquatic environment.
The information to ecology refers to solvent.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Recommendations for the product

Waste disposal in accordance with the relevant regulations.

Recommendations for packaging

Totally emptied packaging may be taken for recycling.
Dispose one-trip container according to local authority prescriptions
EAK 15 01 10: packing material with harmful contamination

General information

Ultimately responsible for correct classification is the waste producer, as the EWC names different codes for different origins of same waste

SECTION 14: Transport information

	ADR/RID	IMDG	IATA-DGR
14.1. UN number	1993	1993	1993
14.2. UN proper shipping name	FLAMMABLE LIQUID, N.O.S. (1-methoxy-2-propyl acetate)	FLAMMABLE LIQUID, N.O.S. (1-methoxy-2-propyl acetate)	Flammable liquid, n.o.s. (1-methoxy-2-propyl acetate)
14.3. Transport hazard class(es)	3	3	3
14.4. Packing group	III	III	III
14.5. Environmental hazards	No	No	No

14.6. Special precautions for user

No information available.

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

No information available.

Land and inland navigation transport ADR/RID

Hazard label(s) 3
tunnel restriction code D/E
Special provisions 640E
Classification code F1

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

VOC standard

VOC content ca.69,5 %

National regulations

Other regulations, restrictions and prohibition regulations

ZH 1/124 "Plant instructions for working with hazardous substances (A 010)"
ZH 1/319 "Data Sheet: Solvents (M 017)"



Water hazard class

1 Mixture-WGK according to VwVwS (GER)

15.2. Chemical Safety Assessment

No information available.

! SECTION 16: Other information

Training advice

Use information in this MSDS

Recommended uses and restrictions

usage only according to instructions for use and observance of warning notes
National and local regulations concerning chemicals shall be observed.

Further information

The information given in this MSDS is based on the present state of knowledge and is intended to describe our products from the point of view of safety requirements only.

Substantial changes to the former version are marked by "!" on the left margin of the paper.

All the raw materials in this product are listed in NECSI (Taiwan)

Refer to product information paper.

Indication of changes: "!" = Data changed compared with the previous version. Previous version: 2.0

Sources of key data used

Material Safety Data Sheets of raw materials

Wording of the R/H-phrases specified in chapter 3 (not the classification of the mixture!)

R 10 Flammable.

R 67 Vapours may cause drowsiness and dizziness.

-?-

H226 Flammable liquid and vapour.

H336 May cause drowsiness or dizziness.