

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier	
Name of product	gleitmo 980 SPRAY
1.2. Relevant identified uses of the substance or n Recommended intended purpose(s) Aerosol Solid film lubricant	nixture and uses advised against
1.3. Details of the supplier of the safety data sheet	
Manufacturer/distributor	FUCHS LUBRITECH GMBH Werner-Heisenberg-Straße 1, D-67661 Kaiserslautern/Germany Phone +49 (0) 6301 3206 - 0, Fax +49 (0) 6301 3206 - 940 E-Mail reach@fuchs-lubritech.de Internet www.fuchs-lubritech.com
Advice	Product Safety Management Phone +49 (0) 6301 3206 - 0 Fax +49 (0) 6301 3206 - 940 E-mail (competent person): 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.

SEC

2.1. Classification of	of the substance	e or mixture	
Classification acco	ording to 67/548/	/EEC or 1999/45/EC	
F+; R12			
R-phrases	Extremely flam	mable.	
Classification acco	ording to Regula	ation (EC) No 1272/200	08 [CLP/GHS]
Hazard classes and Ha	zard categories	Hazard Statements	Classification procedure
Aerosol 1		H222, H229	
	g to Regulation	(EC) No 1272/2008 [CI	LP/GHS]
GHS02			
GHS02 Signal word Danger			
Signal word	Extremely flamr	mable aerosol. ntainer: May burst if heated	d.
Signal word Danger Hazard Statements H222	Extremely flamr Pressurised cor		d.
Signal word Danger Hazard Statements H222 H229	Extremely flamr Pressurised cor	ntainer: May burst if heated	d.
Signal word Danger Hazard Statements H222 H229 Precautionary State	Extremely flamm Pressurised cor ements Keep out of rea Keep away fron Do not spray or	ntainer: May burst if heated ach of children.	s, open flames and other ignition sources. No smoking.



Special rules for supplemental label elements for certain mixtures

Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50 °C. Do not pierce or burn, even after use. Do not spray on a naked flame or any incandescent material. Keep away from sources of ignition - No smoking. Keep out of the reach of children.

2.3. Other hazards

Information pertaining to special dangers for human and environment

Application may cause development of explosive / inflammable vapour-air-mixtures May be irritating to eyes, at repeated exposure irritating to skin

! SECTION 3: Composition/ information on ingredients

3.1. Substances

not applicable

3.2. Mixtures

Description

propellant: propane / butane PTFE - dispersion in solvent

! Hazardous ingredients

CAS No	EC No	Name	[% weight]	Classification according to 67/548/EEC
71-36-3	200-751-6	butan-1-ol	1 < 2,4	R10; Xn R22; Xi R37/38-41; R67
74-98-6	200-827-9	propane	5 - 10	F+ R12
75-28-5	200-857-2	isobutane	5 - 10	F+ R12
106-97-8	203-448-7	butane	50 - 99	F+ R12
64742-48-9	265-150-3	Kohlenwasserstoffe, aliphatisch	1 < 10	Xn; R 10, 65, 66, 67
CAS No	EC No	Name	[% weight]	Classification according to Regulation (EC) No 1272/2008 [CLP/GHS]
71-36-3	200-751-6	butan-1-ol	1 < 2,4	Flam. Liq. 3, H226 / Acute Tox. 4, H302 / STOT SE 3, H335 / Skin Irrit. 2, H315 / Eye Dam. 1, H318 / STOT SE 3, H336
74-98-6	200-827-9	propane	5 - 10	Flam. Gas 1, H220 / Press. Gas
75-28-5	200-857-2	isobutane	5 - 10	Flam. Gas 1, H220 / Press. Gas
106-97-8	203-448-7	butane	50 - 99	Flam. Gas 1, H220 / Press. Gas
64742-48-9	265-150-3	Kohlenwasserstoffe, aliphatisch	1 < 10	Asp. Tox.1, H304 / Flam. Liq. 3, H226 / Aquatic Chronic 3, H4
REACH				
CAS No	Name			REACH registration number
74-98-6	propane			Exempt
106-97-8	butane			Exempt
Additional a	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 immediately with soap and 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.

If swallowed seek medical advice immediately and show the doctor packing or label.

4.2. Most important symptoms and effects, both acute and delayed

Physician's information / possible symptoms Coughing Headache

Confusion



Physician's information / possible dangers Aspiration hazard when vomiting after swallow up

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 Foam Dry fire-extinguishing substance Carbon dioxide Water spray jet

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

Use breathing apparatus with independent air supply.

Additional information

Cool endangered containers with water spray jet. Explosion risk in case of longer heating

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel Ensure adequate ventilation. Keep away sources of ignition. Avoid contact with skin and eyes High risk of slipping due to leakage/spillage of product.

6.2. Environmental precautions

Do not discharge into the drains/surface waters/groundwater. active agent: 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

Suck off by room ventilation. Take up with absorbent material (e.g. general-purpose binder).

Additional Information

Informations for disposal see chapter 13.

6.4. Reference to other sections

No information available.

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.

General protective measures

Avoid contact with eyes and skin Do not inhale gases/vapours/aerosols.

Hygiene measures

Clean skin thoroughly after working. Cloths contaminated with product should not be kept in trouser pockets. At work do not eat, drink, smoke or take drugs. Follow general rules of industrial hygiene for safe handling of chemical products



Work in rooms with good ventilation. Keep away from food and drink. Storing of food in workroom forbidden.

Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking The product is extremely flammable. Vapours can form an explosive mixture with air. Bursting hazard with fire expansion and injury danger near fire

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels Keep in closed original container.

Don't store in staircases and passage-ways

Advice on storage compatibility Do not store together with oxidising and self-inflammable materials.

Further information on storage conditions

Store only in closed original container at cool and aired place. Protect from heat and direct solar radiation. Keep container dry. Keep in a cool place, heat causes increase in pressure and risk of bursting.

Information on storage stability

Storage time: 24 months. 2B

Fire class B

7.3. Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Ingredients with occupational exposure limits to be monitored

CAS No	Name	Code	[mg/m3]	[ppm]		Remark
106-97-8	butane	8 hours	2400	1000	4(II)	DFG
71-36-3	butan-1-ol	8 hours	310	100	1 (I)	DFG, Y
75-28-5	isobutane	8 hours	2400	1000	4(II)	DFG
74-98-6	propane	8 hours	1800	1000	4(II)	DFG
64742-48-9	aliphatics, cycloparaffin	8 hours	1000			8h, TRGS 900 / 901
biological lin	nits (TRGS 903)					
CAC No.	News	Devemeter	DOW		Evenination	Test data

CAS NO	Name	Parameter	BGW	material	Test date
71-36-3	Butanol-1-ol (1-Butanol)	Butanol-1-ol (1-Butanol) (nach Hydrolyse)	2 mg/g Kreatinin	U	d
71-36-3	Butanol-1-ol (1-Butanol)	Butanol-1-ol (1-Butanol) (nach Hydrolyse)	10 mg/g Kreatinin	U	b

Additional advice

As basis for this information served the valid references.

8.2. Exposure controls

Respiratory protection

Not required at determined application

Hand protection

As the product is a preparation of several substances, the actual resistance of the materials used for gloves cannot be scientifically calculated; it is therefore mandatory to check this before using the product.

The break through time depends on the mechanical stress imposed and must therefore be checked individually.

Wear gloves of PVC at prolonged or intensive skin contact nitrile gloves

Eye protection

safety goggles

Other protection measures

Usual working clothes for chemical industries



Appropriate engineering controls

Do not inhale aerosols caused by spraying application Use only in well-ventilated places

SECTION 9: Physical and chemical properties

9.1. Information on basic	physical and chemi	ical properties			
Appearance		Colour		Odour	
aerosol		colourless		like petrol (ga	asoline)
Odour threshold not determined					
Important health, safety a	nd environmental i	nformation			
	Value	Temperature	at	Method	Remark

	10.00	romporatoro	a	mounou	. Iomani
pH value					not applicable
boiling range	not applicable				Aerosols
Melting point / Freezing point	not determined				
Flash point	℃ 0 >				Active agent + solved propellant pro rata
Vapourisation rate	not determined				
Flammable (solid)	not determined				
Flammability (gas)	not determined				
Ignition temperature	not determined				
Self ignition temperature					unknown
Lower explosion limit	not determined				
Upper explosion limit	not determined				
Vapour pressure	2900 - 3900 hPa	20 °C			Aerosol can pressure
Relative density	0,6 - 0,61 g/cm3	20 °C			Active agent + solved propellant pro rata
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					
Explosive properties					

In and after use danger of production of inflammable compounds Danger of bursting when heating over 50 $^{\circ}\mathrm{C}$

9.2. Other information

Vapours are heavier than air. flammable liqiud





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

Because of the high vapour pressure, containers are liable to burst if temperature rises. Evolution of flammable mixtures possible in air when heated above flash point and/or during spraying or misting. Formation of explosive gas/air mixtures.

10.5. Incompatible materials

Materials to avoid

Reactions with oxidising agents.

10.6. Hazardous decomposition products

none at appropriate handling and storage

Thermal decomposition

Remark

No decomposition if used as directed.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity/Irritability/Sensitization

	Value/Validation	Species	Method	Remark		
LD50 acute oral				not determined		
Irritability skin			frequent and/or persistent contact may cause skin irritation			
Irritability eye	may have irritating effect			if splash reaches eye		
Skin sensitization	No sensitizing effect known					
Experiences made from practice After evaporation of solvent/water - quota a physiological GRAS sliding coat remains						

Additional information

No toxical dates available.

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

Ecoloxicological chicolo			
Value	Species	Method	Validation
Fish			not determined
12.2. Persistence and degradability			
Biological			not determined
degradability			
12.3. Bioaccumulative potential			
The product has not been tested. Because of the pro-	duct's consistency and low solubility	in water bioavailability is not	likely.
preparation is water insoluble and does not formate e	mulsion		
12.4 Mobility in soil			

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

Ecological dates are not available. Do not allow uncontrolled leakage of product into the environment. Product is not allowed to be discharged into aquatic environment.

SECTION 13: Disposal considerations

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13.1. Waste treatment methods

Recommendations for the product Disposal according to local authority prescriptions

Recommendations for packaging

Totally emptied packaging may be taken for recycling. Aerosol cans with residual pressure shall be collected and shipped in containers with venting facitlities in accordance with GGVSEB. Dispose one-trip container according to local authority prescriptions

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

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	ADR/RID	IMDG	IATA-DGR
14.1. UN number	1950	1950	1950
14.2. UN proper shipping name	AEROSOLS	AEROSOLS	Aerosols, flammable
14.3. Transport hazard class(es)	2.1	2.1	2.1
14.4. Packing group	-	-	-
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) 2.1 tunnel restriction code D Classification code 5F Minor quantities are not considered

Marine transport IMDG

Labelling: AEROSOLS UN 1950

Air transport ICAO/IATA-DGR

UN-4G/Y fibreboard boxes required

SECTION 15: Regulatory information

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

VOC standard VOC content

ca.98 %



National regulations Other regulations, restrictions and prohibition regulations Take note of: TRG 300 "Aerosole" (GER) Mixture-WGK according to VwVwS (GER) Water hazard class 1

Annex I, No. 11

Decree for case of interference/ remarks

15.2. Chemical Safety Assessment

Chemical Safety Assessments for mixtures is not required.

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 TSCA. 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: 3.0 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 12 Extremely flammable.
- R 22 Harmful if swallowed.
- R 37/38 Irritating to respiratory system and skin.
- R 41 Risk of serious damage to eyes.
- R 65 Harmful: may cause lung damage if swallowed.
- R 66 Repeated exposure may cause skin dryness or cracking.
- R 67 Vapours may cause drowsiness and dizziness.

- H220 Extremely flammable gas. H222
- Extremely flammable aerosol. H226 Flammable liquid and vapour.
- H229 Pressurised container: May burst if heated.
- H302 Harmful if swallowed.
- H304
- May be fatal if swallowed and enters airways. H315
- Causes skin irritation. H318 Causes serious eye damage.
- H335 May cause respiratory irritation.
- H336 May cause drowsiness or dizziness.
- Harmful to aquatic life with long lasting effects. H412