

## Safety Data Sheet according to EC-Regulation 91/155/EEC

### 1. Identification of the substance/preparation and of the company/undertaking

#### Identification of the substance or preparation

**VOLLSYNTHESE MOTOR OIL 5W40 5L**

**Art.:2041**

#### Use of the substance/preparation

Motor oil

#### Company/undertaking identification

LIQUI MOLY GmbH, Jerg-Wieland-Straße 4, D-89081, Ulm-Lehr

Telephone (+49) 0731-1420-0, Fax (+49) 0731-1420-88

#### Emergency telephone / Office for advice

#### Advisory office in case of poisoning:

Tel.:

#### Telephone number of the company in case of emergencies:

Tel. (+49) 0731-1420-0

### 2. Composition/information on ingredients

2.1 Chemical name	content %	symbol	R-phrases	CAS	EINECS, ELINCS
Zinc alkyl dithiophosphate	0,5 - 2	Xi	36/38	n.v.	
Alkylphenol	0,25 - 1	N	50-53	n.v.	

For complete wording of the R-phrases, refer to point 16.

### 3. Hazards identification

Preparation is classified as hazardous in the sense of directive 1999/45/EC.

#### 3.1 To people

See point 11 and 15.

Not applicable

#### 3.2 To the environment

See point 12.

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Product can compose a film on the water surface, which can prevent oxygen exchange.

### 4. First aid measures

#### 4.1 Inhalation

Remove person from danger area.

Supply person with fresh air and consult doctor according to symptoms.

#### 4.2 Eye contact

Wash thoroughly for several minutes using copious water. Seek medical help if necessary.

Keep Data Sheet available.

#### 4.3 Skin contact

Wash thoroughly with soap and copious water - remove contaminated clothing immediately. If skin irritation occurs (redness etc.), consult doctor.

#### 4.4 Ingestion

Do not induce vomiting. Consult doctor immediately.

#### 4.5 Special resources necessary for first aid

n.g.

### 5. Fire-fighting measures

### 5.1 Suitable extinguishing media

CO2  
Foam  
Dry extinguisher  
Water jet spray  
Cool container at risk with water.

### 5.2 Extinguishing media which must not be used for safety reasons

High volume water jet

### 5.3 Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases

In case of fire the following can develop:

Oxides of carbon  
H2S  
Oxides of nitrogen  
Oxides of phosphorus  
Oxides of sulphur  
Flammable vapour/air mixtures.  
Hot product gives off combustible vapours.

### 5.4 Special protective equipment for fire-fighters

Protective respirator with independent air supply  
According to size of fire  
Full protection, if necessary

### 5.5 Further information

Dispose of contaminated extinction water according to official regulations.

## 6. Accidental release measures

Refer to point 13. and for personal protection refer to point 8.

### 6.1 Personal precautions

Ensure sufficient supply of air.  
Avoid formation of oil mist.  
Avoid contact with eyes or skin.  
Do not carry cleaning cloths soaked in product in trouser pockets.  
Caution - risk of slipping.

### 6.2 Environmental measures

If leakage occurs, dam up.  
Prevent from entering drainage system.  
Prevent surface and ground-water infiltration, as well as ground penetration.  
If accidental entry into drainage system occurs, inform responsible authorities.

### 6.3 Methods for cleaning up

Collect using absorbant material (e.g. Universal binding medium), and dispose of according to point 13.

## 7. Handling and storage

### 7.1 Handling

#### Tips for safe handling:

See point 6.1  
Ensure good ventilation.  
Keep away from sources of ignition - Do not smoke.  
Do not heat to temperatures close to flash point.  
Take measures against electrostatic charging, if appropriate.  
Wash hands before breaks and at end of work.  
Eating, drinking, smoking, as well as food-storage, is prohibited in work-room.  
General hygiene measures for the handling of chemicals are applicable.  
Observe directions on label and instructions for use.  
Use working methods according to operating instructions.

### 7.2. Storage

#### Requirements for storage rooms and containers:

Not to be stored in gangways or stair wells.  
Store products only unopened, in original packing.

#### Special storage conditions:

See point 10.2

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Revision: 15.07.2004 Replaces the version of: 12.02.2004 Printing date: 16.07.2004

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Protect against moisture and store closed.

## 8. Exposure controls/personal protection

Ensure good ventilation. This can be achieved by local suction or general air extraction.

If this is insufficient to maintain the concentration under the OES, MEL or MAK values, suitable breathing protection should be worn.

Applies only if maximum permissible exposure values are listed here.

Chemical name	content %	OES, MEL, MAK, TRK	BMGV, BAT
Oil mist, mineral		5 mg/m <sup>3</sup>	
8.1 Respiratory protection: With oil mist formation Filter A P 3 (EN 141)		Normally not necessary.	
8.2 Hand protection: If applicable Protective nitrile gloves (EN 374) Protective Neopren gloves (EN 374). Protective hand cream recommended.		Protective gloves, oil resistant (EN 374)	
8.3 Eye protection:		Tight fitting protective goggles (EN 166) with side protection, with danger of projections.	
8.4 Skin protection:		Protective working garments (e.g. safety shoes EN 344, long-sleeved protective working garments)	

Additional information on hand protection - No tests have been performed.

Selection made for preparations according to the best available knowledge and information on the ingredients.

Selection of materials derived from glove manufacturer's indications.

Final selection of glove material must be made taking the breakthrough times, permeation rates and degradation into account.

Selection of a suitable glove depends not only on the material but also on other quality characteristics and varies from manufacturer to manufacturer.

In the case of preparations the resistance of glove materials cannot be calculated in advance so it has to be tested before use. The exact breakthrough time of the glove material can be requested from the protective glove manufacturer and must be observed.

## 9. Physical and chemical properties

Physical state:	Liquid
Colour:	Brown
Odour:	Characteristic
10 % pH-value:	k.D.v.
Boiling point / range (°C):	k.D.v.
Melting point / range (°C):	- 45
Flash point (°C):	230
Autoflammability:	k.D.v.
Minimum limit of explosion:	k.D.v.
Maximum limit of explosion:	k.D.v.
Vapour pressure:	k.D.v.
Relative density (g/ml):	0,850
Solubility in water:	Insoluble
Viscosity:	92 mm <sup>2</sup> /s/40°C, 14,8 mm <sup>2</sup> /s/100°C

## 10. Stability and reactivity

### 10.1 Conditions to avoid

See point 7

Stable when handled and stored correctly.

Protect from humidity.

Open flame, ignition sources

### 10.2 Materials to avoid

See point 7

Avoid contact with strong oxidizing agents.

Avoid contact with other chemicals.

### 10.3 Hazardous decomposition products

See point 5.3

## 11. Toxicological information

**11.1 Acute toxicity and immediate effects**

11.1.1 Ingestion, LD50 rat oral (mg/kg):	k.D.v.
11.1.2 Inhalation, LC50 rat inhal.(mg/l/4h):	k.D.v.
11.1.3 Skin contact, LD50 rat dermal (mg/kg):	k.D.v.
11.1.4 Eye contact:	k.D.v.

**11.2 Delayed and chronic effects**

11.2.1 Sensitization:	k.D.v.
11.2.2 Carcinogenicity:	k.D.v.
11.2.3 Mutagenicity:	k.D.v.
11.2.4 Reproductive toxicity:	k.D.v.
11.2.5 Narcosis:	k.D.v.

**11.3. Further information**

No classification according to calculation procedure.

The following may occur:

Irritation of the eyes

With long-term contact:

Product removes fat

Drying of the skin.

Dermatitis (skin inflammation)

In the event of contact with the hot product:

Irritation of the respiratory tract

**12. Ecological information**

Water hazard class (Germany):	2
Self classification:	Yes (VwVwS)
Persistence and degradability:	n.v.
Behaviour in sewage plants:	k.D.v.
Aquatic toxicity:	k.D.v.
Ecological toxicity:	k.D.v.

**13. Disposal considerations****13.1. for the material / preparation / residue**

Soaked polluted cloths, paper or other organic materials represent a fire hazard and should be controlled, collected and disposed of.

EC disposal code no.:

The waste codes are recommendations based on the scheduled use of this product.

Owing to the user's specific conditions for use and disposal, other waste codes may be allocated under certain circumstances.

13 02 05 - mineral-based non-chlorinated engine, gear and lubricating oils

Recommendation:

Pay attention to local and national official regulations

Implement substance recycling.

E.g. suitable incineration plant.

**13.2 for contaminated packing material**

See point 13.1

Pay attention to local and national official regulations

15 01 01 - paper and cardboard packaging

15 01 02 - plastic packaging

15 01 04 - metallic packaging

Empty container completely.

Uncontaminated packaging can be recycled.

Dispose of packaging that cannot be cleaned in the same manner as the substance.

**14. Transport information****General statements**

UN-Number: n.a.

**Road/Rail-transport (ADR/RID)**

Class/packing-group: n.a.

Classification code: n.a.

LQ: n.a.

**Transport by sea**

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IMDG-code:	n.a.	(class/packing-group)
EmS:		
Marine Pollutant:	n.a.	
<b>Transport by air</b>		
IATA:	n.a.	(class/secondary danger/packing-group)

**Additional information:**

Non-dangerous material according to Transport Regulations.

## 15. Regulatory information

### Classification according to Dangerous Product Regulations incl. EC Directives (67/548/EEC and 1999/45/EC)

Symbols:	Not applicable
Indications of danger:	---
R-phrases:	
52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.	
S-phrases:	
56 Dispose of this material and its container to hazardous or special waste collection point.	
Additions:	n.a.
Observe restrictions:	Yes
VOC 1999/13/EC ---	

## 16. Other information

These details refer to the product as it is delivered.

Storage class VCI (Germany):	10
Revised points:	15

The following phrases represent the prescribed R-phrases for the ingredients (designated in point 2):

36/38 Irritating to eyes and skin.  
50 Very toxic to aquatic organisms.  
53 May cause long-term adverse effects in the aquatic environment.

## Legend:

n.a. = not applicable / n.v., k.D.v. = not available / n.g. = not checked / OES = Occupational exposure standard  
MEL = Maximum exposure limit / BMGV = Biological monitoring guidance value / MAK = Maximum concentration for work place (Germany) (Germany) / TRK = Technical guidance concentration (Germany) / BAT = Biological tolerance for work place (Germany)  
VbF = Regulations for flammable liquids (Germany) / TRbF = Technical regulations for flammable liquids (Germany)  
WGK = water hazard class (Germany) - WGK 3 = very hazardous, WGK 2 = hazardous, WGK 1 = slightly hazardous to water  
VOC = Volatile organic compounds / AOX = Adsorbable organic halogen compounds  
VwVwS = Administrative Order relating to substances hazardous to water (Germany)  
The statements made here should describe the product with regard to the necessary safety precautions - they are not meant to guarantee definite characteristics - but they are based on our present up-to-date knowledge.  
No responsibility.  
These statements were made by:  
**Chemical Check GmbH, Beim Staumberge 3, D-32839 Steinheim, Tel.: 01805-CHEMICAL / 01805-243 642, Fax: 05233-941790**

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