

**Safety Data Sheet**  
**according to EEC-Regulation 91/155/ EEC**



**1. Identification of the substance/preparation and of the company/undertaking**  
**Identification of the substance or preparation**

**hydraulic oil**  
**VAICO ref.: 60-0017**

**Use of the substance / preparation**

Refer to description of material or preparation

**Company / undertaking identification**

VIEROL AG  
Karlstr. 19  
D – 26123 Oldenburg

**2. Ingredients Composition and Information**

**2.1 Chemical Description:** Mixture of carbohydrates with additives.

**2.2 Hazardous Components:** When handled according to proper procedures there is no danger in using this material, based upon the knowledge that we possess at this time.

Classification according to the TRGS 220: Mixture

**3. Possible Hazards**

**3.1 Characterization of Hazards:** This product is not considered to be especially hazardous, but should be handled in accordance with good industrial hygiene and safety practices, as listed under "Handling and Storage" (section 7) and "Personal Protection" (section 8).

**4. First-Aid Measures**

**4.1 General Advice:** Skin contact can result in skin irritation and the removal of the natural oils from the skin. Change soaked clothing and shoes immediately.

**4.2 Inhalation:** Fresh air; usually no further remedies are required. If symptoms persist obtain medical advice.

**4.3 Skin Contact:** Wash skin with soap and water.

**4.4 Eye Contact:** Washout thoroughly with water for at least 10 minutes. Afterwards, immediately seek medical advice.

**4.5 Ingestion:** Do not induce vomiting. Immediately seek medical advice.

**4.6 Medical Advice:** When swallowed or vomited there is a danger that the mineral oil will enter the lungs.

**5. Fire-Fighting Measures**

**5.1 Extinguishing Agents:** Foam, CO<sub>2</sub>, dry powder, water fog and sand.

**5.2 Non-suitable Extinguishing Agents:** Water, never use strong water jets.

**5.3 Combustion Products:** Mainly CO<sub>2</sub>, CO and ash.

**5.4 Special Protective Equipment:** Breathing supply independent of surrounding air, body protection.

**5.5 Further Advice:** Cool endangered containers with water. Combustion residues and fire fighting materials should be disposed of in accordance with local regulations.

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### 6. Accidental Release Measures

- 6.1 Human Related Precautions:** Hygiene: Regular, longer or intensive skin contact should be avoided. Otherwise, protective measures should be taken. Change soaked clothes and shoes immediately. Avoid inhalation of vapour and mist.
- 6.2 Environmental Protection Precautions:** If the product seeps into surface water, inform the responsible authorities. Prevent seepage into drainage system. Stop flowing product through blockage with earth or some other type of suitable material.
- 6.3 Containment and Cleaning Methods:** Soak up leaked product with a suitable absorbent. Dispose of the soiled absorbent in accordance with local regulations.
- 6.4 Additional Information:** Spilled product may make surfaces slippery, especially in combination with water.

### 7. Handling and Storage

#### 7.1 Handling

Tips for safe handling: Do not spill the product. When handling heavy containers use safety gloves and appropriate tools.

Personal Protection: Avoid contact with eyes. If splashing is likely to occur wear a full face visor or chemical goggles as appropriate. Use oil resistant boots and safety gloves.

Tips to Fire and Explosion Protection: Keep away from heat and other sources of ignition. Combustion Class according to DIN EN 2: B.

#### 7.2 Storage

Requirements on containers and storage rooms: Provide sufficient ventilation. Only use containers which are suitable for storing the product. Protect against seepage into the ground. Do not store together with oxidants. Keep away from heat sources.

Storage Class: 10 (flammable liquid) according to VCI-Concept.

Storage Stability: Given when the product is correctly stored between + 5 °C and + 40 °C.

### 8. Exposure Controls/Personal Protection

- 8.1 Tips for Design of Technical Equipment:** Relevant local regulations should be heeded when designing and operating technical equipment.

#### 8.2 Components that should be Monitored at the Workplace

Tip: Oil mist concentrations of 10 mg/m<sup>3</sup> should not be exceeded.

#### 8.3 Personal Protection

General Protection: Regular, longer or intensive skin contact should be avoided. Otherwise, take protective measures. Change soaked clothes and shoes immediately. Do not place soiled or wet rags into pockets. Do not eat, drink, smoke or blow your nose while working at the machine. Do not throw litter into the product.

Respiratory Protection: Where excessive misting occurs, reduce through ventilation.

Hand Protection: If at all possible, we recommend gloves made of a suitable plastic or other such material. Otherwise, use a suitable skin cream.

Eye Protection: In case of spraying danger, use tightly fitting goggles.

Bodily Protection: Wear oil resistant clothing in case of spraying danger. Preventative skin protection is necessary. After work clean and treat the skin.

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### 9. Physical and Chemical Properties

9.1.1	Form	liquid		
9.1.2	Colour	ASTM Colour : 1.0 - 2.0		
9.1.3	Odour	typical		
9.2	Flammability (solid, gaseous):	Not under normal conditions.		
9.3	Ignition temperature:	> 200 °C		DIN 51 794
9.4	Auto-ignition:	None		
9.5	Explosion danger:	see 9.6; only due thermal stress and/or when misting occurs		
9.6	Explosion limits:	Lower limit 0,6 Vol. %		
		Upper limit 6,5 Vol. %		
9.7	Density at T = 15 °C:	0.86 - 0.89 g/cm <sup>3</sup>		DIN 51 757
9.8	Solubility in 20 °C water:	practically insoluble		
9.9	Viscosity (cinematic):	T = 40 °C 14 - 60 mm <sup>2</sup> /s		DIN 51 562
		T = 100 °C mm <sup>2</sup> /s		DIN 51 562
9.10	Flash point:	> 100 °C		ISO 2592
9.11	Pour point:	< -27 °C		ISO 3016
9.12	Further information:	Vapour Pressure < 1 hPa		Literature

### 10. Stability and Reactivity

- 10.1 **Conditions to Avoid:** No decomposition occurs when handled according to proper procedures.
- 10.2 **Materials to Avoid:** Strong Oxidants. This material reacts slowly or not at all with most chemicals.
- 10.3 **Hazardous Decomposition Products:** None if stored and handled according to proper procedures.
- 10.4 **Additional Information: Dangerous Reactions:** None under proper handling conditions. Decomposition begins at higher temperatures.

### 11. Toxicological Information

#### 11.1 Acute Toxicity

##### LD-/LC 50 Values relevant for classification:

Type:	Typical Value:	Species:	Method:	Source:
oral	> 2000 mg/kg	Rats	LD 50	Literature
dermal	> 2000 mg/kg	Rabbits	LD 50	Literature
inhalative	No Data available.			

Specific Symptoms in animal testing: No further data are available.

##### Primary Irritation:

on the skin	Slight irritation possible
on the eyes	Slight irritation possible
Sensitising	Not a sensitiser

#### 11.2 Subacute/Chronic Toxicity

Long term research: No data available.

Experience with people: Repeated or long skin contact can lead to dermatitis. Through this the skin can become sensitive to other materials or chemicals.

Additional toxicological information (especially for the mixture): This material is based on a mineral oil that has shown no carcinogenic effects in animal testing. The other additives are not known to be carcinogenic, based upon present knowledge.

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**12. Ecological Information**

- 12.1 Persistence and Degradability:** Avoid seepage of this material into ground water, open water, the sewage system or earth. This product is hardly water soluble and only partially biodegradable.
- 12.2 Mobility Product:** Product floats on of water.
- 12.3 Environmental Toxicity:** Aquatic Toxicity: Avoid seepage into open water, ground water or sewage systems. Behaviour in sewage-treatment plants: Can be mechanically removed from water.
- 12.4 Additional Information:** According to the German water law "Wasserhaushaltsgesetz - WHG": WGK 2 (water endangering). When this material enters drinking water supplies, then the drinking water supply is endangered.

**13. Disposal Considerations**

- 13.1 Product: Recommendations:** Disposal or combustion should be performed with approved equipment. Give the used material to an approved waste disposal company. Material is free of PCB's and halogens.  
German disposal laws: Abfallschlüssel: EWC-Code 13 01 06      Nachweispflicht: ja
- 13.2 Soiled packaging: Recommendation:** Empty packaging completely. Give to a certified company.

**14. Transport Information**

Not classified as hazardous for transport according to the German laws for land transport (ADR/RID and GGVS/GGVE), inland shipping (ADN/ADNR), overseas shipping (IMDG-Code and GGVSee) and air transport (ICAO-TI and IATA-DGR).

**15. Regulatory Information**

**15.1 Characterization**

Special characterization according to the "Preparation Guidelines EU", Appendix 2: None  
Hazardous components requiring special labelling: None (no R-Sets, no S-Sets)

**15.2 German Regulations**

Gefahrstoffverordnung: (statutory on dangerous substances) Not classified.  
(only when different from the EU category)

Beschäftigungsbeschränkung: (usability limits) No Limits.

Störfallverordnung: (statutory order on emergencies) Not listed in the appendixes.

VbF classification: (statutory order on flammable substances) Not classified.

Technische Anleitung Luft: (technical guidelines for air emissions) Class 3 - self-classified  
(least harmful category)

Wasserhaushaltsgesetz - WHG: (water endangering classification) Class 2 - self-classified  
(water endangering)

Inform yourself about and heed all relevant local regulations.

**16. Other Information**

These information are based upon the knowledge that we possess at the time when this data sheet was written. The information are meant to describe the health and safety aspects of our product, and are not meant to guarantee certain product qualities.

**This is a translation of the current "Sicherheitsdatenblatt according to 91/155/EWG" of the above mentioned product(s). The statements given in this document do not release the product(s) end user from observing strictly the regulations of local authorities.**