

# EU-SAFETY DATA SHEET

## According to 1907-2006-EC

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

<b>01.1 Product Identification</b>	vhf Tec Liquid
<b>01.2 Company Identification</b>	Wascut GmbH Rögen 9 D-23730 Sierksdorf Telefon: + 49 (0) 4563 / 47883 0 Fax: + 49 (0) 4563 / 47883 25

### 02. Composition/Information on ingredients

#### 02.1 Chemical description

Water, amine salts of organic acids, biocide

#### 02.2 Hazardous components

Contains no components in sufficient concentrations that are classified as hazardous according to 1999-45-EC.

No S-sets and no R-sets according to 1999-45-EC

Classification according to TRGS 220: not dangerous mixture      Labeling: none

Satisfies all of the conditions of the TRGS (the German law "Technische Regeln für Gefahrstoffe") 611.

### 03. Hazards identification

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).

Note: Injections through the skin resulting from contact with the product at high pressure constitute a major medical emergency. See "Medical Advice" under "First Aid Measures" (section 4.6).

### 04. First aid measures

#### 04.1 General advice

This product is an emulsion of mineral oil soluble droplets suspended in an aqueous solution by emulsifiers. The aqueous solution consists primarily of rust preventatives and a small amount of biocide (amount usually in accordance with typical cosmetic industry standards).

#### 04.2 Inhalation

If inhalation of fumes or mist cause nose or throat irritation, remove to fresh air. If any symptoms persist obtain medical advice. If breathing stands still immediately use a respiratory apparatus, and obtain medical advice.

#### 04.3 Skin contact

Rinse skin thoroughly under running water, and then apply a skin cream. Excessive contact with the skin can wash the natural oils out of the skin, resulting in skin irritation. Change soaked clothing and shoes immediately.

Note: Injections through the skin resulting from contact with the product at high pressure constitute a major medical emergency. See "Medical Advice" under "First Aid Measures" (section 4.6).

#### 04.4 Eye contact

Wash eyes with copious quantities of water, ensuring eyelids are held open. If any pain, redness or other symptoms develop or persist seek medical advice.

#### 04.5 Ingestion

If contamination of the mouth occurs wash out with copious quantities of water. If large amounts should be ingested do not induce vomiting, to reduce the chance of mineral oil entering the lungs, and immediately obtain medical advice.

#### 04.6 Medical advice

Treatment should in general be symptomatic and directed to relieving any effects. Injections through the skin resulting from contact with the product at high pressure constitute a major medical emergency. Injuries may not appear serious at first but within a few hours become swollen, discolored and extremely painful with extensive subcutaneous necrosis. In these cases, surgical exploration should be undertaken without delay. Thorough and extensive debridement of the wound and underlying tissue is necessary to minimize tissue loss and prevent or limit permanent damage. Note that high pressure may force the product considerable distances along tissue planes.

## 05. Fire-fighting measures

### 05.1 Extinguishing agents

Foam, CO<sub>2</sub>, dry powder, sand and water fog.

### 05.2 Non-suitable extinguishing agents

Water, never use water jets.

### 05.3 Dangers through the product and its combustion products

See section 2.2 for "Hazardous Components". Combustion products are mainly CO<sub>2</sub>, CO and ash.

### 05.4 Special protective equipment for fire fighters

Breathing supply independent of surrounding air, body protection.

### 05.5 Further advice

The emulsion itself usually consists of 90-95% water, and so combustion does not usually occur. Cool endangered containers with water. Combustion residues and quenching materials should be disposed of in accordance with local regulations.

## 06. Accidental release measures

### 06.1 Human related precautions

Avoid contact with eyes by use of a full face visor or chemical goggles. Regular, longer or intensive skin contact should be avoided. Rinse skin thoroughly under running water, and then apply a skin cream. Avoid inhalation of vapors and mist.

### 06.2 Environmental protection precautions

If the product seeps into the surface water, inform the responsible authorities. Keep away from drains, surface- and ground-water and soil. Stop flowing product through blockage with earth or some other suitable material.

### 06.3 Containment and cleaning methods

Soak up leaked product with a suitable absorbent. Dispose of the soiled absorbent in accordance with local regulations.

### 06.4 Additional information

Spilled product may make surfaces slippery, especially in combination with water or smooth metals.

## 07. Handling and storage

### 07.1 Handling

Tips for safe handling: Do not spill the product. When handling heavy containers use safety boots 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. Change soaked clothing and shoes immediately.

Fire Protection: Keep product away from heat and other sources of ignition. Quickly dispose of rags, absorbents and clothing soaked with product in accordance with local regulations.

### 07.2 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 or strong acids. Keep away from heat sources. Product stability is only guaranteed when kept between +5°C and +40°C.

## 08. Exposure controls/Personal protection

### 08.1 Tips for design of technical equipment

Relevant local regulations should be heeded when designing and operating technical equipment.

### 08.2 Components that should be monitored on the workplace

Oil mist concentrations should not exceed the limit set through local regulations. If no such regulations exist, a maximum value of 5 mg/m<sup>3</sup> (the German MAK value) is suggested.

The pH should be monitored. If it falls below 8.0 the solution should be disposed of, in accordance with local regulations, the machine cleaned (mechanically and with a chemical system cleaner) and then filled with fresh emulsion at the recommended concentration.

The concentration of the solution should be monitored daily, if at all possible. This concentration should not fall below the concentration recommended for the product (please refer to product data sheet or our technical service). For information on further monitoring please contact our technical service.

### 08.3 Personal protection

General Protection: Do not place soiled or wet rags into pockets. Do not drink, eat, smoke or blow your nose while working at the machine. Do not throw litter (food remains, cigarette butts, cups, etc.) into the solution. If litter is thrown into the solution it is conducive to microbial growth, which is a health risk, and reduces the life of the emulsion.

Skin Protection: Wear a water repelling skin cream, while working, in sufficient quantities to provide effective skin protection. Wash hands thoroughly at the start of work breaks and at the end of work, but avoid using solid containing (e.g. sand) soaps. Do not use soiled rags, especially if they contain metal chips. Metal chips, sand and other solids cause minute cuts in the skin which are often the cause of severe skin problems. Excessive contact with the skin can wash the natural oils out of the skin, resulting in skin irritation. After work apply a skin cream to restore the natural oils which have been washed out of the skin. Change soaked clothing and shoes immediately.

Respiratory Protection: Where excessive misting occurs, reduce the concentration through ventilation. If the solution "burns" at the metal cutting edge (not to be confused with "misting"), a lack of cooling might be the problem. The combustion products that result are a health risk (at least carbon monoxide is produced). In this case the problem can be alleviated through a redirection of the solution nozzle, in order to better flood the cutting edge, or an increase in the coolant pressure.

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

## 09. Physical and chemical properties

Property	Units	Typical	Determination of
<b>Concentrate:</b>			
Form		homogeneous liquid	
Color		yellow	
Odor		typical	
Density at 20°	g/cm <sup>3</sup>	1.0 to 1.1	DIN 51 757
Viscosity at 20°	mm <sup>2</sup> /s	4 to 10	DIN 51 562
Flash point (of the dewatered concentrate)	°C	>100	ISO 2592
Flammability		not under normal conditions	
Autoflammability		none	
Explosion Limits - Lower Limit	% volume in air	0,6	
Explosion Limits - Upper Limit	% volume in air	6,5	
Solubility in water at 20°		soluble in all proportions	
Solubility in oil at 20°		insoluble in all proportions	
<b>Emulsion in water:</b>			
pH value of a 10% emulsion		8.8 to 9.4	DIN 51 369

## 10. Stability and reactivity

### 10.1 Conditions to avoid

Do not store at temperatures below +5°C or above +40°C. The emulsion concentrate can separate into two or more phases if this temperature range is not maintained. When this happens the emulsion concentrate should be brought to the correct temperature and then stirred. If the concentrate is still cloudy it is no longer usable and should be disposed of in accordance with local regulations.

### 10.2 Materials to avoid

Do not store together with oxidants or strong acids. Keep away from heat sources. This product reacts with most other chemicals slowly or not at all.

### 10.3 Hazardous decomposition products

Thermal decomposition can produce a variety of compounds, the precise nature of which will depend on the decomposition conditions. Incomplete thermal decomposition (combustion) will generate smoke, carbon dioxide and hazardous gases, which will include carbon monoxide.

Under proper handling conditions no hazardous decomposition products are produced.

### 10.4 Additional information

Dangerous Reactions: None, under proper handling conditions. Decomposition begins at higher temperatures.

## 11. Toxicological information

### 11.1 Eyes

Unlikely to cause more than transient stinging or redness if accidental eye contact occurs.

### 11.2 Skin

Not a skin sensitizer. The solution has a slightly alkaline pH (typically between 8.5 and 9.3) which can affect the natural acidity of the skin.

### 11.3 Ingestion

Unlikely to cause harm if swallowed in small doses, though larger quantities may cause nausea, diarrhoea and other symptoms.

### 11.4 Inhalation

At normal ambient temperatures this product is unlikely to present an inhalation hazard because of its low volatility. May cause irritation to eyes, nose and throat due to exposure to vapor, mists or fumes. May be harmful by inhalation if exposure to vapor, mists or fumes resulting from thermal decomposition products occurs (see section 10.3).

### 11.5 Additional information

All of the raw materials used to make this product are believed to be non-carcinogenic at the concentrations used, based on the available research material at this time. In developing this product many chemical types and concentrations were chosen from raw materials used in the cosmetic industry, in an attempt to make this product more suitable for human use. Those chemicals which do not fulfil this criterion were carefully evaluated and chosen with respect to human compatibility. Practical experience with emulsions show that they are not very toxic if the product does not contain diethanolamine, diethanolamine-fatty acid reaction products or nitrite (these two chemicals together present a risk of cancer), which this product do not contain, and proper solution control and personal protection (see section 8) are practiced. Monoethanolamine is also not contained in this product (Monoethanolamine penetrates the skin, damages organs and is teratogenic according to the latest research findings).

## 12. Ecological information

### 12.1 Persistence and degradability

Avoid seepage of this product into ground water, open water, the sewage system or earth. This product is easily water soluble and can be considered biodegradable in a suitable microbiological environment.

### 12.2 Mobility

Spillage is likely to penetrate the soil. This product spreads quickly and finely through water.

### 12.3 Environmental toxicity

Aquatic Toxicity: Avoid seepage into open water, ground water or sewage systems. This product spreads quickly and finely through water, endangering aquatic life (e.g. the emulsified plant oil droplets can coat the gills of fish, suffocating them) and drinking supplies.

Behavior in Sewage-Treatment Plants: Cannot be removed from the sewage water through mechanical separation. A complete biodegrading in the sewage-treatment plant can usually be expected to occur.

### 12.4 Additional information

When this product enters drinking water supplies, then the drinking water supply is endangered.

According to the German water law "Wasserhaushaltsgesetz - WHG": WGK 1 (slightly water endangering).

## 13. Disposal considerations

### 13.1 Product

This product does not contain PCB's or chlorinated paraffins. Keep fresh or used emulsion out of drains, sewage pipes, soil, ponds, ditches or similar places. Recommendations: Processing or disposal should be performed in accordance with local regulations. Disposal should be performed by a certified waste disposal company, or in officially approved equipment.

Waste code number (waste disposal code according to German waste regulation): 120109

Burden of proof: Ja

### 13.2 Uncleaned packaging

Recommendations: Remove as much emulsion concentrate as possible. Good results can be achieved when one tilts the barrels at about 45°, with the drum opening open and at the bottom, over an adequately large container, overnight.

Give the used packaging 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 labeling: None

### 15.2 German regulations

VbF classification (statutory order on flammable substances): None (flash point above 100°C)

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

Wasserhaushaltsgesetz - WHG (water endangering classification): Class 1 - (slightly water endangering)

MAK values (workplace maximum concentrations) do not exist for this product.

All components of this product are listed in the Chemikaliengesetz (German Chemicals Regulation).

Gefahrstoffverordnung (statutory order on dangerous substances): None

No Risk Phrases or Safety Phrases.

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.