

MATERIAL SAFETY DATA SHEET

SECTION I : PRODUCT AND COMPANY IDENTIFICATION

Product Name : **WILFRO SS 1620**

Product use : Heavy duty water miscible semi-synthetic machining fluid.

Company Identification : **WILFRED FLUID SPECIALTY**
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SECTION II : COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Components: Fatty acid soaps: Eye Irritant- CAS Number: 8046-74-0, < 8-10%
Highly refined mineral oil: Exposure Limited, see Section 8- CAS Number: 64742-52-5, <60%
Surfactant: Irritant-CAS Number:9002-92-0, <6%
Petroleum Sulphonate Sodium Salt: Irritant- CAS Number: 68608-26-4, <10%
Amine Borate: Irritant- CAS Number: 15277-97-1, <15%
Biocide: Irritant / Eye Irritant--CAS Number: 263433-5, < 1%
Chloroparaffins Irritant/Skin, Eye Irritant-CAS Number:85535-85-9,< 15%

Note: The above components may not necessarily constitute the complete composition of the product.

SECTION III: HAZARD IDENTIFICATION

H

Health and Safety

The product is severely irritating to the eyes with a potential to cause damage if treatment is not prompt. In contact with the skin, the product may cause irritation which could become more intense if not promptly removed or if contact is frequent or prolonged. For further information, refer to Section 1.1.

Environmental

The product contains mineral oil which will not readily biodegrade in anaerobic conditions and therefore can be environmentally persistent.

For further information, refer to Section Special Hazards
After Use None envisaged

SECTION IV : FIRST AID MEASURES

Eye Contact

Immediately wash eye thoroughly with plenty of clean water for at least 15 minutes, ensuring eyelids are held open. It is advisable to obtain medical advice before removing contact lenses. Obtain medical attention without delay.

Skin Contact

Although emergency first aid treatment is not usually required, the product should be washed thoroughly from the skin with soap and water without delay. Remove contaminated clothing. Wash/laundry contaminated clothing before re-use. If irritation persists, obtain medical advice.

Inhalation

For effects produced by over-exposure, move to fresh air. If effects persist, obtain medical advice.

Ingestion

Do not induce vomiting. Wash out mouth with water and obtain medical attention. Milk or water to drink may be beneficial (do not give anything to drink to an unconscious person). Treat symptomatically. If the product is aspirated into the lungs (e.g. during vomiting), send to hospital immediately. Show a copy of this data sheet to the doctor.

Notes for Doctors

Treat symptomatically, advisable not to induce vomiting due to the risk of aspiration and it is not usually necessary unless a large amount has been ingested or it has been contaminated with another product. Gastric lavage under supervised medical conditions can be carried out if necessary.

SECTION V : FIRST AID MEASURES

F

Flammability

Low fire risk due to high flash point and low volatility. High energy sources (such as open flames) may induce combustion.

Flash Point: >100°C (Closed Cup, based on components)

Autoignition Temperature: >150°C (based on components)
Flammability Limits: Not Established.

Extinguishing Media

Small Fires: Foam, dry powder, carbon dioxide, sand or earth.

Large Fires: Foam or water fog, **DONOT USE WATER JETS.**

Products of Combustion

Combustion can produce a variety of compounds including: oxides of carbon, oxides of sulphur, water vapour, unburnt

hydrocarbons, partially oxidized organic compounds and other unidentified organic and inorganic compounds. Some of these compounds may be toxic.

Special Fire Hazards

Large surface areas exposed to air/oxygen (e.g. oil, soaked drags, paper or absorbed spillages) may be easily ignited and these should be cleared up once.

Special Firefighting Procedures

Firefighters should wear self-contained breathing apparatus. Do not spray water directly into storage containers due to the danger of overpressure.

Water may be used to cool nearby containers/surfaces.

SECTION VI : ACCIDENTAL RELEASE MEASURES

Contains spillage and prevent entry to drains or water courses. Spillages can be slippery so affected areas should be thoroughly cleaned afterwards.

Safety Precautions

Wear suitable protective clothing, particularly eye protection. Refer to Section 8 for further details.

Small Spills

Soak in absorbent granules, sand or earth and collect solids into a suitable, marked container for proper disposal. Thoroughly clean spillage area as spillages can be slippery.

Large Spills

Bundle the area using absorbent granules, booms, sand or earth. Temporarily seal exposed drainage outlets. Reclaim liquid directly or soak in an absorbent medium, and transfer to a suitable, marked container for proper disposal.

Disposal of Spillage

Disposal must be in accordance with local regulations and (in the UK) the Environmental Protection Act 1990. Refer to Section 13 for further details.

SECTION VII : HANDLING AND STORAGE

Handling

Avoid contact with eyes, wear suitable eye protection. Avoid skin contact with the product. The use of appropriate barrier and after-work creams may be beneficial.

Storage

Store in dry conditions protected from frost and elevated temperature. Store in original containers or in other mild steel or high density polyethylene containers which are closable and clearly labelled. Certain requirements of the Control of Pollution (Oil Storage) (England) Regulations 2001 may apply in England. Additional Guidance
The product is intended for use in formulating water, extendable metal working fluids and other water, miscible lubricants.
. The supplier can provide additional formulators guidance.

SECTION VIII: EXPOSURE CONTROLS/PERSONAL PROTECTION

An occupational exposure limit for the product has not been established. The ACGIH exposure limit for mineral oil mist is 5mg/m³ (8hrTWA).

Notes

Oil mist determination. Primary Method: gravimetric collection on a 5µ lowash filter. Fluorometric and IR techniques are also available for mineral oil mists. Secondary Method: Detector tubes are available for mineral oil mist.

SECTION IX : PHYSICAL AND CHEMICAL PROPERTIES

The following are indicative values only

Appearance and State: Amber

Odour: Mild characteristic

Flash Point: >100°C (Closed Cup, based on components)

Autoignition Temperature: >150°C (based on components)

Flammability Limits (% in air): Not flammable, water based
Relative Density (@20C): 0.9730

Boiling Point/Range (C): >100 (based on components)
Pour Point/Melting Point (C): <0

Vapour Pressure: Very low (based on components; specific test data not determined)

Vapour Density (air=1): >1

All hydrocarbon components are significantly: >7

cSt. PH: 9.6

Solubility In Water: Emulsifies

SECTION X : STABILITY AND REACTIVITY

This product is stable and unlikely to react in a hazardous manner under normal conditions of use.

Conditions to Avoid

Extremes of temperature (preferably, store between 5 and 30 °C). Protect from frost. Materials to Avoid Strong oxidising agents (e.g. chlorates, peroxides), strong acids. The product may soften some rubbers and other incompatible elastomeric sealing materials. Do not store in containers made from copper, aluminium or zinc.

Decomposition Products

Thermal decomposition can produce a variety of compounds, the nature of which will largely depend on the conditions bringing about decomposition. Incomplete combustion or thermal decomposition may be expected to generate such materials as: particulate matter and unburnt hydrocarbons; oxides of carbon; oxides of sulphur; water vapour; partially oxidised organic compounds; and other unidentified organic and inorganic compounds.

SECTION XI : TOXICOLOGICAL INFORMATION

Toxicological data is based on information on components and knowledge and experience of this and similar products

Acute Toxicity

Ingestion Oral LD50: > 2000 (mg/Kg rats)

The product is expected to have a low order of acute oral toxicity, ingestion is not regarded as a significant health hazard likely to arise in normal use. Swallowing significant quantities may cause discomfort, nausea, irritation of the digestive tract, and diarrhoea. Aspiration into the lungs caused by vomiting or regurgitation following ingestion can be hazardous with possible resultant chemically induced pneumonia.

Dermal- Dermal LD50: > 2000 (mg/Kg rabbits)

Dermal toxicity is not regarded as a health hazard likely to arise in normal use, prolonged skin contact is unlikely to result in the absorption of harmful amounts.

Inhalation- Inhalation LC50: Not Established/No data

Due to its low volatility, the product is unlikely to give rise to vapours which would present a significant inhalation hazard at ambient temperatures. High temperatures or atomising systems may lead to generation of vapours, mists or fumes which could cause irritation to eyes and respiratory tract, and pulmonary irritation.

Corrosivity/Irritation Eyes

Eye contact can cause strong irritation and stinging with a potential to cause damage if treatment is not prompt.

Skin

The undiluted product in brief or occasional contact with intact skin can cause slight irritation which may become more intense if not promptly removed or if the skin is abraded or cut. Respiratory High temperature or atomising systems may give rise to vapours, mists or fumes which could irritate eyes and respiratory tract.

Sensitisation

Not a sensitizer.

[Note: the susceptibility of individuals with respect to allergic responses to different chemicals can vary considerably]

Chronic Toxicity

Repeated exposure to high concentrations of oil mists may cause a chronic inflammatory reaction of the lungs and give rise to a benign form of pulmonary fibrosis. This risk can be avoided by ensuring proper control to minimise exposure to mists and fumes within the suggested control limits (see Section 8).

Carcinogenicity

No carcinogenic effects are anticipated with this type of product during normal use. All mineral oils incorporated in the product have been highly refined.

Mutagenicity

There are no reports of mutagenic effects attributable to the use of this type of product.

Reproductive Toxicity

There are no reports of reproductive effects attributable to the use of this type of product. Additional Notes

Contamination and degradation of emulsions during use can affect the above properties, and in some cases may introduce additional hazards.

SECTION XII : ECOLOGICAL INFORMATION

Ecological data is based on information on components and knowledge and experience of this or similar products

Mobility

The product will disperse as an emulsion in water. If released on land, small quantities will be absorbed in the upper soil layers where biodegradation may take place. Larger quantities may penetrate into anaerobic soil layers where mineral oil and some other organic compounds may persist. Many of the components have a high soil absorption coefficient which should help to prevent significant contamination of groundwater. If it reaches the water table, the mineral oil could disperse as an emulsion if the emulsifiers in the product have also penetrated the soil layers.

Degradability and Persistence

The individual components range from readily to slowly biodegradable. The product contains mineral oil which has limited ready biodegradability when tested by methods CECL, 33, A, 93 and OECD 301 B. Mineral oil will biodegrade slowly in aerobic water and sediments, and is considered to be ultimately biodegradable, but it can be persistent in anaerobic conditions. Mineral oil loadings can impair the functioning of sewage treatment plants. Bio accumulative Potential
The product will disperse as an emulsion in water, and some components will solubilise in water. Mineral oil has a potential to bioaccumulate, its physical properties and slow rate of biodegradation suggest that mineral oil could interfere with the normal functioning of ecological cycles, and a contaminated area could be slow to recover.

Aquatic Toxicity

Chloroparaffins are highly toxic to aquatic invertebrates following acute (48-hr EC₅₀ = 0.043 to 11 mg/L) and chronic (NOEC = 0.005 to 2 mg/L) exposures. In fish, high toxicity is associated with chronic exposures, but not for acute exposures (96-hr LC₅₀ = 300 to 10,000 mg/L and NOEC = 0.0096 to 0.05 mg/L). For aquatic plants, there is high toxicity associated with both acute and chronic exposures to SCCPs (96-hr EC₅₀ range from 0.043 to 0.39 mg/L and NOEC ranges from 0.012 to 0.39 mg/L).

Additional Notes

The product consists of components of low volatility which are not expected to be released to air in any significant quantities.

SECTION XIII : DISPOSAL CONSIDERATIONS

Do not contaminate ponds, water courses, soil or drains. Ensure all means of disposal comply with national and regional regulations. These include: in the EC: the Waste Framework Directive (75/442/EEC)

Hazardous Waste

Directive (91/689/EEC) and amendments/additions, Waste Oil Directives (75/439/EEC and 87/101/EEC); and in the UK: the Environmental Protection Act 1990, Environment Act 1995 and Hazardous Waste Regulations 2005 and amendments. Note: it is the end user's responsibility to determine the regulatory status of waste at the time of disposal.

Undiluted Product

Do not dispose of untreated waste down the drains. The product may be incinerated in suitable equipment and under controlled conditions. Alternatively, the product can be disposed of via an authorised person/licensed waste disposal contractor.

Diluted Product

The product is on dilution for use, has to be disposed. Any disposal practice must be in compliance with local, state and federal laws and regulations. Empty containers must be handled with care due to product residue.

SECTION XIV: TRANSPORTATION INFORMATION

ADR Not Regulated
Sea Transport Not Regulated
Marine Pollutant: No
Air Transport Not Regulated
UN Classification
Not Regulated
UN Number
Not Applicable
UN Pack Group Not Applicable

SECTION XV : REGULATORY INFORMATION

Classification Severe Eye

Irritant ANSI Signal Word

WARNING

Label Information Risk of serious damage to eyes.

Avoid contact with eyes. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear eye/face protection. This material and its container must be disposed of as hazardous waste.

Notes: The above classification applies to the undiluted product as supplied. Formulated products containing this material will need to be reassessed in order to establish any applicable hazard labeling requirements.

SECTION XVI : OTHER INFORMATION

Disclaimer : No specific notes on this product. Data is the most current known to M/s Wilfred Fluid Specialty at the time of preparation and is believed to be accurate. No warranty as to its accuracy or completeness is expressed or implied.

The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.