

Safety Data Sheet

Prepared in accordance with Commission Regulation (EU) No.453/2010

Hydraulic oil HYDROL HM 68

Printed: 10.03.2021
version 1.0

Internal Product Code:02628

page 1 of 9

SECTION 1: Chemical product identification and information about manufacturer

1.1 Product identification

Hydraulic oil HYDROL HM 68

Synonyms – absent.

1.2 Recommendations and restrictions on the use of chemical products

Hydraulic oil for hydraulic systems of equipment with pumps of all types operating at a pressure of not more than 25 MPa and an oil temperature of not more than 90 ° C

1.3 Information about supplier of Safety Data Sheet for the mixture

Company: LLC "JV YUKOIL"

Bazova St, 3a

Locality: Zaporozhye, Ukraine

Phone number: +38 061 222 80 32

Telefax: +38 061 222 80 32

The contact person: FEA Department

E-mail: support@yukoil.com

Internet: <https://yuko.ua>

Reference Department: FEA Department

1.4 Emergency telephone

Emergency phone number: +38 061 270 50 81

SECTION 2: Hazard Identification

2.1 Classification of substances and mixtures

This substance is not classified as hazardous according to Directive (EU) No 1272/2008 as amended.

2.2 Label elements

(EC) No 1272/2008, 67/548/EEC a6o 1999/45/EC

The product is not subject to mandatory labelling with EU directives.

2.3 Other risk factors

Allergic reactions may occur.

Product vapors may irritate the respiratory tract, skin and eyes.

Harmful to health if swallowed. Do not allow product that has leaked to soak into the ground.

Avoid uncontrolled release of product into the environment.

SECTION 3: Composition, information on ingredients

3.2 Mixtures

(EU) No 1272/2008

Composition of hazardous substances

No European Commission	CAS-number	Percentage (by weight)	Name	Classification
278-012-2	74869-22-0	≥98%	Mineral (base) oil	In clause 8.1
274-263-7	70024-69-0	0,1% to 0,3%	Benzenesulfonic acid, mono-C16-24-alkyl derivs., Calcium salts	Eye Irrit. 2; H319
298-577-9	93819-94-4	0,1% to 0,6%	Zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate)	Skin Irrit. 2; H315 Eye Dam. 1; H318 Aquatic Chronic 2; H411

67/548/EEC or 1999/45/EC

Unsafe composition of substances

No European commission	CAS-number	Percentage (by weight)	Name	Classification 67/548/EEC
278-012-2	74869-22-0	≥98%	Mineral (base) oil	In clause 8.1
274-263-7	70024-69-0	0,1% to 0,3%	Benzenesulfonic acid, mono-C16-24-alkyl derivs., Calcium salts	R53

Safety Data Sheet

Prepared in accordance with Commission Regulation (EU) No.453/2010

Hydraulic oil HYDROL HM 68

Printed: 10.03.2021
version 1.0

Internal Product Code:02628

page 2 of 9

298-577-9	93819-94-4	0,1% to 0,6%	Zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate)	Xi; R41, R38 N; R51/53
-----------	------------	--------------	--	---------------------------

Contains ingredients that are not subject to declaration according to current safety and regulatory criteria. For the explanatory text of R-phrases, see section 16.

Further instructions

DMSO – Extract <3%, IP 346.

PCB concentration <1 mg/kg.

Classification system: the classification is in accordance with the current EU lists, however, supplemented by data from special literature and company data.

SECTION 4: First aid measures

4.1 Description of first aid measures

When inhaling

In case of loss of consciousness, place the victim in a comfortable position and seek medical care. If symptoms persist, consult a doctor.

If on skin

Wash affected area with plenty of water and neutral soap. Seek medical care if skin irritation occurs. Contaminated clothing should be washed before reuse.

In contact with eyes

In case of contact with eyes, rinse immediately with plenty of running water for at least 5 minutes. Then consult a doctor.

When ingested

Do not induce vomiting. Seek medical care immediately.

4.2 Most important symptoms and effects, both acute and delayed

See section 11

4.3 Indication of any immediate medical attention and special treatment needed

Information for the doctor: symptomatic treatment

SECTION 5: Measures and means of ensuring fire and explosion safety

5.1 Firefighting equipment

To extinguish fires use water spray, foam, powder, extinguishing agents or carbon dioxide (CO₂).

Firefighting equipment which must not be used for safety reasons

Powerful flow of water

5.2 Hazards associated with the substance or mixture

In case of fire, carbon monoxide, carbon dioxide (CO₂), sulphur oxides, phosphorus oxides, nitrogen oxides may occur.

5.3 Firefighting instructions

Special protective equipment for firefighting

In case of fire, self-contained breathing apparatus is recommended.

Additional instructions

Standard procedures for the elimination of chemical fires

Use fire-fighting measures that comply with local laws and protocols for emergency localization and elimination.

SECTION 6: Measures for the prevention and elimination of emergency situations

6.1 Personal safety measures, protective equipment and emergency procedures

Use a set of personal protective equipment.

Avoid contact with skin, eyes and clothing.

Personal insecurity - slipping on a spilled product.

Localize sources of ignition.

When vapors, dust and aerosols are released, use respiratory equipment.

6.2 Environmental measures

Prevent entry into sewage and water bodies. If released into the atmosphere or if the product enters waterways, soil or

Safety Data Sheet

Prepared in accordance with Commission Regulation (EU) No.453/2010

Hydraulic oil HYDROL HM 68

Printed: 10.03.2021
version 1.0

Internal Product Code:02628

page 3 of 9

sewers, notify the local authorities. Prevent surface spread (e.g. localize or protect against spillage).

6.3 Methods and materials for localization and purification

Collect loose liquid for recycling and / or disposal. Residues of the product can be collected with an inert material (sand, diatomaceous earth, universal sorbing agents, sawdust, cloth). Deal with contaminated material in accordance with section 13.

6.4 References to other sections

See sections 7, 8 and 13 for more information.

SECTION 7: Rules of conduct and storage

7.1 Protective measures to ensure safety when working with the substance

Guidelines for safe behavior

Provide ventilation at the workplace (there must be exhaust ventilation in the room).
Avoid contact with skin, eyes and clothing, inhalation of product vapors.

Hygiene measures

Be sure to wash your hands before breaks and after work.
Use a protective skin cream.
If the product gets on your clothes, wash it off immediately and clean it thoroughly before reuse.

Instructions on fire and explosion protection

Take precautions against static electricity build-up (grounding during pumping / overflowing operations). Avoid the formation of oil mist.
Keep away from open sources of ignition, refrain from smoking when handling the product.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for warehouses and containers

Keep product packaging dry and sealed to prevent contamination, moisture and direct sunlight.

Storage conditions

Store separately from food, drink and animal feed. Do not store together with strong oxidants.

Further information about warehouse storage

Recommended storage temperature: 20 ± 10 ° C.
Protect from heat, UV radiation, direct sunlight.

SECTION 8: Measures for the influence control and personnel protection

8.1 Control parameters

The product does not contain significant quantities of substances with concentration limit values that need to be monitored at the workplace. During the manufacture, they are guided by applicable laws and regulations.

Other substances with TLV

Contains mineral oil. Oil mist may form.
Recommended value limits for oil mist:
TWA: 5 mg/m^3
STEL: 10 mg/m^3

8.2 Control of harmful influences

Provide adequate ventilation and local exhaust ventilation in critical areas.

Personal protective measures

After handling products before eating, smoking, using the toilet and at the end of work wash hands and face. Take off dirty clothes. Contaminated clothing should be washed before reuse. Do not eat, drink or smoke in the workplace.

Eye protection

Tightly sealed safety goggles. DIN - ZEN - standards: EN 166

Respiratory protection

Not required
If exhaust ventilation is not possible or insufficient, breathing apparatus should be worn.

Hand protection

Oil resistant protective gloves

Safety Data Sheet

Prepared in accordance with Commission Regulation (EU) No.453/2010

Hydraulic oil HYDROL HM 68

Printed: 10.03.2021
version 1.0

Internal Product Code:02628

page 4 of 9

Tested protective gloves must be worn: DIN - ZEN - standards: EN 374.
Suitable material: NBR (nitrile rubber). The time of loss of mechanical integrity and the swelling characteristics of the material must be taken into account. Preventive skin protection with a protective cream.

Body protection

Wear suitable protective clothing when working.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

State of aggregation	liquid (under normal conditions)
Colour	from light yellow to dark brown
Scent	specific, not annoying
Flash point	200 °C
Water solubility	insoluble
Kinematic viscosity at 100 °C	68 sSt
Ignition temperature	more than 240 °C
Density at 20 °C	0,880 g/cm ³
Pour point	minus 15 °C

The above data are typical and not a specification.

SECTION 10: Stability and chemical activity

10.1 Reactivity

Read carefully all the information provided in sections 10.2 - 10.6.

10.2 Stability

The material is generally stable at room temperature and pressure. See section 7 for details.

10.3 Possibility of hazardous reactions

Absent

10.4 Conditions to avoid

See section 7, no further action is required. To avoid thermal decomposition - do not overheat.

10.5 Incompatible materials

Oxidants, compressed oxygen

10.6 Hazardous decomposition materials

The product is stable under normal conditions of storage and use.

Thermal decomposition

Smoke, carbon monoxide (CO), carbon dioxide (CO₂), aldehydes and other products of incomplete combustion. Sulfur oxides, phosphorus oxides, hydrogen sulfide, alkyl mercaptans and sulfides can be released.

SECTION 11: Toxicological information

11.1 Information about toxicological effects

Acute toxicity

Oral

The half-lethal dose of LD₅₀ for white rats is more than 5000 mg / kg. Results are based on data from components or similar products.

Dermal

Half-lethal dose LD₅₀ for rabbits is more than 2000 mg / kg. Results are based on data from components or similar products.

Inhalation

There is no evidence that the product or its components may present a toxicological hazard by inhalation.

Skin damage/irritation

May cause mild skin irritation. Results are based on data from components or similar products. Prolonged or repeated skin contact with clothing soaked in the material may cause dermatitis. Symptoms may include redness, rash, swelling, dryness, and cracking of the skin.

Serious eye injury / damage

No eye irritation expected. Results are based on data from components or similar products.

Safety Data Sheet

Prepared in accordance with Commission Regulation (EU) No.453/2010

Hydraulic oil HYDROL HM 68

Printed: 10.03.2021
version 1.0

Internal Product Code:02628

page 5 of 9

Respiratory tract irritation

If the material smokes or emits vapors when heated, their exposure may cause some irritation of the mucous membranes and upper respiratory tract. Results are based on data from components or similar products.

Respiratory tract and skin sensitization

Skin

There is no evidence that the product or its components cause skin sensitization.

Breathing

There is no data to indicate that the product or its components may be respiratory sensitizers.

Germ cell mutagenesis

There are no data on mutagenesis or genotoxicity of the product or its components present in concentrations above 0.1%.

Carcinogenicity

This product is believed to contain highly refined petroleum products and is not a carcinogen according to IARC. All oils contained in this product contain less than 3% extracted substances in accordance with the IP 346 test.

Reproductive toxicity

There is no data that the product or its components affect reproductive function at concentrations of more than 0.1%.

Repeated Exposure to Specific Organ Toxicity (STOT)

There are no data on the hazards of chronic exposure to the product or its components present in concentrations exceeding 1%.

Other information

No other health threats known.

Mineral (base) oil CAS # 74869-22-0

Acute toxicity

Orally

The semi-lethal dose of LD₅₀ for white rats is more than 5000 mg / kg. The results are based on data for components or similar products

Dermal

The semi-lethal dose of LD₅₀ for rabbits is more than 2000 mg / kg. The results are based on data for components or similar products

Inhalation

There is no evidence that the product or its components may present a toxicological hazard if inhaled

Irritation

Skin

May cause mild skin irritation. The results are based on data for components or similar products. Prolonged or repeated contact of clothing impregnated with the material may cause dermatitis. Symptoms may include redness, rash, swelling, dryness, and cracking of the skin.

Eyes

No eye irritation is expected. The results are based on data for components or similar products

Respiratory tract

If the material smokes or emits vapors when heated, their effects may cause some irritation of the mucous membranes and upper respiratory tract. The results are based on data for components or similar products

Sensitization

Skin

There is no evidence that the product or its components cause skin sensitization

Respiratory tract

There is no evidence that the product or its components may be airway sensitizers.

Eyes

There is no evidence that the product or its components cause eye sensitization

Chronic toxicity

There are no data on the risk of chronic exposure to the product or its components present in concentrations above 1%

Safety Data Sheet

Prepared in accordance with Commission Regulation (EU) No.453/2010

Hydraulic oil HYDROL HM 68

Printed: 10.03.2021
version 1.0

Internal Product Code:02628

page 6 of 9

Carcinogenicity

It is believed that this product contains highly purified petroleum products and is not a carcinogen, according to IARC. All oils contained in this product contain less than 3% of extractable substances according to test IP 346

Mutagenicity

There are no data on the mutagenicity or genotoxicity of the product or its components

Reproductive toxicity

There is no evidence that the product or its components affect reproductive function

Other information

Other health threats are unknown

Benzenesulfonic acid, mono-C16-24-alkyl derivatives., Calcium salts CAS # 70024-69-0

Acute toxicity

Orally

The half-life dose of LD₅₀ is more than 16,000 mg / kg for rats

Dermal

The semi-lethal dose of LD₅₀ for rats is more than 4000 mg / kg

Inhalation

The semi-lethal concentration of LC₅₀ is more than 1.9 mg / l when exposed to the whole body for 4 hours

Irritation

Skin

May cause mild skin irritation. The results are based on data for components or similar products. Prolonged or repeated contact of clothing impregnated with the material may cause dermatitis. Symptoms may include redness, rash, swelling, dryness and cracking of the skin.

Eyes

No eye irritation is expected. The results are based on data for components or similar products

Respiratory tract

If the material smokes or emits vapors when heated, their effects may cause some irritation of the mucous membranes and upper respiratory tract. The results are based on data for components or similar products

Sensitization

Skin

There is no evidence that the product or its components cause skin sensitization

Respiratory tract

There is no evidence that the product or its components may be airway sensitizers.

Eyes

There is no evidence that the product or its components cause eye sensitization

Chronic toxicity

NOEL is defined as 1000 mg / kg / day for rats

Carcinogenicity

No data available

Mutagenicity

No data available

Reproductive toxicity

NOAEL 160 mg / kg / day. The results are based on data for components or similar products

Other information

Other health threats are unknown

Zinc bis [O- (6-methylheptyl)] bis [O- (sec-butyl)] bis (dithiophosphate) CAS # 93819-94-4

Acute toxicity

Orally

Semi-lethal dose LD50 2600 mg / kg for male / female rats

Safety Data Sheet

Prepared in accordance with Commission Regulation (EU) No.453/2010

Hydraulic oil HYDROL HM 68

Printed: 10.03.2021
version 1.0

Internal Product Code:02628

page 7 of 9

Dermal

The semi-lethal dose of LD50 for rats is more than 2000 mg / kg

Inhalation

The semi-lethal concentration of LC50 is more than 2 mg / l when exposed to rats for 1 hour

Irritation

Skin

Causes skin irritation. Prolonged or repeated contact of clothing impregnated with the material may cause dermatitis. Symptoms may include redness, rash, swelling, dryness and cracking of the skin.

Eyes

Eye irritation is possible. The results are based on data for components or similar products

Respiratory tract

If the material smokes or emits vapors when heated, their effects may cause some irritation of the mucous membranes and upper respiratory tract. The results are based on data for components or similar products

Sensitization

Skin

There is no evidence that the product or its components cause skin sensitization

Respiratory tract

There is no evidence that the product or its components may be airway sensitizers.

Eyes

There is no evidence that the product or its components cause eye sensitization

Chronic toxicity

No data available

SECTION 12: Environmental Safety

12.1 Toxicity

Freashwater fish

The acute semi-lethal concentration of LC₅₀ exceeds 1000 mg / L. Results are based on data from components or similar products.

Freshwater spineless

The acute semi-lethal EC₅₀ concentration is 100 - 1000 mg / l. Chronic effect at a concentration of 1 - 10 mg / l. Results are based on data from components or similar products.

Seaweed

The acute semi-lethal EC₅₀ concentration is 10 - 100 mg / l. Results are based on data from components or similar products.

Sea fish

No determination was made.

Marine spineless

No determination was made.

Bacteria

No determination was made.

12.2 Persistence and tendency to degradation

Difficult to biodegrade. Results are based on data from components or similar products.

12.3 Bioaccumulation potential

Unspecified

12.4 Mobility in soil

Due to its reduced water solubility, the product is mainly separated mechanically in biological treatment plants. Results are based on data from components or similar products.

12.5 Result of PBT and vPvB assessment

Absent

12.6 Other side effects

Safety Data Sheet

Prepared in accordance with Commission Regulation (EU) No.453/2010

Hydraulic oil HYDROL HM 68

Printed: 10.03.2021
version 1.0

Internal Product Code:02628

page 8 of 9

Unknown

SECTION 13: Disposal recommendations

13.1 Waste treatment methods

Recommendation

Cannot be disposed of with household waste. Do not allow to enter sewers and waterways.

Waste (unused products)

Waste oils and waste liquid fuels; Waste from the engine, gearbox, mineral based lubricants from the engine, gearbox, grease are hazardous waste.

Disposal of uncleaned packaging and recommended cleaning products

Packaging that cannot be cleaned must be recycled. Dispose of in accordance with official regulations.

SECTION 14: Transport safety requirements

14.1 UN Number

ADR/RID not regulated

ICAO not regulated

IMDG not regulated

14.2 UN exact shipping name

ADR/RID not regulated

ICAO not regulated

IMDG not regulated

14.3 Hazard classes of goods being transported

ADR/RID not regulated

ICAO not regulated

IMDG not regulated

14.4 Packaging

ADR/RID not regulated

ICAO not regulated

IMDG not regulated

14.5 Harmful impact on the environment

ADR/RID not regulated

ICAO not regulated

IMDG not regulated

14.6 Special precautions for users

Check eligibility before transporting material at elevated temperatures.

14.7 Transportation in bulk is carried out in accordance with Appendix II of the International Convention for the Prevention of Water Pollution 73/78 and IBC standards

Unspecified

SECTION 15: Regulatory information

15.1 Regulatory provisions concerning the safety, health and environment of the middle / legislation

Global Chemical Inventories

Australia

All components are in accordance with the Australian Chemical Designation Requirements.

Canada

All components are in accordance with the Canadian Environmental Protection Act and are on the List of Substances Permitted for Import.

China

All components of this product are listed on the China Existing Chemicals List.

EU

For more information on the compliance of this product with the REACH directive, please send your request to the address provided in section 1.

Japan

All components are in compliance with Japan Chemicals Control Law.

Korea

All components are in accordance with Korean regulations.

New Zealand

All components meet New Zealand chemical requirements.

The Philippines

All components are in compliance with the Philippine Toxic and Hazardous Substances and Nuclear Waste Control Act 1969 (R.A. 6969).

Switzerland

All components are in accordance with the Swiss List of Substances Hazardous to the Environment.

The USA

All components of this material are TSCA compliant or uncontrolled.

Safety Data Sheet

Prepared in accordance with Commission Regulation (EU) No.453/2010

Hydraulic oil HYDROL HM 68

Printed: 10.03.2021
version 1.0

Internal Product Code:02628

page 9 of 9

Water safety classes in Germany

Water pollution class WGK = 2 in accordance with the Aquatic Hazard Directive, VwVwS, dated 17 May 1999.

15. 2 Chemical restrictions

Chemical safety assessment has not been carried out.

SECTION 16: Other information

Created

Chief Technologist Department of LLC JV YUKOIL

Date of creation

05/03/2021

Risk guidelines (R Phrases)

R41 - Risk of serious damage to eyes

R43 - May cause sensitization by skin contact

R36 / R38 - Irritating to eyes and respiratory system

R50 / 53 - Very harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R51 / 53 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Important Risk Statements

H315 - Causes skin irritation

H318 - Causes serious eye damage

H400 - Very toxic to aquatic life

H410 - Very toxic to aquatic life with long lasting effects

H411 - Toxic to aquatic life with long lasting effects

Additional information

The above data applies only to the specified product, but they become invalid if the product is used in conjunction with other materials or processed. The data correspond to our current state of knowledge and experience, but they do not constitute a guarantee of the product quality, but only serve to describe the product and do not form the basis of the contractual relationship. Applicable laws and regulations must be respected by the recipient of our products at their own risk. (Data for Hazardous Ingredients was taken from the latest version of the supplier's safety data sheets.)