SAFETY DATA SHEET

1. IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER

1.1. Product Identifier

Product name: **Gazpromneft Hydraulic HLP-46**

Additional identification

Chemical name: Not applicable.

CAS-No: Not applicable.

1.2. Recommended use Hydraulic oil

Restriction on use None identified

1.3. Details of the supplier of the safety data sheet

Manufacturer: “Gazpromneft – lubricants”, Ltd,
14/3 Krzhizhanovskogo str. 117218, Moscow- Russia.
Lubricants@gazprom-neft.ru
Tel. +7 495 642-99-69 (between 9 AM and 6 PM Moscow time).
Fax +7 495 921-48-63

1.4. Emergency telephone number Tel. +7 495 642-99-69 (between 9 AM and 6 PM Moscow time).

2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Prepared according to Global Harmonized System (GHS) standards.
Not classified

2.2. Label elements: Not applicable
Safety data sheet available on request.

2.3. Other hazards which do not result in GHS classification: None identified.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances Not applicable: this product is regulated as a mixture.

3.2. Mixtures

Chemical Name	CAS / EC	Percent by Weight	Classification
Base oil - unspecified - lubricating oils	74869-22-0	<99	Product is not classified
Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts	68649-42-3	0,1-0,9	Skin Irrit. 2, H315 Eye Irrit. 2, H319
Methacrylate copolymer	EC: 931-551-3	0,1-0,9	Eye Irrit. 2, H319

Further information

All base oils contained in this product have a value of < 3% w DMSO extract according to IP 346/92.

4. FIRST AID MEASURES

4.1. Description of first aid measures

Inhalation Remove exposed person to fresh air if adverse effects are observed

Eye contact Flush thoroughly with water. If irritation occurs, get medical assistance. Remove contact lenses, if present and easy to do. Continue rinsing.

Skin contact Take off contaminated clothing and wash before re-use. Wash with soap and water. If skin irritation or rash occurs, get medical attention. Get medical attention if symptoms occur.

Ingestion Do not induce vomiting, get medical attention showing the SDS and label hazardous. Treat symptomatically.

4.2. Most important symptoms and effects, both acute and delayed

No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed

Seek medical attention if irritation or symptoms persist

5. FIRE-FIGHTING MEASURES

5.1. Extinguishing media

Use extinguishing media appropriate to the surrounding fire conditions (carbon dioxide (CO_2); dry chemical; foam; sand; water spray). Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Burning produces irritating, toxic and obnoxious fumes. Combustion products highly dependent on combustion conditions. A complex mixture of airborne solids, liquids and gases including carbon monoxide, carbon dioxide and unidentified organic compounds will be evolved when this material undergoes combustion.

5.3. Advice for firefighters

Wear suitable respiratory equipment when necessary. Do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Move undamaged containers from immediate hazard area if it can be done safely.

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Eliminate all sources of ignition in vicinity of spilled material. Ensure adequate ventilation of the working area. Surfaces contaminated with the product will become slippery. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away. See protective measures under point 7 and 8.

6.2. Environmental precautions

Avoid release to the environment. Do not contaminate water sources or sewer. Environmental manager must be informed of all major spillages. Prevent further leakage or spillage if safe to do so.

6.3. Methods and material for containment and cleaning up

Use appropriate techniques such as applying noncombustible absorbent materials or pumping. Sweep up. Transfer to suitable, labeled containers for disposal. Residual liquid can be absorbed on inert material.

6.4. Reference to other sections

See also section 8 and 13

7. HANDLING AND STORAGE:

7.1. Precautions for safe handling

Avoid contact with skin and eyes, inhalation of vapors and mists. Contaminated clothing should be changed before entering eating areas. Do not eat or drink while working. See also section 8 for recommended protective equipment.

7.2. Conditions for safe storage, including any incompatibilities

Keep in a cool, dry, well-ventilated area. Keep containers tightly closed. Stored in correctly labeled containers.

7.3. Specific end use(s)

No further relevant information available

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Occupational Exposure Limits

Chemical name	Type	Exposure Limit Values	Source
Base oil - unspecified - lubricating oils	TWA	5,4 mg/m^3	US. ACGIH Threshold Limit Values (02 2012)

8.2. Exposure controls

Appropriate engineering controls:

Material should be handled in enclosed vessels and equipment, in which case general (mechanical) room ventilation should be sufficient. Local exhaust ventilation or adequate ventilation should be used at points where dust, mist, vapors or gases can escape into the room air.

Individual protection measures: Wear protective clothing. Personal protective equipment should conform to appropriate standards, be suitable for use, be kept in good condition and properly maintained.

Eye/face protection: Not needed for normal use. Anyway, operate according good working practices.
In case of splashing, wear: approved safety goggles.

Skin protection - Hand protection: Use nitrile or neoprene gloves. Long sleeve shirt is recommended. Wear a chemically protective when contact with material may occur. Use neoprene or nitrile rubber boots when necessary to avoid contaminating shoes. Launder contaminated clothing before reuse.

Respiratory protection: Use in ventilated area. Use respirator with a combination organic vapor and high efficiency filter cartridge just if recommended exposure limit is exceeded. Use self-contained breathing apparatus for entry into confined space, for other poorly ventilated areas and for large spill clean-up sites.

Hygienic and Technical measures: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Light brown liquid
Odour	Petroleum odor
pH	Not applicable
Pour point	<-27°C
Initial boiling point and boiling range	Not applicable
Flash point	>210 °C (Cleveland Open Cup, ASTMD 92)
Evaporation rate	Not applicable
Upper/lower flammability	Not determined
Vapour density	Not applicable
Vapour pressure	Not applicable
Relative density	<890 kg/m^3 (at 20°C, ASTM D 4052)
Solubility in water	Insoluble
Partition coefficient: n-octanol/water	Not determined
Auto-ignition temperature	>165°C
Decomposition temperature	Not applicable
Viscosity (at 40 °C)	41.40-50.60 mm^2/s (ASTM D 445)
Viscosity (at 100 °C)	Not determined
Explosive properties	Not applicable
Oxidizing properties	Not determined
Volatile Organic compounds - VOCs	Not applicable
Other information	
Miscibility	Not applicable
Conductivity	Not applicable

10. STABILITY AND REACTIVITY

10.1. Reactivity This product has no significant hazards with respect to reactivity. Stable under normal conditions

10.2. Chemical stability Stable under normal conditions. Will not decompose if stored and used as recommended.

10.3. Passivity of hazardous reactions Will not occur. Stable under normal conditions.

10.4. Conditions to avoid Elevated temperatures, sparks and open flames.

10.5. Incompatible materials Strong oxidizing agents.

10.6. Hazardous decomposition products Burning produces irritating, toxic and obnoxious fumes.

11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute Toxicity on main components of the mixture

Base oil - unspecified - lubricating oils	Acute oral/rat LD_{50} > 5000 mg/kg Acute dermal/rabbit LD_{50} > 2000 mg/kg Acute inhalation/rat LC_{50} > 5000 mg/m^3
Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts	Acute oral/rat LD_{50} 3195 mg/kg Acute dermal/rabbit LD_{50} > 3160 mg/kg Acute inhalation/rat LC_{50} >5 g/m^3

11.2. Acute Toxicity of the mixture Based on available data, the classification criteria are not met.

Skin corrosion/irritation Avoid direct contact. Repeated or prolonged skin contact may cause irritation. Contact with heated product may cause thermal burns. Based on data from components or similar materials.

Serious eye damage/irritation Vapors may cause eye damage/irritation. Evaluation is based on data from components or similar materials.

Respiratory or skin sensitization Skin: Products have not been tested. Evaluation has been made through data of components.
Respiratory: No data available to indicate product or components may be respiratory sensitizers.

Carcinogenicity This product contains mineral oils, which are severely refined and not considered to be carcinogenic under IARC. All components in this product have been passed the test IP346 (DMSO extractible compounds less than 3%).

Germ cell mutagenicity Not Applicable.

Reproductive toxicity Not Applicable
STOT-single exposure Not Applicable
STOT-repeated exposure Not Applicable

Aspiration hazard Not considered an aspiration hazard.

12. ECOLOGICAL INFORMATION

12.1.Toxicity Adopt good working practices, so that the product is not released into the environment.

List of components with eco-toxicological properties

Quantity	Component	Ident. Numb.	Ecotox Infos
<99%	Base oil - unspecified - lubricating oils	CAS: 74869-22-0	EL_{50} a) Aquatic acute toxicity Daphnia magna > 10000 mg/L 48h NOELR a) Aquatic acute toxicity Algae > 100 mg/L 72h LL_{50} a) Aquatic acute toxicity Fish > 100 mg/L 96h NOELR b) Aquatic chronic toxicity Daphnia magna = 10mg/L 21 d NOELR b) Aquatic chronic toxicity Fish = 10 mg/L
0,1-0,9%	Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts	CAS: 68649-42-3	LC_{50} a) Aquatic acute toxicity Fish (Pimephales promelas) 1-5 mg/L, 96h EC_{50} a) Aquatic acute toxicity Crustacea 1-1,5 mg/L , 48h

12.2. Persistence and degradability Base oil - unspecified - lubricating oils: non-readily biodegradable.

12.3. Bio accumulative potential No additional information.

12.4. Mobility in soil Product floats on water (insoluble) and can entrape small organisms.

	The product could easily disperse in soil. Products have not been tested. Evaluation has been made through data of components.
12.5. Results of PBT and vPvB assessment	No PBT Ingredients are present.
12.6. Endocrine disrupting properties	No endocrine disruptor substances present in concentration >= 0.1%
12.7. Other adverse effects	No components with environmental hazard properties.

13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Disposal methods	Treatment, storage, transportation, and disposal must be in accordance with applicable Federal, State/Provincial, and Local regulations. Dispose of packaging or containers in accordance with local, regional, national and international regulations. Empty container contains product residue, which may exhibit hazards of product.
Disposal of packaging	Do NOT reuse empty containers. Empty containers can be sent for disposal or recycling.

14. TRANSPORT INFORMATION

Not classified as dangerous in the meaning of transport regulations.

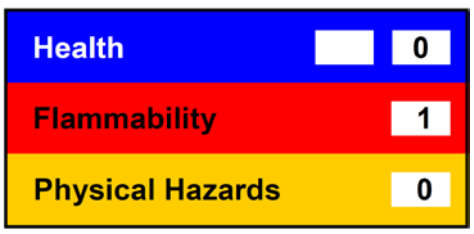
14.1. UN number	Not applicable.
14.2. UN proper shipping name	Not applicable.
14.3. Transport hazard class(es)	Not applicable.
14.4. Packing group	Not applicable.
14.5. Special precautions for user	Not applicable.
IATA **14.6. International standards**	Not regulated.
IMDG	
14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code	None known.

15. REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/ legislation specific for the substance or mixture	CHEMICAL INVENTORIES: All components comply with the following chemical inventory requirements: EINECS (European Union).
15.2. Chemical safety assessment	No data available on this product.

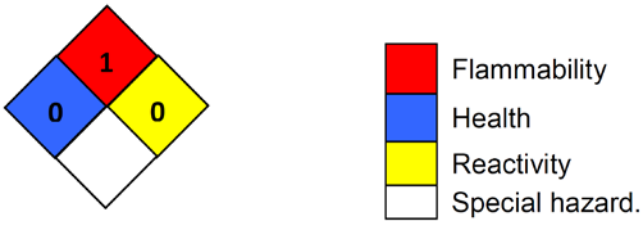
16. OTHER INFORMATION

HMIS Hazard ID



Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe; RNP - Rating not possible; *Chronic health effect

NFPA Hazard ID



Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe; RNP - Rating not possible

Text of Hazard statements in Section 3	H315 – Causes skin irritation. H319 – Causes serious eye irritation.
Legend to abbreviations and acronyms used in the safety data sheet:	CAS: Chemical Abstracts Service (division of the American Chemical Society). DMSO: Dimethyl sulfoxide. EC_{50}: Half Maximal Effective Concentration. IATA: International Air Transport Association. LD_{50}: Lethal Dose to 50 % of a test population. LC_{50}: Lethal Concentration to 50 % of a test population. PBT: Persistent, Bioaccumulative and Toxic substance. TWA - Time Weighted Average vPvB: Very Persistent and Very Bioaccumulative.
Further information	The information supplied in this Safety Data Sheet is designed only as guidance for the safe use, storage and handling of the product. This information is correct to the best of our knowledge and belief at the date of publication however no guarantee is made to its accuracy. This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any other process.
Revision 0	New version