



SAFETY DATA SHEET

Gulf Harmony ZF 46

10115/46/4US

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Version 1

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Name Gulf Harmony ZF 46
Product Code(s) 10115/46/4US

Recommended use of the chemical and restrictions on use

Recommended use Hydraulic oil
Uses advised against Any other purpose.

Details of the supplier of the safety data sheet

Manufacturer, Importer, Supplier

Supplier Gulf Lubricants Inc.
1800 Hughes Landing Boulevard. Suite 360
The Woodlands
Texas 77380
Tel : +1 (832) 585-1056
SDS@gulfoilltd.com

Emergency Telephone Number (US & Canada) +1 866 519 4752 (Code 335883)

SECTION 2: HAZARDS IDENTIFICATION

Classification

This product is not considered hazardous according to OSHA Hazard Communication Standard (29 CFR 1910.1200) / Canadian WHMIS 2015.

Label elements

Signal word
None

Hazard statements
None

Precautionary statements

Precautionary Statements - Prevention

Not applicable

Precautionary Statements - Response

Not applicable

Precautionary Statements - Storage

Not applicable

Precautionary Statements - Disposal

Not applicable

Hazards not otherwise classified (HNOC)

Health
Physical

Not Applicable.

Not Applicable.

Other Information**Other hazards**

The product does not contain any substance(s) classified as PBT or vPvB above the threshold of declaration

The product does not contain any substance(s) classified as endocrine disruptor above the threshold of declaration

The product does NOT contain component(s) that meet the 'definition' of per & poly fluoroalkyl substance (PFAS) per the US EPA.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

This product is a mixture. Health hazard information is based on its ingredients.

Chemical name	CAS No.	Weight-%
Highly refined base oil (Viscosity >20.5 cSt @40°C)	-	80% - 100%

The exact percentage (concentration) of composition has been withheld as a trade secret

Product containing mineral oil with less than 3% DMSO extract as measured by IP 346. See Section 15 for additional information on base oils. The highly refined base oil may be described by one or more of the following generic CAS identifiers: 64742-54-7, 64742-65-0, 64742-52-5, 64742-53-6, 64742-62-7, 64742-57-0, 64742-01-4, 64741-88-4, 64741-96-4, 64741-97-5, 64742-55-8, 64742-56-9, 64741-89-5, 8042-47-5.

SECTION 4: FIRST AID MEASURES**Description of first aid measures****General advice**

If symptoms persist, call a physician.

Inhalation

Remove to fresh air.

Skin contact

Wash off immediately with soap and plenty of water. Take off contaminated clothing and wash before reuse.

Eye contact

Keep eye wide open while rinsing. Rinse thoroughly with plenty of water, also under the eyelids.

Ingestion

Clean mouth with water. Do not induce vomiting without medical advice.

Self-protection of the first aider

Use personal protective equipment as required.

Most important symptoms and effects, both acute and delayed

Symptoms None known.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

SECTION 5: FIRE FIGHTING MEASURES**Extinguishing media****Suitable Extinguishing Media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Use: Carbon dioxide (CO₂). Dry chemical. Foam. Water spray or fog. Cool containers with flooding quantities of water until well after fire is out.

Unsuitable extinguishing media

Do not use straight streams. Do not scatter spilled material with high pressure water streams.

Special hazards arising from the substance or mixture**Specific hazards arising from the chemical**

Thermal decomposition can lead to release of irritating and toxic gases and vapors. In the event of fire and/or explosion do not breathe fumes. The product is insoluble and floats on water.

Hazardous combustion products Carbon monoxide. Carbon dioxide (CO₂).

Advice for firefighters

Special protective equipment and precautions for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.

SECTION 6: ACCIDENTAL RELEASE MEASURES**Personal precautions, protective equipment and emergency procedures**

Personal precautions Remove all sources of ignition. Ensure adequate ventilation. Extremely slippery when spilled.

For emergency responders Use personal protection recommended in Section 8.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system.

Methods and material for containment and cleaning up

Methods for containment Dike to collect large liquid spills.

Methods for cleaning up Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Take up mechanically, placing in appropriate containers for disposal.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

Reference to other sections

See also section 8/12/13

SECTION 7: HANDLING AND STORAGE**Precautions for safe handling**

Advice on safe handling Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice.

General hygiene considerations When using do not eat, drink or smoke. Take off contaminated clothing and wash before reuse.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep container tightly closed in a dry and well-ventilated place. Keep cool. Protect from sunlight. Keep away from open flames, hot surfaces and sources of ignition.

Incompatible materials Oxidizing agent.

Specific end use(s)

Hydraulic oil

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**Control Parameters**

Exposure Guidelines This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH	AIHA WEEL
Highly refined base oil (Viscosity >20.5 cSt @40°C)	5 mg/m ³ (oil mist)	5 mg/m ³ as mist		

Exposure controls

Engineering Measures Ensure adequate ventilation, especially in confined areas.

Individual protection measures, such as personal protective equipment

Personal protective equipment Engineering controls should be considered as the first line of protection against adverse exposure to harmful substances, Administrative controls and PPE should be used in the absence of engineering controls or as supplemental controls where engineering controls are insufficient in reducing specific exposures to an acceptable level

Eye/Face Protection Safety glasses with side-shields.

Hand Protection

For operations where prolonged or repeated skin contact may occur, impervious gloves should be worn. The following glove type may be suitable for handling this product: Protective gloves complying with EN 374.

Nitrile rubber

Glove thickness => 0.38 mm Break through time => 480 min

Butyl rubber

Glove thickness => 0.64 mm Break through time => 480 min

Glove material suitability will vary depending on specific use conditions. Consideration should be given to variables such as operational characteristics, anticipated contact time, task requirements and other factors relevant to the selection of PPE. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion. Any specific glove information provided is based on published literature and glove manufacturer data. Barrier creams may help to protect the exposed areas of skin. Barrier creams should not be applied after exposure has occurred. Gloves should be replaced regularly and if there is any sign of damage to the glove material.

Skin and body protection

Long sleeved clothing.

Respiratory protection

No special protective equipment required. In case of mist, spray or aerosol exposure wear suitable personal respiratory protection and protective suit.

Hygiene measures

Avoid contact with skin, eyes and clothing. Keep away from food, drink and animal feeding stuffs. Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product. Remove and wash contaminated clothing before re-use. Regular cleaning of equipment, work area and clothing is recommended.

Environmental Exposure Controls

Avoid release to the environment.

Thermal hazards

None under normal use conditions

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**Information on basic physical and chemical properties**

Physical state	Liquid	Appearance	clear Amber
Odor	Hydrocarbon-like	Odor threshold	Not Determined

<u>Property</u>	<u>Values</u>	<u>Remarks</u>
pH		
Melting point / freezing point		
Initial boiling point and boiling range		
Flash point	223 °C	ASTM D 92
Evaporation rate		
Flammability	Not Determined	
Flammability Limit in Air		
Upper flammability or explosive limits		
Lower flammability or explosive limits	Not applicable	
Vapor pressure	No data available	
Relative vapor density	No data available	
Relative density	0.8538	@15°C
Solubility(ies)	Immiscible in water	
Partition coefficient	Not determined	
Autoignition temperature	Not Determined	
Decomposition temperature		
Kinematic viscosity	46 cSt @ 40 °C	ASTM D 445
Explosive properties	Not applicable	
Oxidizing Properties	Not applicable	

Other Information

Viscosity, kinematic (100°C)	Not Determined
Pour Point	Not Determined
VOC Content (ASTM E-1868-10)	Not Determined
VOC content	Not Determined

SECTION 10: STABILITY AND REACTIVITY**Reactivity**

None under normal use conditions

Chemical stability

Stable under normal conditions.

Possibility of hazardous reactions

None under normal use conditions

Conditions to avoid

Keep away from open flames, hot surfaces and sources of ignition, Extremes of temperature and direct sunlight

Incompatible materials

Oxidizing agent

Hazardous decomposition products

Incomplete combustion and thermolysis produces potentially toxic gases such as carbon monoxide and carbon dioxide

SECTION 11: TOXICOLOGICAL INFORMATION**Product Information - Principle Routes of Exposure**

Inhalation	No known effect based on information supplied
Eye contact	No known effect based on information supplied
Skin contact	No known effect based on information supplied
Ingestion	No known effect based on information supplied

Acute toxicity - Product Information

Product does not present an acute toxicity hazard based on known or supplied information

Acute toxicity - Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Highly refined base oil (Viscosity >20.5 cSt @40°C)	>2000 mg/kg	>2000 mg/kg	>5 mg/L

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Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation Based on available data, the classification criteria are not met.

Serious eye damage / eye irritation Based on available data, the classification criteria are not met.

Sensitization**Respiratory Sensitization**

Based on available data, the classification criteria are not met.

Skin sensitization

Based on available data, the classification criteria are not met.

Germ cell mutagenicity

Based on available data, the classification criteria are not met.

Carcinogenicity

There are no known carcinogenic chemicals in this product.

Chemical name	ACGIH	IARC	NTP	OSHA
Highly refined base oil (Viscosity >20.5 cSt @40°C)	A4 – Not Classifiable as a Human Carcinogen	Group 3 – Not classifiable as to carcinogenicity to humans	Not listed	
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Reproductive toxicity Based on available data, the classification criteria are not met.

Specific target organ toxicity (single exposure) Based on available data, the classification criteria are not met.

Specific target organ toxicity (repeated exposure) Based on available data, the classification criteria are not met.

Aspiration hazard Based on available data, the classification criteria are not met.

Other adverse effects No information available.

SECTION 12: ECOLOGICAL INFORMATION**Ecotoxicity**

No special environmental measures are necessary

Chemical name	Algae/aquatic plants	Fish	Crustacea
Highly refined base oil (Viscosity >20.5 cSt @40°C)	>100: 72 h mg/L EC50	>100: 96 h mg/L LC50	>100: 48 h mg/L EC50

Persistence and degradability The product is not readily biodegradable, but it can be degraded by micro-organisms, it is regarded as being inherently biodegradable.

Bioaccumulation No information available.

Mobility No information available.

Other adverse effects No information available

SECTION 13: DISPOSAL CONSIDERATIONS**Waste treatment methods**

Waste Disposal Methods	Should not be released into the environment. Dispose of in accordance with federal, state and local regulations.
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers. Observe all label precautions until container is cleaned, reconditioned or destroyed.

SECTION 14: TRANSPORT INFORMATION

<u>DOT</u>	Not regulated
<u>TDG</u>	Not regulated
<u>MEX</u>	Not regulated
<u>IATA</u>	Not regulated
<u>IMDG</u>	Not regulated

SECTION 15: REGULATORY INFORMATION**Safety, health and environmental regulations/legislation specific for the substance or mixture**

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200) / Canadian WHMIS 2015

U.S. Federal Regulations**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

<i>Acute health hazard</i>	No
<i>Chronic Health Hazard</i>	No
<i>Fire hazard</i>	No
<i>Sudden Release of Pressure Hazard</i>	No
<i>Reactive Hazard</i>	No

Clean Water Act

This product contains petroleum oil components. These components are not specifically identified by CAS number as CWA hazardous substances or priority pollutants in the federal lists reviewed. However, releases or wastewater containing the product may be subject to applicable CWA/NPDES requirements, including controls for oil and grease. A discharge of oil may be reportable if it causes a film or sheen upon, or discoloration of, the surface of the water or adjoining shorelines, or causes a sludge or emulsion to be deposited beneath the surface of the water or upon adjoining shorelines.

CERCLA

To the best of our knowledge, this product does not contain chemicals at levels which require reporting under this regulation, Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

U.S. State Regulations**SCAQMD Rule 1144**

This product has not been tested for VOC content by the ASTM E-1868-10 method and is not approved for sale or distribution in the SCAQM District of California if the product is used as a metal forming, metal removal, metal treating, metal protection fluid or as a direct-contact lubricant.

California Proposition 65

This product does not contain any Proposition 65 chemicals

Canada**CEPA Toxic substances list: Schedule 1**

Not applicable

Prohibition of Certain Toxic Substances Regulations, 2012 (SOR/2012-285)

Not applicable

International Regulations**The Montreal Protocol on Substances that Deplete the Ozone Layer**

Not applicable

The Stockholm Convention on Persistent Organic Pollutants

Not applicable

The Rotterdam Convention

Not applicable

International Inventories**TSCA - United States Toxic Substances Control Act Section 8(b) Inventory**

All ingredients are on the inventory or exempt from listing

Other Information

The highly refined base oil (Viscosity >20.5 cSt @40°C) contains one or more substance with the following CAS/EC numbers:

Chemical name	CAS No.
Distillates (petroleum), solvent-refined heavy paraffinic	64741-88-4
Distillates (petroleum), solvent-refined light paraffinic	64741-89-5
Residual oils (petroleum), solvent deasphalted	64741-95-3
Distillates (petroleum), solvent-refined heavy naphthenic	64741-96-4
Distillates (petroleum), solvent-refined light naphthenic	64741-97-5

Residual oils (petroleum), solvent-refined	64742-01-4
Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5
Distillates (petroleum), hydrotreated light naphthenic	64742-53-6
Distillates (petroleum), hydrotreated heavy paraffinic	64742-54-7
Distillates (petroleum), hydrotreated light paraffinic	64742-55-8
Distillates (petroleum), solvent-dewaxed light paraffinic	64742-56-9
Residual oils (petroleum), hydrotreated	64742-57-0
Lubricating oils (petroleum), hydrotreated spent	64742-58-1
Residual oils (petroleum), solvent-dewaxed	64742-62-7
Distillates (petroleum), solvent-dewaxed heavy paraffinic	64742-65-0
Paraffin oils (petroleum), catalytic dewaxed heavy	64742-70-7
Paraffin oils (petroleum), catalytic dewaxed light	64742-71-8
Lubricating oils (petroleum), C>25, hydrotreated bright stock-based	72623-83-7
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based, high-viscosity	72623-85-9
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	72623-86-0
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based	72623-87-1
Lubricating oils	74869-22-0
White mineral oil (petroleum)	8042-47-5

SECTION 16: OTHER INFORMATION

NFPA **Health hazards** 0 **Flammability** 1 **Instability** 0 **Special hazards** -

Key or legend to abbreviations and acronyms used in the safety data sheet

ACGIH - American Conference of Governmental Industrial Hygienists

Derived No Effect Level (DNEL)

International Air Transport Association (IATA)

International Maritime Dangerous Goods (IMDG)

Persistent, Bioaccumulative, and Toxic (PBT) Substances

STOT RE - Specific target organ systemic toxicity (repeated exposure)

STOT SE - Specific target organ systemic toxicity (Single exposure)

IARC (International Agency for Research on Cancer)

NTP: (National Toxicity Program)

OSHA: (Occupational Safety & Health Administration)

STEL - Short Term Exposure Limit

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

TWA -

Time-Weighted Average

VOC - Volatile organic compounds

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Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The 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 process, unless specified in the text.

End of Safety Data Sheet