

Gulf Marine Pte. Ltd.

Chemwatch: **5612-50** Version No: **4.1** Safety Data Sheet in accordance with SS 586-3:2022 Issue Date: **11/09/2023** Print Date: **07/05/2025** S.GHS.SGP.EN.E

SECTION 1 Identification of the substance / mixture and of the company / undertaking

Product Identifier

Product name	GulfSea Hydraulic HVI Plus 46
Chemical Name	Not Applicable
Synonyms	Not Available
Chemical formula	Not Applicable
Other means of identification	2MT10460-00

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	Hydraulic oil
Nelevant identified uses	Use according to manufacturer's directions.

Details of the manufacturer or importer of the safety data sheet

Registered company name	Gulf Marine Pte. Ltd.
Address	37 Tuas Road 638503 Singapore
Telephone	+65 6592 0120
Fax	Not Available
Website	Not Available
Email	sds@gulf-marine.com

Emergency telephone number

Association / Organisation	Gulf Marine Pte. Ltd.
Emergency telephone number(s)	+65 6592 0120
Other emergency telephone number(s)	Not Available

SECTION 2 Hazards identification

Classification of the substance or mixture

Classification	Non hazardous	
Label elements		
Hazard pictogram(s)	Not Applicable	
Cinnal ward	Net Applicable	
Signal word	Not Applicable	
Hazard statement(s)		
Not Applicable		
Precautionary statement(s) Prevention		
Not Applicable		
Precautionary statement(s) Re	500050	
Not Applicable		

Precautionary statement(s) Storage

Not Applicable

Precautionary statement(s) Disposal

Not Applicable

Other hazards

Not Applicable

SECTION 3 Composition / information on ingredients

Substances

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name	Synonyms	Chemical formula
Not Available	NotSpec	proprietary ingredients		Not Available

SECTION 4 First aid measures

Description of first aid measures		
Eye Contact	 If this product comes in contact with eyes: Wash out immediately with water. If irritation continues, seek medical attention. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel. 	
Skin Contact	If skin or hair contact occurs: Flush skin and hair with running water (and soap if available). Seek medical attention in event of irritation. 	
Inhalation	 If fumes, aerosols or combustion products are inhaled remove from contaminated area. Other measures are usually unnecessary. 	
Ingestion	 Immediately give a glass of water. First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor. 	

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5 Firefighting measures

Extinguishing media

- Foam.
- Dry chemical powder.BCF (where regulations permit).
- Carbon dioxide.
- Water spray or fog Large fires only.

Special hazards arising from the substrate or mixture

Fire Incompatibility Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result

Advice for firefighters

Fire Fighting	 Alert Fire Brigade and tell them location and nature of hazard. Wear full body protective clothing with breathing apparatus. Prevent, by any means available, spillage from entering drains or water course. Use water delivered as a fine spray to control fire and cool adjacent area. Avoid spraying water onto liquid pools. DO NOT approach containers with water spray from a protected location. If safe to do so, remove containers from path of fire. 	
Fire/Explosion Hazard	 Combustible. Slight fire hazard when exposed to heat or flame. Heating may cause expansion or decomposition leading to violent rupture of containers. On combustion, may emit toxic fumes of carbon monoxide (CO). May emit acrid smoke. Mists containing combustible materials may be explosive. Combustion products include: carbon dioxide (CO2) phosphorus oxides (POx) sulfur oxides (SOx) other pyrolysis products typical of burning organic material. 	

SECTION 6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

See section 8

Environmental precautions

See section 12

Methods and material for containment and cleaning up

Minor Spills

- Remove all ignition sources.
 - Clean up all spills immediately.
 Avoid breathing vapours and contact with skin and eyes.
 - and the set of the set

	 Control personal contact with the substance, by using protective equipment. Contain and absorb spill with sand, earth, inert material or vermiculite. Wipe up. Place in a suitable, labelled container for waste disposal.
Major Spills	 Moderate hazard. Clear area of personnel and move upwind. Alert Fire Brigade and tell them location and nature of hazard. Wear breathing apparatus plus protective gloves. Prevent, by any means available, spillage from entering drains or water course. No smoking, naked lights or ignition sources. Increase ventilation. Stop leak if safe to do so. Contain spill with sand, earth or vermiculite. Collect recoverable product into labelled containers for recycling. Absorb remaining product with sand, earth or vermiculite. Collect solid residues and seal in labelled drums for disposal. Wash area and prevent runoff into drains. If contamination of drains or waterways occurs, advise emergency services.

Personal Protective Equipment advice is contained in Section 8 of the SDS.

SECTION 7 Handling and storage

cautions for safe handling	
	Avoid all personal contact, including inhalation.
	Wear protective clothing when risk of exposure occurs.
	Use in a well-ventilated area.
	Prevent concentration in hollows and sumps.
	DO NOT enter confined spaces until atmosphere has been checked.
	Avoid smoking, naked lights or ignition sources.
	Avoid contact with incompatible materials.
Safe handling	When handling, DO NOT eat, drink or smoke.
	Keep containers securely sealed when not in use.
	Avoid physical damage to containers.
	Always wash hands with soap and water after handling.
	 Work clothes should be laundered separately.
	Use good occupational work practice.
	Observe manufacturer's storage and handling recommendations contained within this SDS.
	Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions.
	Store in original containers.
	Keep containers securely sealed.
	No smoking, naked lights or ignition sources.
Other information	Store in a cool, dry, well-ventilated area.
	Store away from incompatible materials and foodstuff containers.
	Protect containers against physical damage and check regularly for leaks.
	 Observe manufacturer's storage and handling recommendations contained within this SDS.

Conditions for safe storage, including any incompatibilities

• ·	
Suitable container	 Metal can or drum Packaging as recommended by manufacturer. Check all containers are clearly labelled and free from leaks.
Storage incompatibility	Avoid contamination of water, foodstuffs, feed or seed. ► Avoid reaction with oxidising agents

SECTION 8 Exposure controls / personal protection

Control parameters

Occupational Exposure Limits (OEL)

INGREDIENT DATA	
Not Available	

Ingredient	Original IDLH	Revised IDLH
GulfSea Hydraulic HVI Plus 46	Not Available	Not Available

Exposure controls

Appropriate engineering controls	Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-desig can be highly effective in protecting workers and will typically be independent of worker interactions to provide this for The basic types of engineering controls are: Process controls which involve changing the way a job activity or process is done to reduce the risk. Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and strategically "adds" and "removes" air in the work environment. Ventilation can remove or dilute an air contaminant in design of a ventilation system must match the particular process and chemical or contaminant in use. Employers may need to use multiple types of controls to prevent employee overexposure.	igh level of protection.
	General exhaust is adequate under normal operating conditions. If risk of overexposure exists, wear SAA approved essential to obtain adequate protection. Provide adequate ventilation in warehouse or closed storage areas. Air con the workplace possess varying "escape" velocities which, in turn, determine the "capture velocities" of fresh circulat effectively remove the contaminant.	taminants generated i
	Type of Contaminant:	Air Speed:
	solvent, vapours, degreasing etc., evaporating from tank (in still air)	0.25-0.5 m/s (50- 100 f/min)
	aerosols, fumes from pouring operations, intermittent container filling, low speed conveyer transfers, welding,	0.5-1 m/s (100-

direct spray, spray painting in shallow booths, drum filling, conveyer loading, crusher dusts, gas discharge (active 1-2.5 m/s (200-500 f/min) generation into zone of rapid air motion) grinding, abrasive blasting, tumbling, high speed wheel generated dusts (released at high initial velocity into zone 2.5-10 m/s (500of very high rapid air motion). 2000 f/min.) Within each range the appropriate value depends on: Upper end of the range Lower end of the range 1: Room air currents minimal or favourable to capture 1: Disturbing room air currents 2: Contaminants of low toxicity or of nuisance value only 2: Contaminants of high toxicity 3: Intermittent, low production. 3: High production, heavy use 4: Large hood or large air mass in motion 4: Small hood - local control only Simple theory shows that air velocity falls rapidly with distance away from the opening of a simple extraction pipe. Velocity generally decreases with the square of distance from the extraction point (in simple cases). Therefore the air speed at the extraction point should be adjusted, accordingly, after reference to distance from the contaminating source. The air velocity at the extraction fan, for example, should be a minimum of 1-2 m/s (200-400 f/min.) for extraction of solvents generated in a tank 2 meters distant from the extraction point. Other mechanical considerations, producing performance deficits within the extraction apparatus, make it essential that theoretical air velocities are multiplied by factors of 10 or more when extraction systems are installed or used. Individual protection measures, such as personal protective equipment Safety glasses with side shields Chemical goggles. [AS/NZS 1337.1, EN166 or national equivalent] Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel Eve and face protection should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 591. Skin protection See Hand protection below Wear general protective gloves, eg. light weight rubber gloves. The selection of suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer. Where the chemical is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application. The exact break through time for substances has to be obtained from the manufacturer of the protective gloves and has to be observed when making a final choice. Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturiser is recommended. Suitability and durability of glove type is dependent on usage. Important factors in the selection of gloves include: · frequency and duration of contact. · chemical resistance of glove material, · glove thickness and dexterity Select gloves tested to a relevant standard (e.g. Europe EN 374, US F739, AS/NZS 2161.1 or national equivalent). • When prolonged or frequently repeated contact may occur, a glove with a protection class of 5 or higher (breakthrough time greater than 240 minutes according to EN 374, AS/NZS 2161.10.1 or national equivalent) is recommended. When only brief contact is expected, a glove with a protection class of 3 or higher (breakthrough time greater than 60 minutes according to EN 374, AS/NZS 2161.10.1 or national equivalent) is recommended. Some glove polymer types are less affected by movement and this should be taken into account when considering gloves for long-term Hands/feet protection use Contaminated gloves should be replaced. As defined in ASTM F-739-96 in any application, gloves are rated as: · Excellent when breakthrough time > 480 min Good when breakthrough time > 20 min · Fair when breakthrough time < 20 min Poor when glove material degrades For general applications, gloves with a thickness typically greater than 0.35 mm, are recommended. It should be emphasised that glove thickness is not necessarily a good predictor of glove resistance to a specific chemical, as the permeation efficiency of the glove will be dependent on the exact composition of the glove material. Therefore, glove selection should also be based on consideration of the task requirements and knowledge of breakthrough times. Glove thickness may also vary depending on the glove manufacturer, the glove type and the glove model. Therefore, the manufacturers technical data should always be taken into account to ensure selection of the most appropriate glove for the task. Note: Depending on the activity being conducted, gloves of varying thickness may be required for specific tasks. For example: Thinner gloves (down to 0.1 mm or less) may be required where a high degree of manual dexterity is needed. However, these gloves are only likely to give short duration protection and would normally be just for single use applications, then disposed of. Thicker gloves (up to 3 mm or more) may be required where there is a mechanical (as well as a chemical) risk i.e. where there is abrasion or puncture potential Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturiser is recommended See Other protection below Body protection No special equipment needed when handling small quantities. OTHERWISE: Other protection Overalls. Barrier cream. Eyewash unit.

Respiratory protection

Type A Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

Selection of the Class and Type of respirator will depend upon the level of breathing zone contaminant and the chemical nature of the contaminant. Protection Factors (defined as the ratio of contaminant outside and inside the mask) may also be important.

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GulfSea	Hyd	Iraulic	HVI	Plus	46	
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Required minimum protection factor	Maximum gas/vapour concentration present in air p.p.m. (by volume)	Half-face Respirator	Full-Face Respirator
up to 10	1000	A-AUS / Class1	-
up to 50	1000	-	A-AUS / Class 1
up to 50	5000	Airline *	-
up to 100	5000	-	A-2
up to 100	10000	-	A-3
100+			Airline**

* - Continuous Flow ** - Continuous-flow or positive pressure demand

A(All classes) = Organic vapours, B AUS or B1 = Acid gasses, B2 = Acid gas or hydrogen cyanide(HCN), B3 = Acid gas or hydrogen cyanide(HCN), E = Sulfur dioxide(SO2), G = Agricultural chemicals, K = Ammonia(NH3), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds(below 65 degC)

Cartridge respirators should never be used for emergency ingress or in areas of unknown vapour concentrations or oxygen content.

The wearer must be warned to leave the contaminated area immediately on detecting any odours through the respirator. The odour may indicate that the mask is not functioning properly, that the vapour concentration is too high, or that the mask is not properly fitted. Because of these limitations, only restricted use of cartridge respirators is considered appropriate.

• Cartridge performance is affected by humidity. Cartridges should be changed after 2 hr of continuous use unless it is determined that the humidity is less than 75%, in which case, cartridges can be used for 4 hr. Used cartridges should be discarded daily, regardless of the length of time used

SECTION 9 Physical and chemical properties

Information on basic physical and chemical properties

Appearance	Clear to yellow colored oily liquid with a characteristic odor; does not mix with water. Yellow		
Physical state	Liquid	Relative density (Water = 1)	~0.86
Odour	Characteristic	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	>300
pH (as supplied)	Not Applicable	Decomposition temperature (°C)	>300
Melting point / freezing point (°C)	-33°C (pour point)	Viscosity (cSt)	46.9, 8.1 (100°C)
Initial boiling point and boiling range (°C)	Not Available	Molecular weight (g/mol)	Not Applicable
Flash point (°C)	222 (OC, ASTM D92)	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	Not Applicable	Oxidising properties	Not Available
Upper Explosive Limit (%)	Not Available	Surface Tension (dyn/cm or mN/m)	Not Available
Lower Explosive Limit (%)	Not Available	Volatile Component (%vol)	Not Available
Vapour pressure (kPa)	<0.01 (20°C)	Gas group	Not Available
Solubility in water	Immiscible	pH as a solution (1%)	Not Applicable
Vapour density (Air = 1)	Not Available	VOC g/L	Not Available
Heat of Combustion (kJ/g)	Not Available	Ignition Distance (cm)	Not Available
Flame Height (cm)	Not Available	Flame Duration (s)	Not Available
Enclosed Space Ignition Time Equivalent (s/m3)	Not Available	Enclosed Space Ignition Deflagration Density (g/m3)	Not Available

SECTION 10 Stability and reactivity

Reactivity	See section 7
Chemical stability	Product is considered stable and hazardous polymerisation will not occur.
Possibility of hazardous reactions	See section 7
Conditions to avoid	See section 7
Incompatible materials	See section 7
Hazardous decomposition products	See section 5

SECTION 11 Toxicological information

Information on toxicological effects

Based on available data, the classification criteria are not met.
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h) STOT - Single Exposure	Based on available data, the classification criteria are not met.		
i) STOT - Repeated Exposure	Based on available data, the classification criteria are not met.		
j) Aspiration Hazard	Based on available data, the classification criteria a	re not met.	
Inhaled	The material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting.		
Ingestion	The material has NOT been classified by EC Directives or other classification systems as "harmful by ingestion". This is because of the lack of corroborating animal or human evidence.		
Skin Contact	The liquid may be able to be mixed with fats or oils and may degrease the skin, producing a skin reaction described as non-allergic contact dermatitis. The material is unlikely to produce an irritant dermatitis as described in EC Directives.		
Eye	Although the liquid is not thought to be an irritant (as classified by EC Directives), direct contact with the eye may produce transient discomfort characterised by tearing or conjunctival redness (as with windburn).		
Chronic	Long-term exposure to the product is not thought to animal models); nevertheless exposure by all routes		
GulfSea Hydraulic HVI Plus	τοχιςιτγ	IRRITATION	
46	Not Available	Not Available	
Legend:	1. Value obtained from Europe ECHA Registered S specified data extracted from RTECS - Register of		btained from manufacturer's SDS. Unless otherwise
Acute Toxicity	×	Carcinogenicity	×
Skin Irritation/Corrosion	×	Reproductivity	×
Serious Eve			

STOT - Repeated Exposure X Aspiration Hazard X Legend: X – Data either not available or does not fill the criteria for classification

STOT - Single Exposure

Data available to make classification

×

Other information

Not Available

SECTION 12 Ecological information

Damage/Irritation Respiratory or Skin

sensitisation

Mutagenicity

×

×

×

Toxicity

GulfSea Hydraulic HVI Plus 46	Endpoint	Test Duration (hr)	Species	Value	Source
	Not Available	Not Available	Not Available	Not Available	Not Available
Legend:	Ecotox databa		ered Substances - Ecotoxicological Information - A azard Assessment Data 6. NITE (Japan) - Bioconc		

DO NOT discharge into sewer or waterways.

Persistence and degradability Ingredient Persistence: Water/Soil Persistence: Air No Data available for all ingredients No Data available for all ingredients Bioaccumulative potential Ingredient Bioaccumulation No Data available for all ingredients No Data available for all ingredients

Other adverse effects

No evidence of ozone depleting properties were found in the current literature.

SECTION 13 Disposal considerations

Waste treatment methods Product / Packaging disposal Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to laws operating in their area. In some areas, certain wastes must be tracked. A Hierarchy of Controls seems to be common - the user should investigate: Reduction Reuse

Recycling

Disposal (if all else fails)
This material may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use. If it has been contaminated, it may be possible to reclaim the product by filtration, distillation or some other means. Shelf life considerations should also be applied in making decisions of this type. Note that properties of a material may change in use, and recycling or reuse may not always be appropriate.
 DO NOT allow wash water from cleaning or process equipment to enter drains.
It may be necessary to collect all wash water for treatment before disposal.
In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first.
Where in doubt contact the responsible authority.
Recycle wherever possible or consult manufacturer for recycling options.
 Consult State Land Waste Authority for disposal.
Bury or incinerate residue at an approved site.
Recycle containers if possible, or dispose of in an authorised landfill.

SECTION 14 Transport information

Labels Required	
Marine Pollutant	NO

Land transport (UN): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Air transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

14.7. Maritime transport in bulk according to IMO instruments

14.7.1. Transport in bulk according to Annex II of MARPOL and the IBC code Not Applicable

14.7.2. Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code

Product name	Group
44.7.0 Transmost in built in an and once with the IOO Onde	

14.7.3. Transport in bulk in accordance with the IGC Code

Product name Ship Type

SECTION 15 Regulatory information

Safety, health and environmental regulations / legislation specific for the substance or mixture

Additional Regulatory Information

Not Applicable

National Inventory Status

National Inventory	Status
Australia - AIIC / Australia Non- Industrial Use	Not Available
Canada - DSL	Not Available
Canada - NDSL	Not Available
China - IECSC	Not Available
Europe - EINEC / ELINCS / NLP	Not Available
Japan - ENCS	Not Available
Korea - KECI	Not Available
New Zealand - NZIoC	Not Available
Philippines - PICCS	Not Available
USA - TSCA	Not Available
Taiwan - TCSI	Not Available
Mexico - INSQ	Not Available
Vietnam - NCI	Not Available
Russia - FBEPH	Not Available
Legend:	Yes = All CAS declared ingredients are on the inventory No = One or more of the CAS listed ingredients are not on the inventory. These ingredients may be exempt or will require registration.

SECTION 16 Other information

Revision Date	11/09/2023
Initial Date	26/06/2023

Other information

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be

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considered.

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 and may be subject to modification from time to time. It is the user's responsibility to verify that this Safety Data Sheet is current prior to use or application. The information given is designed only as a guidance for safe handling, use, application, 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.