Performance Par Excellence





Heat Transfer Fluids



Industrial Oils





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DIVYOL THERM 500

Section 1: Identification of the Substance / Mixtur	e				
1.1 Product identifier					
Product name	me Divyol Therm 500				
Product description	Heat Transfer Fluid				
Product type	Industrial Oil				
MARPOL Annex-1	****				
1.2 Identified uses					
Distribution of substance	Industrial				
Formulation & (re)packing of substance & mixtures	Industrial				
Manufacture of substance	Industrial				
Functional fluids	Industrial				
Section 2: Hazard Identification	I				
4-Extreme	Health	1			
3-High	Flammability	1			
2-Moderate	Reactivity	0			
1-Slight	Special	-			
Section 3: Compostion / Information on Ingredier	its				
Product / Ingredient name	CAS No.: Not applicable for blended product. Distillates (Petroleum) mixture of hydro-treated hydrocarbons.				
Section 4: First Aid Measures	1				
Inhalation exposure	Remove to fresh air & provide oxyc	gen, if breathing is difficult. Contact physician			
Skin contact	Remove contaminated clothing. Flush skin with water. Wash skin thoroughly with mild soap & water. If irritation occurs, call a physician.				
Swallowing or other	Do not induce vomiting. In general no treatment is necessary unless large quantities are ingested. Get medical advice.				
Eye contact	Rinse continuously with water for several minutes. Get medical attention, if irritation persists.				
Protection first-aiders	Disconnecting electrical supply. Ensure adequate ventilation and check that a safe and breathing area is available before entry into confined spaces.				
Section 5: Fire Fighting Measures					
5.1 Extinguishing media					
Unsuitable extinguishing media	Lise dry powder foam carbon dioxide. Do not use direct water and wet chemicals, or water on the				
5.2 Special hazards arising from the substance or mixtu	re				
Hazards from the substance or mixture	Flammable liquids in pressurised containers may rupture and when exposed to heat, creating a highly flammable vapour cloud.				
Hazardous thermal decomposition products	Incomplete combustion is likely to give rise to a complex mixture of airborne solid and liquid particulates, gases, including carbon monoxide, H_2S , SO_x (sulphur oxides) or sulphuric acid and unidentified organic and inorganic compounds.				
5.3 Advice for firefighters					
Special precautions for firefighters	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.				
Special protective equipment for firefighters	Firefighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face- piece operated in positive pressure mode. Clothing for firefighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.				



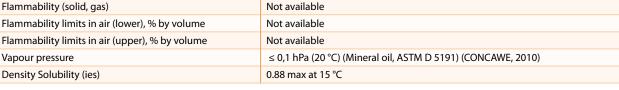


6.1 Personal precautions, protective equipment and emergency procedures					
For non-emergency personnel	Keep non-involved personnel away from the area of spillage. Alert emergency personnel. Except in case of small spillages, the feasibility of any actions should always be assessed and advised, if possible, by a trained, competent person in charge of managing the emergency. Stop leak if safe to do so. Avoid direct contact with the product. Stay upwind / keep distance from source. In case of large spillages, alert occupants in downwind areas. Eliminate all ignition sources if safe to do so. Spillages of limited amounts of product, especially in the open air when vapours will be usually quickly dispersed, are dynamic situations, which will presumably limit the exposure to dangerous concentrations. Note : Recommended measures are based on the most likely spillage scenarios for this material; however, local conditions (wind, air temperature, wave / current direction and speed) may significantly influence the choice of appropriate actions.				
For emergency responders	For this reason, local experts should be consulted when necessary. Local regulations may also prescribe or limit actions to be taken. Small spillages: Normal antistatic working clothes are usually adequate. Large spillages: Full body suit of chemically resistant and thermal resistant material should be used. Work gloves providing adequate chemical resistance, specifically to aromatic hydrocarbons. Note: Gloves made of PVA are not water-resistant, and are not suitable for emergency use. Safety helmet, antistatic non-skid safety shoes or boots. Goggles and / or face shield, if splashes or contact with eyes is possible or anticipated. Respiratory Protection : A half or full-face respirator with filter(s) for organic vapours (and when applicable for H ₂ S) a Self Contained Breathing Apparatus (SCBA) can be used according to the extent of spill and predictable amount of exposure. If the situation cannot be completely assessed, or if an oxygen deficiency is possible, only SCBA's should be used.				
6.2 Environmental precautions	Prevent product from entering sewers, rivers or other bodies of water. If necessary dike the product with dry earth, sand or similar non-combustible materials. In case of soil contamination, remove contaminated soil and treat in accordance with local regulations. In case of small spillages in closed waters (i.e. ports), contain product with floating barriers or other equipment. Collect spilled product by absorbing with specific floating absorbents. If possible, large spillages in open waters should be contained with floating barriers or other mechanical means. If this is not possible, control the spreading of the spillage, and collect the product by skimming or other suitable mechanical means. The use of dispersants should be advised by an expert, and, if required, approved by local authorities.				
6.3 Methods and material for containment and cleaning	up				
Small spill	Stop leak if without risk. Absorb spilled product with suitable non-combustible materials.				
Large spill	Large spillages may be cautiously covered with foam, if available, to limit vapour cloud formation. Do not use water jet. When inside buildings or confined spaces, ensure adequate ventilation. Transfer collected product and other contaminated materials to suitable containers for recovery or safe disposal.				
6.4 Reference to other sections	See Section 1: For emergency contact information. See Section 8: For information on appropriate personal protective equipment. See Section 13: For additional waste treatment information.				
Section 7: Handling and Storage					
7.1 Advice on general information – hygiene, storage	Obtain special instructions before use. Keep away from heat / sparks / open flames/hot surfaces. No smoking. Use and store only outdoors or in a well-ventilated area. Hazard of slipping on spilt product. Avoid release to the environment.				
7.2 Conditions for safe storage including any incompatibilities	Storage area layout, tank design, equipment and operating procedures must comply with the relevant regional, national or local legislation. Storage installations should be designed with adequate bunds in case of leaks or spills. Cleaning, inspection and maintenance of internal structure of storage tanks must be done only by properly equipped and qualified personnel as defined by national, local or company regulations. Store separately from oxidising agents. Keep only in the original container or in a suitable container for this kind of product. Keep container tightly closed and sealed until ready for use. Do not store in unlabelled containers. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Empty containers may contain harmful, flammable / combustible or explosive residue or vapours. Do not cut, grind, drill, weld, reuse or dispose of containers unless adequate precautions are taken against these hazards. Protect from sunlight.				
7.3 Specific end use(s) – Recommendations	Not available				





Section 8: Exposure Controls / Personal Prot	ection
The list of Identified Uses in Section 1 should be cor	nsulted for any available use-specific information provided in the Exposure Scenario(s).
8.1 Control parameters	
Occupational exposure limits	
Product / Ingredient name	Distillates, mixture of hydrocarbons
Exposure limits values	AFS 2015:7 (Sweden, 12/2015). TWA: 1 mg/m ³ 8 hours. Form: mist and fume STEL: 3 mg/m ³ 15 minutes. Form: mist and fume [Air contaminant]. AFS 2015:7 (Sweden, 12/2015). TWA: 1 mg/m ³ 8 hours. Form: mist and fume STEL: 3 mg/m ³ 15 minutes. Form: mist and fume.
Recommended monitoring procedures	If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres – Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres – Guide for the application and use of procedures for the assessment of exposure to chemical agents for the performance of procedures for the measurement of chemical agents). Reference to national guidance documents for methods for the determination of hazardous substances will also be required.
8.2 Exposure control Appropriate engineering controls	Mechanical ventilation and local exhaust will reduce exposure via the air. Use oil resistant material in construction of handling equipment. Store under recommended conditions and if heated, temperature control equipment should be used to avoid overheating.
Individual protection measures	
Hygiene measures	Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Ensure that eyewash stations and safety showers are close to the workstation location. Wash contaminated clothing before reuse.
Eye / face protection	Recommended: Safety glasses with side shields.
Skin protection	
Hand protection	4 – 8 hours (breakthrough time): nitrile rubber.
Body protection	Wear protective clothing if there is a risk of skin contact. Change contaminated clothes at the end of working shift.
Other skin protection	Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary.
Environmental exposure control	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptabl levels.
Section 9: Physical and Chemical Properties	
Appearance	Clear
Physical state	Liquid
Colour	Yellow
Odor	Petroleum odor
Odour threshold	Not available
рН	Not applicable
Pour point	< -9 °C (ASTM D 97)
Flash point	> 200 °C
Evaporation rate	Not available
Flammability (solid, gas)	Not available









Solubility (water)		Insoluble in water			
Partition coefficient (n-octanol/water)		Not available			
Decomposition temperature		No data			
Auto-ignition temperature		>300 °C			
Kinematic viscosity at 40 °C (104 °	F)	30 cSt (ASTM D	445) (Typical Value)		
Explosive properties		No data			
Oxidising properties		No data			
DMSO extractable compounds for according to IP346	r base oil substance(s)	Not available <3 %			
Section 10: Stability and Rea	ctivity				
10.1 Reactivity		No specific test	data related to reactivity avail	able for this product or its ingr	redients.
10.2 Chemical stability		Stable under no	ormal conditions		
10.3 Possibility of hazardous rea	octions	Under normal c	onditions of storage and use, I	nazardous reactions will not o	ccur. Oxidising agent.
10.4 Conditions to avoid		Keep away from	n extreme heat and oxidising a	gents.	
10.5 Incompatible materials		Incomplete con	nbustion is likely to give rise to ses, including carbon monoxic	a complex mixture of airborn le H.S. SO. (sulphur oxides) or	e solid and liquid sulphuric acid and
10.6 Hazardous decomposition	products		ganic and inorganic compound		
SECTION 11: Toxicological In	formation				
11.1 Information on toxicologica	al effects				
Acute toxicity					
Product / ingredient name	Result		Species	Dose	Exposure
	LC 50 Inhalation due	sts and mists	Rat	>2.18mg/l	4 hours
Distillate (Petroleum), hydro treated heavy paraffinic	LD 50 Dermal		Rabbit	> 5000 mg/kg	_
treated neavy paraminic	LD 50 Oral		Rat	>15000 mg/kg	_
Irritation / corrosion					
Skin					
Eye		No known significant effects or critical hazards.			
Respiratory					
Sensation					
Skin					
Respiratory		No known signi	ificant effects or critical hazard	S.	
Mutagenicity		No data available to indicate product or any components present greater than 0.1 % are multigene or genotoxic.			
Carcinogenicity			n this product is based on an s	everely hydrotreated distillate	
carcinogenicity			•		
Reproductive toxicity		The product should not be regarded as a carcinogen. Contains no ingredient listed as toxic to reproduction.			
Specific target organ toxicity – sin		Not classified			
Specific target organ toxicity – rep	beated exposure				
Aspiration hazard		Aspiration hazard – Category 1			
Information on likely routes of exposure		Not available			
Potential acute health effects					
Eye contact		Eye contact may cause redness and transient pain.			
Inhalation			I mist or vapours at elevated te		atory irritation.
Skin contact			ificant effects or critical hazard	S.	
Ingestion		May be fatal if s	wallowed and enters airways.		
Potential chronic health effects					
General		No known significant effects or critical hazards.			
Carcinogenicity		The base oil(s) in this product is based on an severely hydrotreated distillate. The product should not be regarded as a carcinogen.			







Mutagenicity					
Teratogenicity		No known s	significant effects or critical haz	ards.	
Product / ingredient name					
Fertility effects		Not availab			
Other information Specific hazard		NOT AVAIIAD	le		
Section 12: Ecological Information		N			
12.1 Toxicity			ed to be harmful to aquatic org	janisms.	
12.2 Persistence and degradability			ntly biodegradable.		le titte og føde te og mendes og
12.3 Bioaccumulative potential			iation is unlikely to be significa ered mobile.	nt because of the low water solu	ibility of this product.
12.4 Mobility in soil 12.5 Results of PBT & vPvB assessment					
12.5 Results of PB1 & VPVB assessment		Not applica		n water curfaces causing physics	al damago to organisms
12.6 Other adverse effects			nsfer could also be impaired.	n water surfaces causing physica	al damage to organisms.
Section 13: Disposal Consideration	าร				
The information in this section contains information provided in the Exposure Sc		d guidance. T	he list of Identified Uses in Sect	tion 1 should be consulted for ar	ny available use-specific
Product Methods of disposal		Where possible (e.g. in the absence of relevant contamination), recycling of used substance is feasible and recommended. This substance can be burned or incinerated, subject to national/local authorisations, relevant contamination limits, safety regulations and air quality legislation. Contaminated or waste substance (not directly recyclable): Disposal can be carried out directly, or by delivery to qualified waste handlers. National legislation may identify a specific organisation, and/or prescribe composition limits and methods for recovery or disposal			
Hazardous waste		Yes			
European waste catalogue (EWC) Waste	Code 13 03 07*	Waste desi	gnation.		
Packaging		Mineral-based non-chlorinated insulating and heat transmission oils.			
Methods of disposal		The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.			
Section 14: Transport Information					
International transport regulations					
	ADR / R	ID	ADN	IMO / IMDG Classification	ICAO / IATA Classification
14.1 UN number	Not regul	ated	Not regulated	Not regulated	Not regulated
14.2 UN proper shipping name	_		_	_	_
14.3 Transport hazard class(es)	-		-	-	-
14.4 Packing group	_		-	-	_
14.5 Environmental hazards	No		No	No	No
Additional Information	_		-	-	_
14.6 Special precautions for user oils					
14.7 Transport in bulk according to An	nex of MARPOL	73/78 and th	e IBC Code		
Section 15: Regulatory Informatio					
		slation speci	fic for the substance or mixtur	e EU Regulation (EC) No. 1907/	2006 (REACH)
Annex XIV – List of substances subject to Annex XIV Substances of very high concern	islation specific for the substance or mixture EU Regulation (EC) No. 1907/2006 (REACH) None of the components are listed				
Annex XVII – Restrictions on the manufa on the market and use of certain danger mixtures and articles.	Not applicable				
International Lists National Inventory	Inventory name				
Australia	Australian Inventory of Chemical Substances (AICS) – Yes				
Canada		Domestic Substances List (DSL) – Yes Non-Domestic Substances List (NDSL) – No			
China		Inventory of Existing Chemical Substances in China (IECSC) – Yes			
China		interiory of Existing chemical substances in china (ECSC) = 165			







_	European Inventory of Existing Commercial Chemical Substances (EINECS) – Yes			
Europe	European List of Notified Chemical Substances (ELINCS) – No			
Japan	Inventory of Existing and New Chemical Substances (ENCS) – Yes			
Korea	Existing Chemicals List (ECL) – Yes			
New Zealand	New Zealand Inventory – Yes			
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS) – Yes			
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory – Yes			
	oly with the inventory requirements administered by the governing country(s) uct are not listed or exempt from listing on the inventory administered by the governing country(s).			
Section 16: Other Information				
Revision comments				
Legend to abbreviations				
ADR	European agreement concerning the international carriage of dangerous good by road.			
RID	Regulations agreement concerning the international carriage of dangerous good by rail.			
IMDG Code	International Maritime Dangerous Goods Code.			
ICAO	International Civil Aviation Organization.			
IATA	International Air Transport Association.			
GHS	Globally Harmonized System of Classification and Labeling of Chemicals.			
CLP	Classification, Labelling and Packaging Regulation [Regulation (EC) No.1272/2008].			
SCBA	Self-Contained Breathing Apparatus.			
REACH	Registration, Evaluation, Authorization and Restriction of Chemicals Regulation [Regulation (EC) No. 1907/2006].			
LC 50	Median lethal concentration.			
LD 50	Median lethal dose.			
PBT	Persistent, Bio accumulative and Toxic.			

GANDHAR OIL REFINERY (INDIA) LTD.			
Taloja Plant	Plot No.10, MIDC, Main Road, Taloja, Taluka Panvel, District - Raigad 410208, India.		
Silvassa Plant	Plot No. 2, Survey No. 678/1/3, Village Naroli, Near Naroli Check Post, Silvassa, Dadra & Nagar Haveli, Union Territory 396230, India.		
Emergency / Info Phone No.	Phone: +91-22-40635600 • Fax: +91-22-40635601		
Email info@gandharoil.com			





DIVYOL THERM 600

Section 1: Identification of the Substance / Mixtur	e				
1.1 Product identifier					
Product name	ct name Divyol Therm 600				
Product description	Heat Transfer Fluid				
Product type	Industrial Oil				
MARPOL Annex-1	****				
1.2 Identified uses	1				
Distribution of substance	Industrial				
Formulation & (re)packing of substance & mixtures	Industrial				
Manufacture of substance	Industrial				
Functional fluids	Industrial				
Section 2: Hazard Identification					
4-Extreme	Health	1			
3-High	Flammability	1			
2-Moderate	Reactivity	0			
1-Slight	Special	-			
Section 3: Compostion / Information on Ingredier	its				
Product / Ingredient name	CAS No.: Not applicable for blended product. Distillates (Petroleum) mixture of hydro-treated hydrocarbons.				
Section 4: First Aid Measures	1				
Inhalation exposure	Remove to fresh air & provide oxyc	gen, if breathing is difficult. Contact physician			
Skin contact	Remove contaminated clothing. Flush skin with water. Wash skin thoroughly with mild soap & water. If irritation occurs, call a physician.				
Swallowing or other	Do not induce vomiting. In general no treatment is necessary unless large quantities are ingested. Get medical advice.				
Eye contact	Rinse continuously with water for several minutes. Get medical attention, if irritation persists.				
Protection first-aiders	Disconnecting electrical supply. Ensure adequate ventilation and check that a safe and breathing area is available before entry into confined spaces.				
Section 5: Fire Fighting Measures					
5.1 Extinguishing media					
Unsuitable extinguishing media	Lise dry powder foam carbon dioxide. Do not use direct water and wet chemicals or water on the				
5.2 Special hazards arising from the substance or mixtu	re				
Hazards from the substance or mixture	Flammable liquids in pressurised containers may rupture and when exposed to heat, creating a highly flammable vapour cloud.				
Hazardous thermal decomposition products	Incomplete combustion is likely to give rise to a complex mixture of airborne solid and liquid particulates, gases, including carbon monoxide, H_2S , SO_x (sulphur oxides) or sulphuric acid and unidentified organic and inorganic compounds.				
5.3 Advice for firefighters					
Special precautions for firefighters	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.				
Special protective equipment for firefighters	Firefighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face- piece operated in positive pressure mode. Clothing for firefighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.				





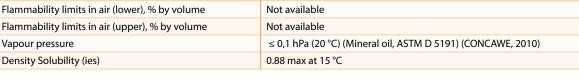
6.1 Personal precautions, protective equipment and emergency procedures					
For non-emergency personnel	Keep non-involved personnel away from the area of spillage. Alert emergency personnel. Except in case of small spillages, the feasibility of any actions should always be assessed and advised, if possible, by a trained, competent person in charge of managing the emergency. Stop leak if safe to do so. Avoid direct contact with the product. Stay upwind / keep distance from source. In case of large spillages, alert occupants in downwind areas. Eliminate all ignition sources if safe to do so. Spillages of limited amounts of product, especially in the open air when vapours will be usually quickly dispersed, are dynamic situations, which will presumably limit the exposure to dangerous concentrations. Note : Recommended measures are based on the most likely spillage scenarios for this material; however, local conditions (wind, air temperature, wave / current direction and speed) may significantly influence the choice of appropriate actions.				
For emergency responders	For this reason, local experts should be consulted when necessary. Local regulations may also prescribe or limit actions to be taken. Small spillages: Normal antistatic working clothes are usually adequate. Large spillages: Full body suit of chemically resistant and thermal resistant material should be used. Work gloves providing adequate chemical resistance, specifically to aromatic hydrocarbons. Note: Gloves made of PVA are not water-resistant, and are not suitable for emergency use. Safety helmet, antistatic non-skid safety shoes or boots. Goggles and / or face shield, if splashes or contact with eyes is possible or anticipated. Respiratory Protection : A half or full-face respirator with filter(s) for organic vapours (and when applicable for H ₂ S) a Self Contained Breathing Apparatus (SCBA) can be used according to the extent of spill and predictable amount of exposure. If the situation cannot be completely assessed, or if an oxygen deficiency is possible, only SCBA's should be used.				
6.2 Environmental precautions	Prevent product from entering sewers, rivers or other bodies of water. If necessary dike the product with dry earth, sand or similar non-combustible materials. In case of soil contamination, remove contaminated soil and treat in accordance with local regulations. In case of small spillages in closed waters (i.e. ports), contain product with floating barriers or other equipment. Collect spilled product by absorbing with specific floating absorbents. If possible, large spillages in open waters should be contained with floating barriers or other mechanical means. If this is not possible, control the spreading of the spillage, and collect the product by skimming or other suitable mechanical means. The use of dispersants should be advised by an expert, and, if required, approved by local authorities.				
6.3 Methods and material for containment and cleaning	up				
Small spill	Stop leak if without risk. Absorb spilled product with suitable non-combustible materials.				
Large spill	Large spillages may be cautiously covered with foam, if available, to limit vapour cloud formation. Do not use water jet. When inside buildings or confined spaces, ensure adequate ventilation. Transfer collected product and other contaminated materials to suitable containers for recovery or safe disposal.				
6.4 Reference to other sections	See Section 1: For emergency contact information. See Section 8: For information on appropriate personal protective equipment. See Section 13: For additional waste treatment information.				
Section 7: Handling and Storage					
7.1 Advice on general information – hygiene, storage	Obtain special instructions before use. Keep away from heat / sparks / open flames/hot surfaces. No smoking. Use and store only outdoors or in a well-ventilated area. Hazard of slipping on spilt product. Avoid release to the environment.				
7.2 Conditions for safe storage including any incompatibilities	Storage area layout, tank design, equipment and operating procedures must comply with the relevant regional, national or local legislation. Storage installations should be designed with adequate bunds in case of leaks or spills. Cleaning, inspection and maintenance of internal structure of storage tanks must be done only by properly equipped and qualified personnel as defined by national, local or company regulations. Store separately from oxidising agents. Keep only in the original container or in a suitable container for this kind of product. Keep container tightly closed and sealed until ready for use. Do not store in unlabelled containers. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Empty containers may contain harmful, flammable / combustible or explosive residue or vapours. Do not cut, grind, drill, weld, reuse or dispose of containers unless adequate precautions are taken against these hazards. Protect from sunlight.				
7.3 Specific end use(s) – Recommendations	Not available				



Density Solubility (ies)



Section 8: Exposure Controls / Personal Pro	
	onsulted for any available use-specific information provided in the Exposure Scenario(s).
8.1 Control parameters	
Occupational exposure limits	
Product / Ingredient name	Distillates, mixture of hydrocarbons
Exposure limits values	AFS 2015:7 (Sweden, 12/2015). TWA: 1 mg/m ³ 8 hours. Form: mist and fume STEL: 3 mg/m ³ 15 minutes. Form: mist and fume [Air contaminant]. AFS 2015:7 (Sweden, 12/2015). TWA: 1 mg/m ³ 8 hours. Form: mist and fume STEL: 3 mg/m ³ 15 minutes. Form: mist and fume.
Recommended monitoring procedures	If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres – Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres – Guide for the application and use of procedures for the assessment of exposure to chemical agents of exposure to chemical agents) European Standard EN 482 (Workplace atmospheres – Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres – General requirements for the performance of procedures for the measurement of chemical agents). Reference to national guidance documents for methods for the determination of hazardous substances will also be required.
8.2 Exposure control Appropriate engineering controls	Mechanical ventilation and local exhaust will reduce exposure via the air. Use oil resistant material in construction of handling equipment. Store under recommended conditions and if heated, temperature control equipment should be used to avoid overheating.
Individual protection measures	
Hygiene measures	Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Ensure that eyewash stations and safety showers are close to the workstation location. Wash contaminated clothing before reuse.
Eye / face protection	Recommended: Safety glasses with side shields.
Skin protection	
Hand protection	4 – 8 hours (breakthrough time): nitrile rubber.
Body protection	Wear protective clothing if there is a risk of skin contact. Change contaminated clothes at the end of working shift.
Other skin protection	Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary.
Environmental exposure control	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptab levels.
Section 9: Physical and Chemical Propertie	S
Appearance	Clear
Physical state	Liquid
Colour	Yellow
Odor	Petroleum odor
Odour threshold	Not available
рН	Not applicable
Pour point	< -15 °C (ASTM D 97)
Flash point	> 220 °C
Evaporation rate	Not available
Flammability (solid, gas)	Not available









Solubility (water)		Insoluble in water			
Partition coefficient (n-octanol/water)		Not available			
Decomposition temperature		No data			
Auto-ignition temperature		>300 °C			
Kinematic viscosity at 40 °C (104 °I	-)	35 cSt (ASTM D	445) (Typical Value)		
Explosive properties		No data			
Oxidising properties		No data			
DMSO extractable compounds for according to IP346	base oil substance(s)	Not available <3 %			
Section 10: Stability and Rea	ctivity				
10.1 Reactivity		No specific test	data related to reactivity availa	able for this product or its ingr	edients.
10.2 Chemical stability		Stable under no	ormal conditions		
10.3 Possibility of hazardous rea	ctions	Under normal c	conditions of storage and use, I	nazardous reactions will not o	ccur. Oxidising agent.
10.4 Conditions to avoid		Keep away from	n extreme heat and oxidising a	gents.	
10.5 Incompatible materials			nbustion is likely to give rise to ses, including carbon monoxic		
10.6 Hazardous decomposition	products		ganic and inorganic compound		
SECTION 11: Toxicological Int	formation				
11.1 Information on toxicologica					
Acute toxicity					
Product / ingredient name	Result		Species	Dose	Exposure
rioduct/ingredient name	LC 50 Inhalation dus	ts and mists	Rat	>2.18mg/l	4 hours
Distillate (Petroleum), hydro	LD 50 Dermal		Rabbit	> 5000 mg/kg	- 10013
treated heavy paraffinic	LD 50 Oral		Rat	>15000 mg/kg	
			nat	>15000 mg/kg	
Irritation / corrosion					
Skin					
Eye		No known significant effects or critical hazards.			
Respiratory					
Sensation					
Skin		No known significant effects or critical hazards.			
Respiratory					
Mutagenicity		No data available to indicate product or any components present greater than 0.1 % are multigene or genotoxic.			
Carcinogenicity		The base oil(s) i	n this product is based on an s	everely hydrotreated distillate	.
Reproductive toxicity		The product should not be regarded as a carcinogen. Contains no ingredient listed as toxic to reproduction.			
Specific target organ toxicity – sin	gle exposure				
Specific target organ toxicity – rep	• .	Not classified			
Aspiration hazard		Aspiration hazard – Category 1			
Information on likely routes of exp	oosure	Not available			
Potential acute health effects					
Eye contact		Eye contact ma	y cause redness and transient	pain.	
Inhalation		Inhalation of oil mist or vapours at elevated temperatures may cause respiratory irritation.			
Skin contact			ificant effects or critical hazard		
Ingestion		-	swallowed and enters airways.		
Potential chronic health effects		,	enter an nays		
General		No known sign	ificant effects or critical hazard	S.	
		The base oil(s) in this product is based on an severely hydrotreated distillate. The product should not be			
Carcinogenicity		regarded as a c			





Mutagenicity							
Teratogenicity							
Product / ingredient name		No known :	significant effects or critical haz	ards.			
Fertility effects							
Other information Specific hazard		Not availab	ام				
Section 12: Ecological Information		Not availab					
		Net over eat		1			
12.1 Toxicity			ed to be harmful to aquatic org	dillSillS.			
12.2 Persistence and degradability			ntly biodegradable.		u bilitu u ofi tibio unu o du ot		
12.3 Bioaccumulative potential			Bioaccumulation is unlikely to be significant because of the low water solubility of this product. Not considered mobile.				
12.4 Mobility in soil							
12.5 Results of PBT & vPvB assessment		Not applica		n water surfaces causing physic	al damage to expanience		
12.6 Other adverse effects			nsfer could also be impaired.	n water surfaces causing physic	al damage to organisms.		
Section 13: Disposal Consideration	าร						
The information in this section contains information provided in the Exposure Sc		d guidance. T	he list of Identified Uses in Sect	ion 1 should be consulted for ar	ny available use-specific		
Product Methods of disposal		Where possible (e.g. in the absence of relevant contamination), recycling of used substance is feasible and recommended. This substance can be burned or incinerated, subject to national/local authorisations, relevant contamination limits, safety regulations and air quality legislation. Contaminated or waste substance (not directly recyclable): Disposal can be carried out directly, or by delivery to qualified waste handlers. National legislation may identify a specific organisation, and/or prescribe composition limits and methods for recovery or disposal					
Hazardous waste		Yes					
European waste catalogue (EWC) Waste	Code 13 03 07*	Waste designation.					
Packaging		Mineral-based non-chlorinated insulating and heat transmission oils.					
Methods of disposal		The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.					
Section 14: Transport Information							
International transport regulations							
	ADR / R	ID	ADN	IMO / IMDG Classification	ICAO / IATA Classification		
14.1 UN number	Not regul	ated	Not regulated	Not regulated	Not regulated		
14.2 UN proper shipping name	_		_	_	_		
14.3 Transport hazard class(es)	_		_	_	_		
14.4 Packing group	_		_	_	_		
14.5 Environmental hazards	No		No	No	No		
Additional Information	_		_	_	_		
14.6 Special processions for user all							
14.6 Special precautions for user oils		72/70 and th	a IRC Codo				
14.7 Transport in bulk according to An		, 3/ / 6 and th					
Section 15: Regulatory Informatio		elation and '	fe for the cubeter of any hit	a Ell Dogulation (EC) No. 1007			
Annex XIV – List of substances subject to authorisation Annex XIV		islation specific for the substance or mixture EU Regulation (EC) No. 1907/2006 (REACH) None of the components are listed					
Substances of very high concern Annex XVII – Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles		Not applicable					
on the market and use of certain danger mixtures and articles.	ous substances,						
	ous substances,	Inventory I					
mixtures and articles.	ous substances,			res (AICS) – Yes			
mixtures and articles. International Lists National Inventory	ous substances,	Australian I Domestic S	name nventory of Chemical Substanc ubstances List (DSL) – Yes				
mixtures and articles. International Lists National Inventory Australia		Australian I Domestic S Non-Dome	name nventory of Chemical Substanc)			





_	European Inventory of Existing Commercial Chemical Substances (EINECS) – Yes		
Europe	European List of Notified Chemical Substances (ELINCS) – No		
Japan	Inventory of Existing and New Chemical Substances (ENCS) – Yes		
Korea	Existing Chemicals List (ECL) – Yes		
New Zealand	New Zealand Inventory – Yes		
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS) – Yes		
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory – Yes		
	oly with the inventory requirements administered by the governing country(s) uct are not listed or exempt from listing on the inventory administered by the governing country(s).		
Section 16: Other Information			
Revision comments			
Legend to abbreviations			
ADR	European agreement concerning the international carriage of dangerous good by road.		
RID	Regulations agreement concerning the international carriage of dangerous good by rail.		
IMDG Code	International Maritime Dangerous Goods Code.		
ICAO	International Civil Aviation Organization.		
IATA	International Air Transport Association.		
GHS	Globally Harmonized System of Classification and Labeling of Chemicals.		
CLP	Classification, Labelling and Packaging Regulation [Regulation (EC) No.1272/2008].		
SCBA	Self-Contained Breathing Apparatus.		
REACH	Registration, Evaluation, Authorization and Restriction of Chemicals Regulation [Regulation (EC) No. 1907/2006].		
LC 50	Median lethal concentration.		
LD 50	Median lethal dose.		
PBT	Persistent, Bio accumulative and Toxic.		

GANDHAR OIL REFINERY (INDIA) LTD.		
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Silvassa Plant	Plot No. 2, Survey No. 678/1/3, Village Naroli, Near Naroli Check Post, Silvassa, Dadra & Nagar Haveli, Union Territory 396230, India.	
Emergency / Info Phone No.	Phone: +91-22-40635600 • Fax: +91-22-40635601	
Email	info@gandharoil.com	





DIVYOL THERM 740

Section 1: Identification of the Substance / Mixtur	e					
1.1 Product identifier						
Product name	Divyol Therm 740					
Product description	Heat Transfer Fluid					
Product type	Industrial Oil					
MARPOL Annex-1	****					
1.2 Identified uses						
Distribution of substance	Industrial					
Formulation & (re)packing of substance & mixtures	Industrial					
Manufacture of substance	Industrial					
Functional fluids	Industrial					
Section 2: Hazard Identification						
4-Extreme	Health	1				
3-High	Flammability	1				
2-Moderate	Reactivity	0				
1-Slight	Special	-				
Section 3: Composition / Information on Ingredients						
Product / Ingredient name	CAS No.: Not applicable for blended product. Distillates (Petroleum) mixture of hydro-treated hydrocarbons.					
Section 4: First Aid Measures						
Inhalation exposure	Remove to fresh air & provide oxygen, if breathing is difficult. Contact physician					
Skin contact	Remove contaminated clothing. Flush skin with water. Wash skin thoroughly with mild soap & water. If irritation occurs, call a physician.					
Swallowing or other	Do not induce vomiting. In general no treatment is necessary unless large quantities are ingested. Get medical advice.					
Eye contact	Rinse continuously with water for several minutes. Get medical attention, if irritation persists.					
Protection first-aiders	Disconnecting electrical supply. Ensure adequate ventilation and check that a safe and breathing area is available before entry into confined spaces.					
Section 5: Fire Fighting Measures						
5.1 Extinguishing media						
Unsuitable extinguishing media	Use dry powder, foam, carbon dioxide. Do not use direct water and wet chemicals, or water on the burning product. They may spread the fire. Use foam simultaneously on the surface.					
5.2 Special hazards arising from the substance or mixtu	re					
Hazards from the substance or mixture	Flammable liquids in pressurised containers may rupture and when exposed to heat, creating a highly flammable vapour cloud.					
Hazardous thermal decomposition products	Incomplete combustion is likely to give rise to a complex mixture of airborne solid and liquid particulates, gases, including carbon monoxide, H_2S , SO_x (sulphur oxides) or sulphuric acid and unidentified organic and inorganic compounds.					
5.3 Advice for firefighters						
Special precautions for firefighters		oving all persons from the vicinity of the incident if there is a fire. No personal risk or without suitable training.				
Special protective equipment for firefighters	Firefighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face- piece operated in positive pressure mode. Clothing for firefighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.					





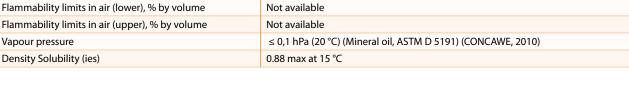
6.1 Personal precautions, protective equipment and emergency procedures				
For non-emergency personnel	Keep non-involved personnel away from the area of spillage. Alert emergency personnel. Except in case of small spillages, the feasibility of any actions should always be assessed and advised, if possible, by a trained, competent person in charge of managing the emergency. Stop leak if safe to do so. Avoid direct contact with the product. Stay upwind / keep distance from source. In case of large spillages, alert occupants in downwind areas. Eliminate all ignition sources if safe to do so. Spillages of limited amounts of product, especially in the open air when vapours will be usually quickly dispersed, are dynamic situations, which will presumably limit the exposure to dangerous concentrations. Note : Recommended measures are based on the most likely spillage scenarios for this material; however, local conditions (wind, air temperature, wave / current direction and speed) may significantly influence the choice of appropriate actions.			
For emergency responders	For this reason, local experts should be consulted when necessary. Local regulations may also prescribe or limit actions to be taken. Small spillages: Normal antistatic working clothes are usually adequate. Large spillages: Full body suit of chemically resistant and thermal resistant material should be used. Work gloves providing adequate chemical resistance, specifically to aromatic hydrocarbons. Note: Gloves made of PVA are not water-resistant, and are not suitable for emergency use. Safety helmet, antistatic non-skid safety shoes or boots. Goggles and / or face shield, if splashes or contact with eyes is possible or anticipated. Respiratory Protection : A half or full-face respirator with filter(s) for organic vapours (and when applicable for H ₂ S) a Self Contained Breathing Apparatus (SCBA) can be used according to the extent of spill and predictable amount of exposure. If the situation cannot be completely assessed, or if an oxygen deficiency is possible, only SCBA's should be used.			
6.2 Environmental precautions	Prevent product from entering sewers, rivers or other bodies of water. If necessary dike the product with dry earth, sand or similar non-combustible materials. In case of soil contamination, remove contaminated soil and treat in accordance with local regulations. In case of small spillages in closed waters (i.e. ports), contain product with floating barriers or other equipment. Collect spilled product by absorbing with specific floating absorbents. If possible, large spillages in open waters should be contained with floating barriers or other mechanical means. If this is not possible, control the spreading of the spillage, and collect the product by skimming or other suitable mechanical means. The use of dispersants should be advised by an expert, and, if required, approved by local authorities.			
6.3 Methods and material for containment and cleaning	up			
Small spill	Stop leak if without risk. Absorb spilled product with suitable non-combustible materials.			
Large spill	Large spillages may be cautiously covered with foam, if available, to limit vapour cloud formation. Do not use water jet. When inside buildings or confined spaces, ensure adequate ventilation. Transfer collected product and other contaminated materials to suitable containers for recovery or safe disposal.			
6.4 Reference to other sections	See Section 1: For emergency contact information. See Section 8: For information on appropriate personal protective equipment. See Section 13: For additional waste treatment information.			
Section 7: Handling and Storage				
7.1 Advice on general information – hygiene, storage	Obtain special instructions before use. Keep away from heat / sparks / open flames/hot surfaces. No smoking. Use and store only outdoors or in a well-ventilated area. Hazard of slipping on spilt product. Avoid release to the environment.			
7.2 Conditions for safe storage including any incompatibilities	Storage area layout, tank design, equipment and operating procedures must comply with the relevant regional, national or local legislation. Storage installations should be designed with adequate bunds in case of leaks or spills. Cleaning, inspection and maintenance of internal structure of storage tanks must be done only by properly equipped and qualified personnel as defined by national, local or company regulations. Store separately from oxidising agents. Keep only in the original container or in a suitable container for this kind of product. Keep container tightly closed and sealed until ready for use. Do not store in unlabelled containers. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Empty containers may contain harmful, flammable / combustible or explosive residue or vapours. Do not cut, grind, drill, weld, reuse or dispose of containers unless adequate precautions are taken against these hazards. Protect from sunlight.			
7.3 Specific end use(s) – Recommendations	Not available			



Density Solubility (ies)



Section 8: Exposure Controls / Personal Pro	otection
The list of Identified Uses in Section 1 should be co	onsulted for any available use-specific information provided in the Exposure Scenario(s).
8.1 Control parameters	
Occupational exposure limits	
Product / Ingredient name	Distillates, mixture of hydrocarbons
Exposure limits values	AFS 2015:7 (Sweden, 12/2015). TWA: 1 mg/m ³ 8 hours. Form: mist and fume STEL: 3 mg/m ³ 15 minutes. Form: mist and fume [Air contaminant]. AFS 2015:7 (Sweden, 12/2015). TWA: 1 mg/m ³ 8 hours. Form: mist and fume STEL: 3 mg/m ³ 15 minutes. Form: mist and fume.
Recommended monitoring procedures	If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres – Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres – Guide for the application and use of procedures for the assessment of exposure to chemical agents for comparison with limit values furopean Standard EN 14042 (Workplace atmospheres – Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres – General requirements for the performance of procedures for the measurement of chemical agents). Reference to national guidance documents for methods for the determination of hazardous substances will also be required.
8.2 Exposure control Appropriate engineering controls	Mechanical ventilation and local exhaust will reduce exposure via the air. Use oil resistant material in construction of handling equipment. Store under recommended conditions and if heated, temperature control equipment should be used to avoid overheating.
Individual protection measures	
Hygiene measures	Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Ensure that eyewash stations and safety showers are close to the workstation location. Wash contaminated clothing before reuse.
Eye / face protection	Recommended: Safety glasses with side shields.
Skin protection	
Hand protection	4 – 8 hours (breakthrough time): nitrile rubber.
Body protection	Wear protective clothing if there is a risk of skin contact. Change contaminated clothes at the end of working shift.
Other skin protection	Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	Respirator selection must be based on known or anticipated exposure levels, the hazards of the produc and the safe working limits of the selected respirator. Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary.
Environmental exposure control	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptab levels.
Section 9: Physical and Chemical Propertie	S
Appearance	Clear
Physical state	Liquid
Colour	Yellow
Odor	Petroleum odor
Odour threshold	Not available
pH	Not applicable
Pour point	< -12 °C (ASTM D 97)
Flash point	> 225 °C
Evaporation rate	Not available
Flammability (solid, gas)	Not available









Solubility (water)		Insoluble in wa	ter		
Partition coefficient (n-octanol/water)		Not available			
Decomposition temperature		No data			
Auto-ignition temperature		>300 °C			
Kinematic viscosity at 40 °C (104 °	F)	33 – 38 cSt (AST	FM D 445)		
Explosive properties		No data			
Oxidising properties		No data			
DMSO extractable compounds for according to IP346	r base oil substance(s)	Not available <3 %			
Section 10: Stability and Rea	ctivity				
10.1 Reactivity		No specific test	data related to reactivity availa	able for this product or its ingr	edients.
10.2 Chemical stability		Stable under no	ormal conditions		
10.3 Possibility of hazardous rea	octions	Under normal o	conditions of storage and use, I	nazardous reactions will not o	ccur. Oxidising agent.
10.4 Conditions to avoid		Keep away fron	n extreme heat and oxidising a	gents.	
10.5 Incompatible materials			nbustion is likely to give rise to ses, including carbon monoxic		
10.6 Hazardous decomposition	products		ganic and inorganic compound		
SECTION 11: Toxicological In	formation	· · · · · · · · · · · · · · · · · · ·			
11.1 Information on toxicologica					
Acute toxicity					
Product / ingredient name	Result		Species	Dose	Exposure
	LC 50 Inhalation due	sts and mists	Rat	>2.18mg/l	4 hours
Distillate (Petroleum), hydro	LD 50 Dermal		Rabbit	> 5000 mg/kg	-
treated heavy paraffinic	LD 50 Oral		Rat	>15000 mg/kg	_
Irritation / corrosion					
Skin					
Eye		No known significant effects or critical hazards.			
Respiratory					
Sensation					
Skin		No known significant effects or critical hazards.			
Respiratory					
Mutagenicity		No data available to indicate product or any components present greater than 0.1 % are multigene or genotoxic.			
Carcinogenicity		The base oil(s) i	The base oil(s) in this product is based on an severely hydrotreated distillate.		
Reproductive toxicity		The product should not be regarded as a carcinogen. Contains no ingredient listed as toxic to reproduction.			
Specific target organ toxicity – sin	gle exposure	Net dession!			
Specific target organ toxicity – rep	peated exposure	Not classified			
Aspiration hazard		Aspiration hazard – Category 1			
Information on likely routes of exposure		Not available			
Potential acute health effects					
Eye contact		Eye contact may cause redness and transient pain.			
Inhalation		Inhalation of oil mist or vapours at elevated temperatures may cause respiratory irritation.			
Skin contact		No known sign	ificant effects or critical hazard	s.	
Ingestion			wallowed and enters airways.		
Potential chronic health effects					
General		No known sign	ificant effects or critical hazard	S.	
Carcinogenicity		The base oil(s) in this product is based on an severely hydrotreated distillate. The product should not be regarded as a carcinogen.			





Mutagenicity							
Teratogenicity							
Product / ingredient name		No known :	significant effects or critical haz	ards.			
Fertility effects							
Other information Specific hazard		Not availab	ام				
Section 12: Ecological Information		Not availab					
		Net over eat		1			
12.1 Toxicity			ed to be harmful to aquatic org	dillSillS.			
12.2 Persistence and degradability			ntly biodegradable.		u bilitu u ofi tibio unu o du ot		
12.3 Bioaccumulative potential			Bioaccumulation is unlikely to be significant because of the low water solubility of this product. Not considered mobile.				
12.4 Mobility in soil							
12.5 Results of PBT & vPvB assessment		Not applica		n water surfaces causing physic	al damage to expanience		
12.6 Other adverse effects			nsfer could also be impaired.	n water surfaces causing physic	al damage to organisms.		
Section 13: Disposal Consideration	าร						
The information in this section contains information provided in the Exposure Sc		d guidance. T	he list of Identified Uses in Sect	ion 1 should be consulted for ar	ny available use-specific		
Product Methods of disposal		Where possible (e.g. in the absence of relevant contamination), recycling of used substance is feasible and recommended. This substance can be burned or incinerated, subject to national/local authorisations, relevant contamination limits, safety regulations and air quality legislation. Contaminated or waste substance (not directly recyclable): Disposal can be carried out directly, or by delivery to qualified waste handlers. National legislation may identify a specific organisation, and/or prescribe composition limits and methods for recovery or disposal					
Hazardous waste		Yes					
European waste catalogue (EWC) Waste	Code 13 03 07*	Waste designation.					
Packaging		Mineral-based non-chlorinated insulating and heat transmission oils.					
Methods of disposal		The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.					
Section 14: Transport Information							
International transport regulations							
	ADR / R	ID	ADN	IMO / IMDG Classification	ICAO / IATA Classification		
14.1 UN number	Not regul	ated	Not regulated	Not regulated	Not regulated		
14.2 UN proper shipping name	_		_	_	_		
14.3 Transport hazard class(es)	_		_	_	_		
14.4 Packing group	_		_	_	_		
14.5 Environmental hazards	No		No	No	No		
Additional Information	_		_	_	_		
14.6 Special processions for user all							
14.6 Special precautions for user oils		72/70 and th	a IRC Codo				
14.7 Transport in bulk according to An		, 3/ / 6 and th					
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Annex XIV – List of substances subject to authorisation Annex XIV		islation specific for the substance or mixture EU Regulation (EC) No. 1907/2006 (REACH) None of the components are listed					
Substances of very high concern Annex XVII – Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles		Not applicable					
on the market and use of certain danger mixtures and articles.	ous substances,						
	ous substances,	Inventory I					
mixtures and articles.	ous substances,			res (AICS) – Yes			
mixtures and articles. International Lists National Inventory	ous substances,	Australian I Domestic S	name nventory of Chemical Substanc ubstances List (DSL) – Yes				
mixtures and articles. International Lists National Inventory Australia		Australian I Domestic S Non-Dome	name nventory of Chemical Substanc)			





Former	European Inventory of Existing Commercial Chemical Substances (EINECS) – Yes		
Europe	European List of Notified Chemical Substances (ELINCS) – No		
Japan	Inventory of Existing and New Chemical Substances (ENCS) – Yes		
Korea	Existing Chemicals List (ECL) – Yes		
New Zealand	New Zealand Inventory – Yes		
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS) – Yes		
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory – Yes		
	oly with the inventory requirements administered by the governing country(s) uct are not listed or exempt from listing on the inventory administered by the governing country(s).		
Section 16: Other Information			
Revision comments			
Legend to abbreviations			
ADR	European agreement concerning the international carriage of dangerous good by road.		
RID	Regulations agreement concerning the international carriage of dangerous good by rail.		
IMDG Code	International Maritime Dangerous Goods Code.		
ICAO	International Civil Aviation Organization.		
IATA	International Air Transport Association.		
GHS	Globally Harmonized System of Classification and Labeling of Chemicals.		
CLP	Classification, Labelling and Packaging Regulation [Regulation (EC) No.1272/2008].		
SCBA	Self-Contained Breathing Apparatus.		
REACH	Registration, Evaluation, Authorization and Restriction of Chemicals Regulation [Regulation (EC) No. 1907/2006].		
LC 50	Median lethal concentration.		
LD 50	Median lethal dose.		
PBT	Persistent, Bio accumulative and Toxic.		

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Emergency / Info Phone No.	Phone: +91-22-40635600 • Fax: +91-22-40635601	
Email	info@gandharoil.com	





DIVYOL THERM T

Section 1: Identification of the Substance / Mixture					
1.1 Product identifier					
Product name	Divyol Therm T				
Product description	Heat Transfer Fluid				
Product type	Industrial Oil				
MARPOL Annex-1	****				
1.2 Identified uses	1				
Distribution of substance	Industrial				
Formulation & (re)packing of substance & mixtures	Industrial				
Manufacture of substance	Industrial				
Functional fluids	Industrial				
Section 2: Hazard Identification					
4-Extreme	Health	1			
3-High	Flammability	1			
2-Moderate	Reactivity	0			
1-Slight	Special	-			
Section 3: Compostion / Information on Ingredients					
Product / Ingredient name	CAS No.: Not applicable for blended product. Distillates (Petroleum) mixture of hydro-treated hydrocarbons.				
Section 4: First Aid Measures					
Inhalation exposure	Remove to fresh air & provide oxygen, if breathing is difficult. Contact physician				
Skin contact	Remove contaminated clothing. Flush skin with water. Wash skin thoroughly with mild soap & water. If irritation occurs, call a physician.				
Swallowing or other	Do not induce vomiting. In general no treatment is necessary unless large quantities are ingested. Get medical advice.				
Eye contact	Rinse continuously with water for several minutes. Get medical attention, if irritation persists.				
Protection first-aiders	Disconnecting electrical supply. Ensure adequate ventilation and check that a safe and breathing area is available before entry into confined spaces.				
Section 5: Fire Fighting Measures	·				
5.1 Extinguishing media					
Unsuitable extinguishing media	Use dry powder, foam, carbon dioxide. Do not use direct water and wet chemicals, or water on the burning product. They may spread the fire. Use foam simultaneously on the surface.				
5.2 Special hazards arising from the substance or mixtu	re				
Hazards from the substance or mixture	Flammable liquids in pressurised containers may rupture and when exposed to heat, creating a highly flammable vapour cloud.				
Hazardous thermal decomposition products	Incomplete combustion is likely to give rise to a complex mixture of airborne solid and liquid particulates, gases, including carbon monoxide, H ₂ S, SO _x (sulphur oxides) or sulphuric acid and unidentified organic and inorganic compounds.				
5.3 Advice for firefighters					
Special precautions for firefighters		oving all persons from the vicinity of the incident if there is a fire. No v personal risk or without suitable training.			
Special protective equipment for firefighters	(SCBA) with a full face- piece opera helmets, protective boots and glow	Firefighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face- piece operated in positive pressure mode. Clothing for firefighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.			





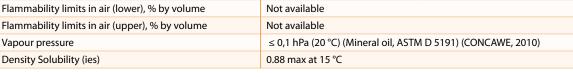
6.1 Personal precautions, protective equipment and emergency procedures				
For non-emergency personnel	Keep non-involved personnel away from the area of spillage. Alert emergency personnel. Except in case of small spillages, the feasibility of any actions should always be assessed and advised, if possible, by a trained, competent person in charge of managing the emergency. Stop leak if safe to do so. Avoid direct contact with the product. Stay upwind / keep distance from source. In case of large spillages, alert occupants in downwind areas. Eliminate all ignition sources if safe to do so. Spillages of limited amounts of product, especially in the open air when vapours will be usually quickly dispersed, are dynamic situations, which will presumably limit the exposure to dangerous concentrations. Note : Recommended measures are based on the most likely spillage scenarios for this material; however, local conditions (wind, air temperature, wave / current direction and speed) may significantly influence the choice of appropriate actions.			
For emergency responders	For this reason, local experts should be consulted when necessary. Local regulations may also prescribe or limit actions to be taken. Small spillages: Normal antistatic working clothes are usually adequate. Large spillages: Full body suit of chemically resistant and thermal resistant material should be used. Work gloves providing adequate chemical resistance, specifically to aromatic hydrocarbons. Note: Gloves made of PVA are not water-resistant, and are not suitable for emergency use. Safety helmet, antistatic non-skid safety shoes or boots. Goggles and / or face shield, if splashes or contact with eyes is possible or anticipated. Respiratory Protection : A half or full-face respirator with filter(s) for organic vapours (and when applicable for H ₂ S) a Self Contained Breathing Apparatus (SCBA) can be used according to the extent of spill and predictable amount of exposure. If the situation cannot be completely assessed, or if an oxygen deficiency is possible, only SCBA's should be used.			
6.2 Environmental precautions	Prevent product from entering sewers, rivers or other bodies of water. If necessary dike the product with dry earth, sand or similar non-combustible materials. In case of soil contamination, remove contaminated soil and treat in accordance with local regulations. In case of small spillages in closed waters (i.e. ports), contain product with floating barriers or other equipment. Collect spilled product by absorbing with specific floating absorbents. If possible, large spillages in open waters should be contained with floating barriers or other mechanical means. If this is not possible, control the spreading of the spillage, and collect the product by skimming or other suitable mechanical means. The use of dispersants should be advised by an expert, and, if required, approved by local authorities.			
6.3 Methods and material for containment and cleaning	up			
Small spill	Stop leak if without risk. Absorb spilled product with suitable non-combustible materials.			
Large spill	Large spillages may be cautiously covered with foam, if available, to limit vapour cloud formation. Do not use water jet. When inside buildings or confined spaces, ensure adequate ventilation. Transfer collected product and other contaminated materials to suitable containers for recovery or safe disposal.			
6.4 Reference to other sections	See Section 1: For emergency contact information. See Section 8: For information on appropriate personal protective equipment. See Section 13: For additional waste treatment information.			
Section 7: Handling and Storage				
7.1 Advice on general information – hygiene, storage	Obtain special instructions before use. Keep away from heat / sparks / open flames/hot surfaces. No smoking. Use and store only outdoors or in a well-ventilated area. Hazard of slipping on spilt product. Avoid release to the environment.			
7.2 Conditions for safe storage including any incompatibilities	Storage area layout, tank design, equipment and operating procedures must comply with the relevant regional, national or local legislation. Storage installations should be designed with adequate bunds in case of leaks or spills. Cleaning, inspection and maintenance of internal structure of storage tanks must be done only by properly equipped and qualified personnel as defined by national, local or company regulations. Store separately from oxidising agents. Keep only in the original container or in a suitable container for this kind of product. Keep container tightly closed and sealed until ready for use. Do not store in unlabelled containers. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Empty containers may contain harmful, flammable / combustible or explosive residue or vapours. Do not cut, grind, drill, weld, reuse or dispose of containers unless adequate precautions are taken against these hazards. Protect from sunlight.			
7.3 Specific end use(s) – Recommendations	Not available			



Density Solubility (ies)



Section 8: Exposure Controls / Personal Pro	ptection
The list of Identified Uses in Section 1 should be co	onsulted for any available use-specific information provided in the Exposure Scenario(s).
8.1 Control parameters	
Occupational exposure limits	
Product / Ingredient name	Distillates, mixture of hydrocarbons
Exposure limits values	AFS 2015:7 (Sweden, 12/2015). TWA: 1 mg/m ³ 8 hours. Form: mist and fume STEL: 3 mg/m ³ 15 minutes. Form: mist and fume [Air contaminant]. AFS 2015:7 (Sweden, 12/2015). TWA: 1 mg/m ³ 8 hours. Form: mist and fume STEL: 3 mg/m ³ 15 minutes. Form: mist and fume.
Recommended monitoring procedures	If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres – Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres – Guide for the application and use of procedures for the assessment of exposure to chemical agents for comparison with limit values for order and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres – Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres – Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres – General requirements for the performance of procedures for the measurement of chemical agents). Reference to national guidance documents for methods for the determination of hazardous substances will also be required.
8.2 Exposure control Appropriate engineering controls	Mechanical ventilation and local exhaust will reduce exposure via the air. Use oil resistant material in construction of handling equipment. Store under recommended conditions and if heated, temperature control equipment should be used to avoid overheating.
Individual protection measures	
Hygiene measures	Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Ensure that eyewash stations and safety showers are close to the workstation location. Wash contaminated clothing before reuse.
Eye / face protection	Recommended: Safety glasses with side shields.
Skin protection	
Hand protection	4 – 8 hours (breakthrough time): nitrile rubber.
Body protection	Wear protective clothing if there is a risk of skin contact. Change contaminated clothes at the end of working shift.
Other skin protection	Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	Respirator selection must be based on known or anticipated exposure levels, the hazards of the produc and the safe working limits of the selected respirator. Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary.
Environmental exposure control	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptab levels.
Section 9: Physical and Chemical Propertie	S
Appearance	Clear
Physical state	Liquid
Colour	Yellow
Odor	Petroleum odor
Odour threshold	Not available
pH	Not applicable
Pour point	< -12 °C (ASTM D 97)
Flash point	> 220 °C
Evaporation rate	Not available
Flammability (solid, gas)	Not available









Solubility (water)		Insoluble in water				
Partition coefficient (n-octanol/water)		Not available				
Decomposition temperature		No data				
Auto-ignition temperature		>300 °C				
Kinematic viscosity at 40 °C (104 °F)		30 cSt (ASTM D 445) (Typical Value)				
Explosive properties		No data				
Oxidising properties		No data				
DMSO extractable compounds for base oil substance(s) according to IP346		Not available <3 %				
Section 10: Stability and Rea	ctivity					
10.1 Reactivity		No specific test data related to reactivity available for this product or its ingredients.				
10.2 Chemical stability		Stable under normal conditions				
10.3 Possibility of hazardous rea	octions	Under normal conditions of storage and use, hazardous reactions will not occur. Oxidising agent.				
10.4 Conditions to avoid		Keep away from extreme heat and oxidising agents.				
10.5 Incompatible materials		Incomplete combustion is likely to give rise to a complex mixture of airborne solid and liquid particulates, gases, including carbon monoxide, H ₂ S, SO _x (sulphur oxides) or sulphuric acid and				
10.6 Hazardous decomposition	products	unidentified organic and inorganic compounds.				
SECTION 11: Toxicological In	formation					
11.1 Information on toxicologica	al effects					
Acute toxicity						
Product / ingredient name	Result		Species	Dose	Exposure	
	LC 50 Inhalation due	sts and mists	Rat	>2.18mg/l	4 hours	
Distillate (Petroleum), hydro	LD 50 Derr	nal	Rabbit	> 5000 mg/kg	_	
treated heavy paraffinic LD 50 Ora		al	Rat	>15000 mg/kg	_	
Irritation / corrosion						
Skin						
Eye			No known significant effects or critical hazards.			
Respiratory		no known significant encets of enaca hazards.				
Sensation						
Skin						
Respiratory		No known signi	ificant effects or critical hazard	S.		
Mutagenicity		No data available to indicate product or any components present greater than 0.1 % are multigene or genotoxic.				
Carcinogenicity			n this product is based on an s	everely hydrotreated distillate		
carcinogenicity			•			
Reproductive toxicity		The product should not be regarded as a carcinogen. Contains no ingredient listed as toxic to reproduction.				
Specific target organ toxicity – sin		Not classified				
	Specific target organ toxicity – repeated exposure					
Aspiration hazard		Aspiration hazard – Category 1				
Information on likely routes of exposure		Not available				
Potential acute health effects						
Eye contact		Eye contact may cause redness and transient pain.				
Inhalation		Inhalation of oil mist or vapours at elevated temperatures may cause respiratory irritation.				
Skin contact		No known significant effects or critical hazards.				
Ingestion		May be fatal if swallowed and enters airways.				
Potential chronic health effects						
General		No known significant effects or critical hazards.				
Carcinogenicity	Carcinogenicity		n this product is based on an s arcinogen.	everely hydrotreated distillate	. The product should not be	







Mutagenicity						
Teratogenicity						
Product / ingredient name Fertility effects		No known s	significant effects or critical haz	ards.		
Other information Specific hazard		Not availab				
Section 12: Ecological Information						
		Notovport	ad to be bermful to equatic are	anieme		
12.1 Toxicity		Not expected to be harmful to aquatic organisms.				
12.2 Persistence and degradability		Not inherently biodegradable.				
12.3 Bioaccumulative potential		Bioaccumulation is unlikely to be significant because of the low water solubility of this product.				
12.4 Mobility in soil		Not considered mobile.				
12.5 Results of PBT & vPvB assessment		Not applicable				
12.6 Other adverse effects		Insoluble in water. Spills may form a film on water surfaces causing physical damage to organisms. Oxygen transfer could also be impaired.				
Section 13: Disposal Consideration	าร					
The information in this section contains information provided in the Exposure Sc		l guidance. T	he list of Identified Uses in Sect	ion 1 should be consulted for ar	ny available use-specific	
Product Methods of disposal		Where possible (e.g. in the absence of relevant contamination), recycling of used substance is feasible and recommended. This substance can be burned or incinerated, subject to national/local authorisations, relevant contamination limits, safety regulations and air quality legislation. Contaminated or waste substance (not directly recyclable): Disposal can be carried out directly, or by delivery to qualified waste handlers. National legislation may identify a specific organisation, and/or prescribe composition limits and methods for recovery or disposal				
Hazardous waste		Yes				
European waste catalogue (EWC) Waste Code 13 03 07*		Waste designation.				
Packaging	Packaging		Mineral-based non-chlorinated insulating and heat transmission oils.			
Methods of disposal	Methods of disposal		The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.			
Section 14: Transport Information						
International transport regulations						
	ADR / R	ID	ADN	IMO / IMDG Classification	ICAO / IATA Classification	
14.1 UN number	Not regul	ated	Not regulated	Not regulated	Not regulated	
14.2 UN proper shipping name			_	_	-	
14.3 Transport hazard class(es)	_		_	_	_	
14.4 Packing group	_		_	_	_	
14.5 Environmental hazards	No		No	No	No	
Additional Information	_		_	_	_	
14.6 Special precautions for user oils		12/70 cm-1 cl				
14.7 Transport in bulk according to An		5/78 and th				
Section 15: Regulatory Informatio			Ge familie and at			
15.1 Safety, health and environmental		siation speci	nc for the substance or mixtur	e EU Regulation (EC) No. 1907/	2006 (REACH)	
Annex XIV – List of substances subject to authorisation Annex XIV Substances of very high concern		None of the components are listed				
Annex XVII – Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles.		Not applicable				
International Lists National Inventory		Inventory name				
Australia		Australian Inventory of Chemical Substances (AICS) – Yes				
Canada		Domestic Substances List (DSL) – Yes Non-Domestic Substances List (NDSL) – No				
China		Inventory of Existing Chemical Substances in China (IECSC) – Yes				
China		inventory o	Existing Chemical Substances	in chilla (iecsc) – řes		







_	European Inventory of Existing Commercial Chemical Substances (EINECS) – Yes		
Europe	European List of Notified Chemical Substances (ELINCS) – No		
Japan	Inventory of Existing and New Chemical Substances (ENCS) – Yes		
Korea	Existing Chemicals List (ECL) – Yes		
New Zealand	New Zealand Inventory – Yes		
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS) – Yes		
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory – Yes		
	ply with the inventory requirements administered by the governing country(s) uct are not listed or exempt from listing on the inventory administered by the governing country(s).		
Section 16: Other Information			
Revision comments			
Legend to abbreviations			
ADR	European agreement concerning the international carriage of dangerous good by road.		
RID	Regulations agreement concerning the international carriage of dangerous good by rail.		
IMDG Code	International Maritime Dangerous Goods Code.		
ICAO	International Civil Aviation Organization.		
IATA	International Air Transport Association.		
GHS	Globally Harmonized System of Classification and Labeling of Chemicals.		
CLP	Classification, Labelling and Packaging Regulation [Regulation (EC) No.1272/2008].		
SCBA	Self-Contained Breathing Apparatus.		
REACH	Registration, Evaluation, Authorization and Restriction of Chemicals Regulation [Regulation (EC) No. 1907/2006].		
LC 50	Median lethal concentration.		
LD 50	Median lethal dose.		
РВТ	Persistent, Bio accumulative and Toxic.		

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ISO 9001:2015, ISO 14001:2015, ISO 45001:2018, GMP Certified, NABL Accreditation and Government Recognized Three Start Export House

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