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Metal Drawing Compounds

Industrial Oils

divyol
solutions within solutions

CONTENTS

DIVYOL SUGAR LUB 20

Section 1: Identification of the Substance / Mixture		
1.1 Product identifier		
Product name	Divyol Sugar LUB 20	
Product description	Sugar Mill Bearing Lubricant	
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: 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 mixture		
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.	

Section 6: Accidental Release Measures	
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_2S) 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 Protection	
The list of Identified Uses in Section 1 should be consulted 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 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 acceptable levels.
Section 9: Physical and Chemical Properties	
Appearance	Clear
Physical state	Liquid
Colour	Black
Odor	Petroleum odor
Odour threshold	Not available
pH	Not applicable
Pour point	< -3 °C (ASTM D 97)
Flash point	> 200 °C
Evaporation rate	Not available
Flammability (solid, gas)	Not available
Flammability limits in air (lower), % by volume	Not available
Flammability limits in air (upper), % by volume	Not available
Vapour pressure	≤ 0,1 hPa (20 °C) (Mineral oil, ASTM D 5191) (CONCAWE, 2010)
Density Solubility (ies)	1.000 max at 15 °C

Solubility (water)	Insoluble in water
Partition coefficient (n-octanol/water)	Not available
Decomposition temperature	No data
Auto-ignition temperature	>300 °C
Kinematic viscosity at 100 °C (210 °F)	38 – 49 cSt (ASTM D 445)
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 Reactivity

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 reactions	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_2S, SO_x (sulphur oxides) or sulphuric acid and unidentified organic and inorganic compounds.
10.6 Hazardous decomposition products	

SECTION 11: Toxicological Information

11.1 Information on toxicological effects

Acute toxicity

Product / ingredient name	Result	Species	Dose	Exposure
Distillate (Petroleum), hydro treated heavy paraffinic	LC 50 Inhalation dusts and mists	Rat	>2.18mg/l	4 hours
	LD 50 Dermal	Rabbit	> 5000 mg/kg	–
	LD 50 Oral	Rat	>15000 mg/kg	–

Irritation / corrosion	
Skin	No known significant effects or critical hazards.
Eye	
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) 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 – single exposure	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	The base oil(s) in this product is based on an severely hydrotreated distillate. The product should not be regarded as a carcinogen.

Mutagenicity	No known significant effects or critical hazards.
Teratogenicity	
Product / ingredient name	
Fertility effects	
Other information Specific hazard	Not available

Section 12: Ecological Information

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 Considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

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 / RID	ADN	IMO / IMDG Classification	ICAO / IATA Classification
14.1 UN number	Not regulated	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 Annex I of MARPOL 73/78 and the IBC Code

Section 15: Regulatory Information

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

Europe	European Inventory of Existing Commercial Chemical Substances (EINECS) – Yes
	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
*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s) A "No" indicates that one or more components of the product 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.

Regulation (EC) no 1907/2006, Annex II as Amended by Commission Regulation (EU) 2015/830

Disclaimer: Information contained in this material data sheet is believed to be reliable, but no representation, guarantee or warranties of any kind made as to its accuracy, suitability for a particular application or results to be obtained from them. It is up to the manufacturer / seller to ensure that the information content in the material data sheet is relevant to the product manufactured / handled or sold by, as the case may be. GANDHAR makes no warranties expressed or implied in respect of the adequacy of this document for any particular purpose.

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DIVYOL SUGAR LUB 20L

Section 1: Identification of the Substance / Mixture		
1.1 Product identifier		
Product name	Divyol Sugar LUB 20L	
Product description	Sugar Mill Bearing Lubricant	
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: 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 mixture		
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.	

Section 6: Accidental Release Measures	
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_2S) 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 Protection	
The list of Identified Uses in Section 1 should be consulted 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 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 acceptable levels.
Section 9: Physical and Chemical Properties	
Appearance	Clear
Physical state	Liquid
Colour	Black
Odor	Petroleum odor
Odour threshold	Not available
pH	Not applicable
Pour point	< -3 °C (ASTM D 97)
Flash point	> 200 °C
Evaporation rate	Not available
Flammability (solid, gas)	Not available
Flammability limits in air (lower), % by volume	Not available
Flammability limits in air (upper), % by volume	Not available
Vapour pressure	≤ 0,1 hPa (20 °C) (Mineral oil, ASTM D 5191) (CONCAWE, 2010)
Density Solubility (ies)	1.000 max at 15 °C

Solubility (water)	Insoluble in water
Partition coefficient (n-octanol/water)	Not available
Decomposition temperature	No data
Auto-ignition temperature	>300 °C
Kinematic viscosity at 100 °C (210 °F)	32 – 43 cSt (ASTM D 445)
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 Reactivity

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 reactions	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_2S, SO_x (sulphur oxides) or sulphuric acid and unidentified organic and inorganic compounds.
10.6 Hazardous decomposition products	

SECTION 11: Toxicological Information

11.1 Information on toxicological effects

Acute toxicity

Product / ingredient name	Result	Species	Dose	Exposure
Distillate (Petroleum), hydro treated heavy paraffinic	LC 50 Inhalation dusts and mists	Rat	>2.18mg/l	4 hours
	LD 50 Dermal	Rabbit	> 5000 mg/kg	–
	LD 50 Oral	Rat	>15000 mg/kg	–

Irritation / corrosion	
Skin	No known significant effects or critical hazards.
Eye	
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) 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 – single exposure	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	The base oil(s) in this product is based on an severely hydrotreated distillate. The product should not be regarded as a carcinogen.

Mutagenicity	No known significant effects or critical hazards.
Teratogenicity	
Product / ingredient name	
Fertility effects	
Other information Specific hazard	Not available

Section 12: Ecological Information

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 Considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

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 / RID	ADN	IMO / IMDG Classification	ICAO / IATA Classification
14.1 UN number	Not regulated	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 Annex I of MARPOL 73/78 and the IBC Code

Section 15: Regulatory Information

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

Europe	European Inventory of Existing Commercial Chemical Substances (EINECS) – Yes
	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
*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s) A "No" indicates that one or more components of the product 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.

Regulation (EC) no 1907/2006, Annex II as Amended by Commission Regulation (EU) 2015/830

Disclaimer: Information contained in this material data sheet is believed to be reliable, but no representation, guarantee or warranties of any kind made as to its accuracy, suitability for a particular application or results to be obtained from them. It is up to the manufacturer / seller to ensure that the information content in the material data sheet is relevant to the product manufactured / handled or sold by, as the case may be. GANDHAR makes no warranties expressed or implied in respect of the adequacy of this document for any particular purpose.

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DIVYOL SUGAR LUB 30

Section 1: Identification of the Substance / Mixture		
1.1 Product identifier		
Product name	Divyol Sugar LUB 30	
Product description	Sugar Mill Bearing Lubricant	
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: 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 mixture		
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.	

Section 6: Accidental Release Measures	
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_2S) 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 Protection	
The list of Identified Uses in Section 1 should be consulted 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 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 acceptable levels.
Section 9: Physical and Chemical Properties	
Appearance	Clear
Physical state	Liquid
Colour	Black
Odor	Petroleum odor
Odour threshold	Not available
pH	Not applicable
Pour point	< -3 °C (ASTM D 97)
Flash point	> 200 °C
Evaporation rate	Not available
Flammability (solid, gas)	Not available
Flammability limits in air (lower), % by volume	Not available
Flammability limits in air (upper), % by volume	Not available
Vapour pressure	≤ 0,1 hPa (20 °C) (Mineral oil, ASTM D 5191) (CONCAWE, 2010)
Density Solubility (ies)	1.000 max at 15 °C

Solubility (water)	Insoluble in water
Partition coefficient (n-octanol/water)	Not available
Decomposition temperature	No data
Auto-ignition temperature	>300 °C
Kinematic viscosity at 100 °C (210 °F)	60 – 70 cSt (ASTM D 445)
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 Reactivity

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 reactions	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_2S, SO_x (sulphur oxides) or sulphuric acid and unidentified organic and inorganic compounds.
10.6 Hazardous decomposition products	

SECTION 11: Toxicological Information

11.1 Information on toxicological effects

Acute toxicity

Product / ingredient name	Result	Species	Dose	Exposure
Distillate (Petroleum), hydro treated heavy paraffinic	LC 50 Inhalation dusts and mists	Rat	>2.18mg/l	4 hours
	LD 50 Dermal	Rabbit	> 5000 mg/kg	–
	LD 50 Oral	Rat	>15000 mg/kg	–

Irritation / corrosion	
Skin	No known significant effects or critical hazards.
Eye	
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) 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 – single exposure	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	The base oil(s) in this product is based on an severely hydrotreated distillate. The product should not be regarded as a carcinogen.

Mutagenicity	No known significant effects or critical hazards.
Teratogenicity	
Product / ingredient name	
Fertility effects	
Other information Specific hazard	Not available

Section 12: Ecological Information

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 Considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

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 / RID	ADN	IMO / IMDG Classification	ICAO / IATA Classification
14.1 UN number	Not regulated	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 Annex I of MARPOL 73/78 and the IBC Code

Section 15: Regulatory Information

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

Europe	European Inventory of Existing Commercial Chemical Substances (EINECS) – Yes
	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
*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s) A "No" indicates that one or more components of the product 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.

Regulation (EC) no 1907/2006, Annex II as Amended by Commission Regulation (EU) 2015/830

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

DIVYOL SUGAR LUB 40

Section 1: Identification of the Substance / Mixture		
1.1 Product identifier		
Product name	Divyol Sugar LUB 40	
Product description	Sugar Mill Bearing Lubricant	
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: 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 mixture		
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.	

Section 6: Accidental Release Measures	
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_2S) 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 Protection	
The list of Identified Uses in Section 1 should be consulted 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 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 acceptable levels.
Section 9: Physical and Chemical Properties	
Appearance	Clear
Physical state	Liquid
Colour	Black
Odor	Petroleum odor
Odour threshold	Not available
pH	Not applicable
Pour point	< -3 °C (ASTM D 97)
Flash point	> 200 °C
Evaporation rate	Not available
Flammability (solid, gas)	Not available
Flammability limits in air (lower), % by volume	Not available
Flammability limits in air (upper), % by volume	Not available
Vapour pressure	≤ 0,1 hPa (20 °C) (Mineral oil, ASTM D 5191) (CONCAWE, 2010)
Density Solubility (ies)	1.000 max at 15 °C

Solubility (water)	Insoluble in water
Partition coefficient (n-octanol/water)	Not available
Decomposition temperature	No data
Auto-ignition temperature	>300 °C
Kinematic viscosity at 100 °C (210 °F)	78 – 90 cSt (ASTM D 445)
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 Reactivity

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 reactions	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_2S, SO_x (sulphur oxides) or sulphuric acid and unidentified organic and inorganic compounds.
10.6 Hazardous decomposition products	

SECTION 11: Toxicological Information

11.1 Information on toxicological effects

Acute toxicity

Product / ingredient name	Result	Species	Dose	Exposure
Distillate (Petroleum), hydro treated heavy paraffinic	LC 50 Inhalation dusts and mists	Rat	>2.18mg/l	4 hours
	LD 50 Dermal	Rabbit	> 5000 mg/kg	–
	LD 50 Oral	Rat	>15000 mg/kg	–

Irritation / corrosion	
Skin	No known significant effects or critical hazards.
Eye	
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) 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 – single exposure	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	The base oil(s) in this product is based on an severely hydrotreated distillate. The product should not be regarded as a carcinogen.

Mutagenicity	No known significant effects or critical hazards.
Teratogenicity	
Product / ingredient name	
Fertility effects	
Other information Specific hazard	Not available

Section 12: Ecological Information

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 Considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

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 / RID	ADN	IMO / IMDG Classification	ICAO / IATA Classification
14.1 UN number	Not regulated	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 Annex I of MARPOL 73/78 and the IBC Code

Section 15: Regulatory Information

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

Europe	European Inventory of Existing Commercial Chemical Substances (EINECS) – Yes
	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
*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s) A "No" indicates that one or more components of the product 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.

Regulation (EC) no 1907/2006, Annex II as Amended by Commission Regulation (EU) 2015/830

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Email	info@gandharoil.com

DIVYOL SUGAR LUB 60

Section 1: Identification of the Substance / Mixture		
1.1 Product identifier		
Product name	Divyol Sugar LUB 60	
Product description	Sugar Mill Bearing Lubricant	
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: 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 mixture		
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.	

Section 6: Accidental Release Measures	
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_2S) 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 Protection	
The list of Identified Uses in Section 1 should be consulted 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 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 acceptable levels.
Section 9: Physical and Chemical Properties	
Appearance	Clear
Physical state	Liquid
Colour	Black
Odor	Petroleum odor
Odour threshold	Not available
pH	Not applicable
Pour point	< -3 °C (ASTM D 97)
Flash point	> 200 °C
Evaporation rate	Not available
Flammability (solid, gas)	Not available
Flammability limits in air (lower), % by volume	Not available
Flammability limits in air (upper), % by volume	Not available
Vapour pressure	≤ 0,1 hPa (20 °C) (Mineral oil, ASTM D 5191) (CONCAWE, 2010)
Density Solubility (ies)	1.000 max at 15 °C

Solubility (water)	Insoluble in water
Partition coefficient (n-octanol/water)	Not available
Decomposition temperature	No data
Auto-ignition temperature	>300 °C
Kinematic viscosity at 100 °C (210 °F)	120 – 130 cSt (ASTM D 445)
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 Reactivity

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 reactions	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_2S, SO_x (sulphur oxides) or sulphuric acid and unidentified organic and inorganic compounds.
10.6 Hazardous decomposition products	

SECTION 11: Toxicological Information

11.1 Information on toxicological effects

Acute toxicity

Product / ingredient name	Result	Species	Dose	Exposure
Distillate (Petroleum), hydro treated heavy paraffinic	LC 50 Inhalation dusts and mists	Rat	>2.18mg/l	4 hours
	LD 50 Dermal	Rabbit	> 5000 mg/kg	–
	LD 50 Oral	Rat	>15000 mg/kg	–

Irritation / corrosion	
Skin	No known significant effects or critical hazards.
Eye	
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) 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 – single exposure	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	The base oil(s) in this product is based on an severely hydrotreated distillate. The product should not be regarded as a carcinogen.

Mutagenicity	No known significant effects or critical hazards.
Teratogenicity	
Product / ingredient name	
Fertility effects	
Other information Specific hazard	Not available

Section 12: Ecological Information

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 Considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

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 / RID	ADN	IMO / IMDG Classification	ICAO / IATA Classification
14.1 UN number	Not regulated	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 Annex I of MARPOL 73/78 and the IBC Code

Section 15: Regulatory Information

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

Europe	European Inventory of Existing Commercial Chemical Substances (EINECS) – Yes
	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
*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s) A "No" indicates that one or more components of the product 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.

Regulation (EC) no 1907/2006, Annex II as Amended by Commission Regulation (EU) 2015/830

Disclaimer: Information contained in this material data sheet is believed to be reliable, but no representation, guarantee or warranties of any kind made as to its accuracy, suitability for a particular application or results to be obtained from them. It is up to the manufacturer / seller to ensure that the information content in the material data sheet is relevant to the product manufactured / handled or sold by, as the case may be. GANDHAR makes no warranties expressed or implied in respect of the adequacy of this document for any particular purpose.

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DIVYOL SUGAR LUB 81

Section 1: Identification of the Substance / Mixture		
1.1 Product identifier		
Product name	Divyol Sugar LUB 81	
Product description	Stainless Steel Tube Drawing Oil	
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: 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 mixture		
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.	

Section 6: Accidental Release Measures	
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_2S) 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 Protection	
The list of Identified Uses in Section 1 should be consulted 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 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 acceptable levels.
Section 9: Physical and Chemical Properties	
Appearance	Clear
Physical state	Liquid
Colour	Yellow
Odor	Petroleum odor
Odour threshold	Not available
pH	Not applicable
Pour point	< -3 °C (ASTM D 97)
Flash point	> 210 °C
Evaporation rate	Not available
Flammability (solid, gas)	Not available
Flammability limits in air (lower), % by volume	Not available
Flammability limits in air (upper), % by volume	Not available
Vapour pressure	≤ 0,1 hPa (20 °C) (Mineral oil, ASTM D 5191) (CONCAWE, 2010)
Density Solubility (ies)	0.88 max at 15 °C

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)	158 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 Reactivity

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 reactions	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_2S, SO_x (sulphur oxides) or sulphuric acid and unidentified organic and inorganic compounds.
10.6 Hazardous decomposition products	

SECTION 11: Toxicological Information

11.1 Information on toxicological effects

Acute toxicity

Product / ingredient name	Result	Species	Dose	Exposure
Distillate (Petroleum), hydro treated heavy paraffinic	LC 50 Inhalation dusts and mists	Rat	>2.18mg/l	4 hours
	LD 50 Dermal	Rabbit	> 5000 mg/kg	–
	LD 50 Oral	Rat	>15000 mg/kg	–

Irritation / corrosion	
Skin	No known significant effects or critical hazards.
Eye	
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) 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 – single exposure	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	The base oil(s) in this product is based on an severely hydrotreated distillate. The product should not be regarded as a carcinogen.

Mutagenicity	No known significant effects or critical hazards.
Teratogenicity	
Product / ingredient name	
Fertility effects	
Other information Specific hazard	Not available

Section 12: Ecological Information

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 Considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

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 / RID	ADN	IMO / IMDG Classification	ICAO / IATA Classification
14.1 UN number	Not regulated	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 Annex I of MARPOL 73/78 and the IBC Code

Section 15: Regulatory Information

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

Europe	European Inventory of Existing Commercial Chemical Substances (EINECS) – Yes
	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
*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s) A "No" indicates that one or more components of the product 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.

Regulation (EC) no 1907/2006, Annex II as Amended by Commission Regulation (EU) 2015/830

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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 SUGAR LUB 82

Section 1: Identification of the Substance / Mixture		
1.1 Product identifier		
Product name	Divyol Sugar LUB 82	
Product description	Stainless Steel Tube Drawing Oil	
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: 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 mixture		
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.	

Section 6: Accidental Release Measures	
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_2S) 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 Protection	
The list of Identified Uses in Section 1 should be consulted 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 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 acceptable levels.
Section 9: Physical and Chemical Properties	
Appearance	Clear
Physical state	Liquid
Colour	Yellow
Odor	Petroleum odor
Odour threshold	Not available
pH	Not applicable
Pour point	< -3 °C (ASTM D 97)
Flash point	> 200 °C
Evaporation rate	Not available
Flammability (solid, gas)	Not available
Flammability limits in air (lower), % by volume	Not available
Flammability limits in air (upper), % by volume	Not available
Vapour pressure	≤ 0,1 hPa (20 °C) (Mineral oil, ASTM D 5191) (CONCAWE, 2010)
Density Solubility (ies)	0.88 max at 15 °C

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)	295 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 Reactivity

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 reactions	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_2S, SO_x (sulphur oxides) or sulphuric acid and unidentified organic and inorganic compounds.
10.6 Hazardous decomposition products	

SECTION 11: Toxicological Information

11.1 Information on toxicological effects

Acute toxicity

Product / ingredient name	Result	Species	Dose	Exposure
Distillate (Petroleum), hydro treated heavy paraffinic	LC 50 Inhalation dusts and mists	Rat	>2.18mg/l	4 hours
	LD 50 Dermal	Rabbit	> 5000 mg/kg	–
	LD 50 Oral	Rat	>15000 mg/kg	–

Irritation / corrosion	
Skin	No known significant effects or critical hazards.
Eye	
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) 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 – single exposure	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	The base oil(s) in this product is based on an severely hydrotreated distillate. The product should not be regarded as a carcinogen.

Mutagenicity	No known significant effects or critical hazards.
Teratogenicity	
Product / ingredient name	
Fertility effects	
Other information Specific hazard	Not available

Section 12: Ecological Information

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 Considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

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 / RID	ADN	IMO / IMDG Classification	ICAO / IATA Classification
14.1 UN number	Not regulated	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 Annex I of MARPOL 73/78 and the IBC Code

Section 15: Regulatory Information

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

Europe	European Inventory of Existing Commercial Chemical Substances (EINECS) – Yes
	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
*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s) A "No" indicates that one or more components of the product 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.

Regulation (EC) no 1907/2006, Annex II as Amended by Commission Regulation (EU) 2015/830

Disclaimer: Information contained in this material data sheet is believed to be reliable, but no representation, guarantee or warranties of any kind made as to its accuracy, suitability for a particular application or results to be obtained from them. It is up to the manufacturer / seller to ensure that the information content in the material data sheet is relevant to the product manufactured / handled or sold by, as the case may be. GANDHAR makes no warranties expressed or implied in respect of the adequacy of this document for any particular purpose.

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DIVYOL WIRE DRAW 105

Section 1: Identification of the Substance / Mixture		
1.1 Product identifier		
Product name	Divyol Wire DRAW 105	
Product description	Metal Drawing Compound	
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: 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 mixture		
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.	

Section 6: Accidental Release Measures	
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_2S) 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 Protection	
The list of Identified Uses in Section 1 should be consulted 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 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 acceptable levels.
Section 9: Physical and Chemical Properties	
Appearance	Clear
Physical state	Liquid
Colour	Yellow
Odor	Petroleum odor
Odour threshold	Not available
pH	Not applicable
Pour point	< -36 °C (ASTM D 97)
Flash point	> 210 °C
Evaporation rate	Not available
Flammability (solid, gas)	Not available
Flammability limits in air (lower), % by volume	Not available
Flammability limits in air (upper), % by volume	Not available
Vapour pressure	≤ 0,1 hPa (20 °C) (Mineral oil, ASTM D 5191) (CONCAWE, 2010)
Density Solubility (ies)	0.88 max at 15 °C

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)	200 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 Reactivity

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 reactions	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_2S, SO_x (sulphur oxides) or sulphuric acid and unidentified organic and inorganic compounds.
10.6 Hazardous decomposition products	

SECTION 11: Toxicological Information

11.1 Information on toxicological effects

Acute toxicity

Product / ingredient name	Result	Species	Dose	Exposure
Distillate (Petroleum), hydro treated heavy paraffinic	LC 50 Inhalation dusts and mists	Rat	>2.18mg/l	4 hours
	LD 50 Dermal	Rabbit	> 5000 mg/kg	–
	LD 50 Oral	Rat	>15000 mg/kg	–

Irritation / corrosion	
Skin	No known significant effects or critical hazards.
Eye	
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) 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 – single exposure	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	The base oil(s) in this product is based on an severely hydrotreated distillate. The product should not be regarded as a carcinogen.

Mutagenicity	No known significant effects or critical hazards.
Teratogenicity	
Product / ingredient name	
Fertility effects	
Other information Specific hazard	Not available

Section 12: Ecological Information

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 Considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

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 / RID	ADN	IMO / IMDG Classification	ICAO / IATA Classification
14.1 UN number	Not regulated	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 Annex I of MARPOL 73/78 and the IBC Code

Section 15: Regulatory Information

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

Europe	European Inventory of Existing Commercial Chemical Substances (EINECS) – Yes
	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
*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s) A "No" indicates that one or more components of the product 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.

Regulation (EC) no 1907/2006, Annex II as Amended by Commission Regulation (EU) 2015/830

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Emergency / Info Phone No.	Phone: +91-22-40635600 • Fax: +91-22-40635601
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DIVYOL WIRE DRAW 107

Section 1: Identification of the Substance / Mixture		
1.1 Product identifier		
Product name	Divyol Wire DRAW 107	
Product description	Metal Drawing Compound	
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: 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 mixture		
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.	

Section 6: Accidental Release Measures	
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_2S) 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 Protection	
The list of Identified Uses in Section 1 should be consulted 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 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 acceptable levels.
Section 9: Physical and Chemical Properties	
Appearance	Clear
Physical state	Liquid
Colour	Yellow
Odor	Petroleum odor
Odour threshold	Not available
pH	Not applicable
Pour point	< -36 °C (ASTM D 97)
Flash point	> 210 °C
Evaporation rate	Not available
Flammability (solid, gas)	Not available
Flammability limits in air (lower), % by volume	Not available
Flammability limits in air (upper), % by volume	Not available
Vapour pressure	≤ 0,1 hPa (20 °C) (Mineral oil, ASTM D 5191) (CONCAWE, 2010)
Density Solubility (ies)	0.88 max at 15 °C

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)	300 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 Reactivity

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 reactions	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_2S, SO_x (sulphur oxides) or sulphuric acid and unidentified organic and inorganic compounds.
10.6 Hazardous decomposition products	

SECTION 11: Toxicological Information

11.1 Information on toxicological effects

Acute toxicity

Product / ingredient name	Result	Species	Dose	Exposure
Distillate (Petroleum), hydro treated heavy paraffinic	LC 50 Inhalation dusts and mists	Rat	>2.18mg/l	4 hours
	LD 50 Dermal	Rabbit	> 5000 mg/kg	–
	LD 50 Oral	Rat	>15000 mg/kg	–

Irritation / corrosion	
Skin	No known significant effects or critical hazards.
Eye	
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) 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 – single exposure	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	The base oil(s) in this product is based on an severely hydrotreated distillate. The product should not be regarded as a carcinogen.

Mutagenicity	No known significant effects or critical hazards.
Teratogenicity	
Product / ingredient name	
Fertility effects	
Other information Specific hazard	Not available

Section 12: Ecological Information

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 Considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

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 / RID	ADN	IMO / IMDG Classification	ICAO / IATA Classification
14.1 UN number	Not regulated	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 Annex I of MARPOL 73/78 and the IBC Code

Section 15: Regulatory Information

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

Europe	European Inventory of Existing Commercial Chemical Substances (EINECS) – Yes
	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
*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s) A "No" indicates that one or more components of the product 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.

Regulation (EC) no 1907/2006, Annex II as Amended by Commission Regulation (EU) 2015/830

Disclaimer: Information contained in this material data sheet is believed to be reliable, but no representation, guarantee or warranties of any kind made as to its accuracy, suitability for a particular application or results to be obtained from them. It is up to the manufacturer / seller to ensure that the information content in the material data sheet is relevant to the product manufactured / handled or sold by, as the case may be. GANDHAR makes no warranties expressed or implied in respect of the adequacy of this document for any particular purpose.

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

DIVYOL WIRE MET 44

Section 1: Identification of the Substance / Mixture		
1.1 Product identifier		
Product name	Divyol Wire MET 44	
Product description	Metal Drawing Compound	
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: 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 mixture		
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.	

Section 6: Accidental Release Measures	
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_2S) 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 Protection	
The list of Identified Uses in Section 1 should be consulted 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/m³ 8 hours. Form: mist and fume STEL: 3 mg/m³ 15 minutes. Form: mist and fume [Air contaminant]. AFS 2015:7 (Sweden, 12/2015). TWA: 1 mg/m³ 8 hours. Form: mist and fume STEL: 3 mg/m³ 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 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 acceptable levels.
Section 9: Physical and Chemical Properties	
Appearance	Clear
Physical state	Homogeneous Paste
Colour	Whitish Cream
Odor	Petroleum odor
Odour threshold	Not available
pH	Not applicable
Pour point	< -36 °C (ASTM D 97)
Flash point	> 180 °C
Evaporation rate	Not available
Flammability (solid, gas)	Not available
Flammability limits in air (lower), % by volume	Not available
Flammability limits in air (upper), % by volume	Not available
Vapour pressure	≤ 0,1 hPa (20 °C) (Mineral oil, ASTM D 5191) (CONCAWE, 2010)
Density Solubility (ies)	0.88 max at 15 °C

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)	32 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 Reactivity

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 reactions	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_2S, SO_x (sulphur oxides) or sulphuric acid and unidentified organic and inorganic compounds.
10.6 Hazardous decomposition products	

SECTION 11: Toxicological Information

11.1 Information on toxicological effects

Acute toxicity

Product / ingredient name	Result	Species	Dose	Exposure
Distillate (Petroleum), hydro treated heavy paraffinic	LC 50 Inhalation dusts and mists	Rat	>2.18mg/l	4 hours
	LD 50 Dermal	Rabbit	> 5000 mg/kg	–
	LD 50 Oral	Rat	>15000 mg/kg	–

Irritation / corrosion	
Skin	No known significant effects or critical hazards.
Eye	
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) 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 – single exposure	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	The base oil(s) in this product is based on an severely hydrotreated distillate. The product should not be regarded as a carcinogen.

Mutagenicity	No known significant effects or critical hazards.
Teratogenicity	
Product / ingredient name	
Fertility effects	
Other information Specific hazard	Not available

Section 12: Ecological Information

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 Considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

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 / RID	ADN	IMO / IMDG Classification	ICAO / IATA Classification
14.1 UN number	Not regulated	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 Annex I of MARPOL 73/78 and the IBC Code

Section 15: Regulatory Information

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

Europe	European Inventory of Existing Commercial Chemical Substances (EINECS) – Yes
	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
*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s) A "No" indicates that one or more components of the product 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.

Regulation (EC) no 1907/2006, Annex II as Amended by Commission Regulation (EU) 2015/830

Disclaimer: Information contained in this material data sheet is believed to be reliable, but no representation, guarantee or warranties of any kind made as to its accuracy, suitability for a particular application or results to be obtained from them. It is up to the manufacturer / seller to ensure that the information content in the material data sheet is relevant to the product manufactured / handled or sold by, as the case may be. GANDHAR makes no warranties expressed or implied in respect of the adequacy of this document for any particular purpose.

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DIVYOL WIRE MET SS

Section 1: Identification of the Substance / Mixture		
1.1 Product identifier		
Product name	Divyol Wire MET SS	
Product description	Metal Drawing Compound	
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: 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 mixture		
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.	

Section 6: Accidental Release Measures	
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_2S) 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 Protection	
The list of Identified Uses in Section 1 should be consulted 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 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 acceptable levels.
Section 9: Physical and Chemical Properties	
Appearance	Clear
Physical state	Homogeneous Paste
Colour	Whitish Cream
Odor	Petroleum odor
Odour threshold	Not available
pH	Not applicable
Pour point	< -36 °C (ASTM D 97)
Flash point	> 180 °C
Evaporation rate	Not available
Flammability (solid, gas)	Not available
Flammability limits in air (lower), % by volume	Not available
Flammability limits in air (upper), % by volume	Not available
Vapour pressure	≤ 0,1 hPa (20 °C) (Mineral oil, ASTM D 5191) (CONCAWE, 2010)
Density Solubility (ies)	0.88 max at 15 °C

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)	32 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 Reactivity

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 reactions	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_2S, SO_x (sulphur oxides) or sulphuric acid and unidentified organic and inorganic compounds.
10.6 Hazardous decomposition products	

SECTION 11: Toxicological Information

11.1 Information on toxicological effects

Acute toxicity

Product / ingredient name	Result	Species	Dose	Exposure
Distillate (Petroleum), hydro treated heavy paraffinic	LC 50 Inhalation dusts and mists	Rat	>2.18mg/l	4 hours
	LD 50 Dermal	Rabbit	> 5000 mg/kg	–
	LD 50 Oral	Rat	>15000 mg/kg	–

Irritation / corrosion	
Skin	No known significant effects or critical hazards.
Eye	
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) 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 – single exposure	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	The base oil(s) in this product is based on an severely hydrotreated distillate. The product should not be regarded as a carcinogen.

Mutagenicity	No known significant effects or critical hazards.
Teratogenicity	
Product / ingredient name	
Fertility effects	
Other information Specific hazard	Not available

Section 12: Ecological Information

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 Considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

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 / RID	ADN	IMO / IMDG Classification	ICAO / IATA Classification
14.1 UN number	Not regulated	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 Annex I of MARPOL 73/78 and the IBC Code

Section 15: Regulatory Information

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

Europe	European Inventory of Existing Commercial Chemical Substances (EINECS) – Yes
	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
*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s) A "No" indicates that one or more components of the product 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.

Regulation (EC) no 1907/2006, Annex II as Amended by Commission Regulation (EU) 2015/830

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