MANUFACTURER DOCUMENT PACKAGE

Manufacturer's Manual

Reference package for procurement and maintenance review

KYODO YUSHI

TMO150 20L

SYNTHETIC GEAR LUBRICATING OIL

Used with the applicable TMO 150 synthetic gear lubricants configuration.

REFERENCE PACKAGE

OFFICIAL DOCUMENT

Selected official manufacturer pages follow this cover.

Source: Kyodo Yushi TMO 150 composition statement, February 2024; TMO 150 SDS, March 2025.

KYODO YUSHI

KYODO YUSHI EUROPE B.V.

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TO : whom it may concern 19 February 2024

We, Kyodo Yushi Europe BV, hereby declare that lubricating oil TMO 150 is intended for use as lubricant in reduction gears and has following chemical composition :

Base oil (Polyalkylene glycol) CAS Nr. 9082-00-2	> 95%
Additives	< 5%

In addition to this we declare :

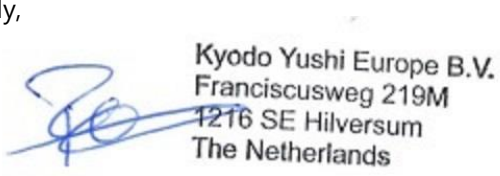
- The base substance of this lubricating oil is Polyalkylene Glycol
- No ethyl alcohol is present in the above mentioned oil

Country of origin : The Netherlands
Customs code : 340399

Shelf life; we guarantee good quality for 12 months after date of delivery.

We declare this statement is true and correct.

Your faithfully,



Peter Oosterman
Kyodo Yushi Europe BV

Safety data sheet
according to UK REACH

Printing date 14.03.2025 Version number 6 (replaces version 3) Revision: 14.03.2025

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

· **1.1 Product identifier**
· **Trade name: TMO 150**
· **Article number:** 36101033
· **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
· **Application of the substance / the mixture:** Industrial lubricating oil
· **Uses advised against** No specific uses advised against are identified.

· **1.3 Details of the supplier of the safety data sheet**
· **Manufacturer/Supplier:**
Metropa Rotterdam B.V.
Braillestraat 14, 2652 XV Berkel en Rodenrijs
The Netherlands
· **Importer / Supplier:**

Kyodo Yushi Europe B.V.
Franciscusweg 219m, 1216 SE Hilversum, The Netherlands
Tel:+31-35-5239152
E-mail:sds@kyodoyushi-europe.com

· **1.4 Emergency telephone number:** +31-35-5239152

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SECTION 2: Hazards identification

· **2.1 Classification of the substance or mixture**
· **Classification according to Regulation (EC) No 1272/2008:**
The product is not classified, according to the GB CLP regulation

· **2.2 Label elements**
· **Labelling according to Regulation (EC) No 1272/2008:**
The product is classified and labelled according to the Globally Harmonised System (GHS).
· **Hazard pictograms:** Not applicable.
· **Signal word:** Not applicable.
· **Hazard statements:** Not applicable.
· **Precautionary statements:**
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
· **Additional information:**
EUH208 Contains (4-nonylphenoxy)acetic acid. May produce an allergic reaction.
EUH210 Safety data sheet available on request.
· **2.3 Other hazards**
· **Results of PBT and vPvB assessment**
· **PBT:** Not applicable.
· **vPvB:** Not applicable.

· **Determination of endocrine-disrupting properties**		
CAS: 68937-41-7	Phenol, isopropylated, phosphate (3:1) [Triphenyl phosphate < 5%]	List II

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SECTION 3: Composition/information on ingredients

· **3.2 Mixtures**
· **Description:** Mixture of substances listed below with nonhazardous additions.

· **Dangerous components:**		
CAS: 68411-46-1 Reg.nr.: 01-2119491299-23-xxxx	Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene Repr. 2, H361	<1%

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CAS: 68937-41-7 EINECS: 273-066-3 Reg.nr.: 01-2119535109-41-xxxx	Phenol, isopropylated, phosphate (3:1) [Triphenyl phosphate < 5%] Repr. 2, H361; STOT RE 2, H373; Aquatic Chronic 4, H413	<0.3%
CAS: 3115-49-9 EINECS: 221-486-2 Reg.nr.: 01-2119982392-31-xxxx	(4-nonylphenoxy)acetic acid Skin Corr. 1B, H314; Eye Dam. 1, H318; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Acute Tox. 4, H302; Skin Sens. 1A, H317	<0.1%

· **Additional information:** For the wording of the listed hazard phrases refer to section 16.

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SECTION 4: First aid measures

· **4.1 Description of first aid measures**
· **After inhalation:** Supply fresh air; consult doctor in case of complaints.
· **After skin contact:**
Treat affected skin with cotton wool or cellulose. Then wash and rinse thoroughly with water and a mild cleaning agent.
· **After eye contact:**
Rinse opened eye for several minutes under running water. If symptoms persist,consult a doctor.
· **After swallowing:** Do not induce vomiting; call for medical help immediately.
· **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.
· **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

SECTION 5: Firefighting measures

· **5.1 Extinguishing media**
· **Suitable extinguishing agents:**
CO2, powder or water spray. Fight larger fire with alcohol resistant foam.
Use fire extinguishing methods suitable to surrounding conditions.
· **5.2 Special hazards arising from the substance or mixture**
Formation of toxic gases is possible during heating or in case of fire.
· **5.3 Advice for firefighters**
· **Protective equipment:** Wear self-contained respiratory protective device.

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SECTION 6: Accidental release measures

· **6.1 Personal precautions, protective equipment and emergency procedures**
Particular danger of slipping on leaked/spilled product.
· **6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
· **6.3 Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to section 13.
· **6.4 Reference to other sections**
No dangerous substances are released.
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

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SECTION 7: Handling and storage

· **7.1 Precautions for safe handling** Keep away from heat and direct sunlight.
· **Information about fire - and explosion protection:** When heated the product forms flammable fumes.

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· **7.2 Conditions for safe storage, including any incompatibilities**
· **Storage:**
· **Requirements to be met by storerooms and receptacles:** No special requirements.
· **Information about storage in one common storage facility:** Store away from oxidising agents.
· **Further information about storage conditions:** Protect from contamination.
· **7.3 Specific end use(s)** No further relevant information available.

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SECTION 8: Exposure controls/personal protection

· **8.1 Control parameters**
· **Ingredients with limit values that require monitoring at the workplace:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
· **Additional information:** The lists valid during the making were used as basis.

· **8.2 Exposure controls**
· **8.2.1 Appropriate engineering controls** No further data; see section 7.
· **8.2.2 Individual protection measures, such as personal protective equipment**
· **General protective and hygienic measures:** Wash hands before breaks and at the end of work.
· **Respiratory protection:** Not necessary if room is well-ventilated.
· **Hand protection**
Oil resistant gloves
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture,
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.
· **Material of gloves**
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
Nitrile rubber, NBR
PVC or PE gloves
Neoprene gloves
· **Penetration time of glove material**
The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.
· **Eye/face protection** Goggles recommended during refilling
· **8.2.3 Environmental exposure controls**
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.

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SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**

· **Physical state**	Liquid
· **Colour:**	Light yellowish brown
· **Odour:**	Recognisable
· **Melting point/freezing point:**	Undetermined.
· **Boiling point or initial boiling point and boiling range**	Undetermined.
· **Flammability**	Not applicable.

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· **Lower and upper explosion limit**	
· **Lower:**	Not determined.
· **Upper:**	Not determined.
· **Flash point:**	302 °C (COC)
· **Decomposition temperature:**	Not determined.
· **pH**	Not determined.
· **Viscosity:**	
· **Kinematic viscosity at 40 °C**	145 mm²/s
· **Dynamic:**	Not determined.
· **Solubility**	
· **water:**	Not miscible or difficult to mix.
· **Partition coefficient n-octanol/water (log value)**	Not determined.
· **Vapour pressure:**	Not determined.
· **Density and/or relative density**	
· **Density at 15 °C:**	1.07 g/cm³
· **Relative density**	Not determined.
· **Vapour density**	Not determined.
· **Particle characteristics**	Not applicable

· **9.2 Other information**	
· **Appearance:**	
· **Form:**	Liquid
· **Ignition temperature:**	Product is not selfigniting.

· **9.2.1 Information with regard to physical hazard classes**	
· **Explosives**	Not applicable.
· **Flammable gases**	Not applicable.
· **Aerosols**	Not applicable.
· **Oxidising gases**	Not applicable.
· **Gases under pressure**	Not applicable.
· **Flammable liquids**	Not applicable.
· **Flammable solids**	Not applicable.
· **Self-reactive substances and mixtures**	Not applicable.
· **Pyrophoric liquids**	Not applicable.
· **Pyrophoric solids**	Not applicable.
· **Self-heating substances and mixtures**	Not applicable.
· **Substances and mixtures, which emit flammable gases in contact with water**	Not applicable.
· **Oxidising liquids**	Not applicable.
· **Oxidising solids**	Not applicable.
· **Organic peroxides**	Not applicable.
· **Corrosive to metals**	Not applicable.
· **Desensitised explosives**	Not applicable.
· **9.2.2 Other safety characteristics**	Not applicable.

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SECTION 10: Stability and reactivity

· **10.1 Reactivity** No further relevant information available.
· **10.2 Chemical stability**
· **Thermal decomposition / conditions to be avoided:** To avoid thermal decomposition do not overheat.
· **10.3 Possibility of hazardous reactions** No dangerous reactions known.
· **10.4 Conditions to avoid** No further relevant information available.
· **10.5 Incompatible materials:** No further relevant information available.
· **10.6 Hazardous decomposition products:**
Carbon monoxide and carbon dioxide

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Trade name: TMO 150

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Toxic metal oxide smoke

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SECTION 11: Toxicological information

· **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
· **Acute toxicity** Based on available data, the classification criteria are not met.
· **LD/LC50 values relevant for classification:** Based on available data, the classification criteria are not met.
· **Primary irritant effect:**
· **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
· **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
· **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
· **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
· **Carcinogenicity** Based on available data, the classification criteria are not met.
· **Reproductive toxicity** Based on available data, the classification criteria are not met.
· **STOT-single exposure** Based on available data, the classification criteria are not met.
· **STOT-repeated exposure** Based on available data, the classification criteria are not met.
· **Aspiration hazard** Based on available data, the classification criteria are not met.
· **11.2 Information on other hazards**

· **11.2.1 Endocrine disrupting properties**		
CAS: 68937-41-7	Phenol, isopropylated, phosphate (3:1) [Triphenyl phosphate < 5%]	List II

· **11.2.2 Other information** Not applicable.

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SECTION 12: Ecological information

· **12.1 Toxicity**
· **Aquatic toxicity:** No further relevant information available.
· **12.2 Persistence and degradability** Not easily biodegradable
· **12.3 Bioaccumulative potential** No further relevant information available.
· **12.4 Mobility in soil** No further relevant information available.
· **12.5 Results of PBT and vPvB assessment**
· **PBT:** Not applicable.
· **vPvB:** Not applicable.
· **12.6 Endocrine disrupting properties** For information on endocrine disrupting properties see section 11.
· **12.7 Other adverse effects**
· **Additional ecological information:**
· **General notes:**
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

SECTION 13: Disposal considerations

· **13.1 Waste treatment methods**
· **Recommendation** Hand over to hazardous waste disposers.

· **Uncleaned packaging:**
· **Recommendation:** Disposal must be made according to official regulations.

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SECTION 14: Transport information

· **14.1 UN number or ID number**	
· **ADR/ADN, IMDG, IATA**	Not Restricted
· **14.2 UN proper shipping name**	
· **ADR/ADN, IMDG, IATA**	Not Restricted

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· **14.3 Transport hazard class(es)**	
· **ADR/ADN, IMDG, IATA**	
· **Class**	Not Restricted
· **14.4 Packing group**	
· **ADR/ADN, IMDG, IATA**	Not Restricted
· **14.5 Environmental hazards:**	
· **Marine pollutant:**	No
· **14.6 Special precautions for user**	See sections 6 to 8 of this Safety Data Sheet. Always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.
· **14.7 Maritime transport in bulk according to IMO instruments**	Not applicable.
· **UN "Model Regulation":**	Not Restricted

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SECTION 15: Regulatory information

· **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
· **Poisons Act**

· **Regulated explosives precursors**
None of the ingredients is listed.

· **Regulated poisons**
None of the ingredients is listed.

· **Reportable explosives precursors**
None of the ingredients is listed.

· **Reportable poisons**
None of the ingredients is listed.

· **Directive 2012/18/EU**
· **Named dangerous substances - ANNEX I** None of the ingredients is listed.

· **DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**
None of the ingredients is listed.

· **REGULATION (EU) 2019/1148**

· **Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))**
None of the ingredients is listed.

· **Annex II - REPORTABLE EXPLOSIVES PRECURSORS**
None of the ingredients is listed.

· **Regulation (EC) No 273/2004 on drug precursors**
None of the ingredients is listed.

· **Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors**
None of the ingredients is listed.

· **National regulations:**

· **Substances of very high concern (SVHC) according to UK REACH**
None of the ingredients is listed.

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· **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Relevant phrases**
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H361 Suspected of damaging fertility or the unborn child.
H373 May cause damage to organs through prolonged or repeated exposure.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
H413 May cause long lasting harmful effects to aquatic life.
· **Date of previous version:** 23.01.2025
· **Version number of previous version:** 3
· **Abbreviations and acronyms:**
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
ICAO: International Civil Aviation Organisation
ICAO-TI: Technical Instructions by the "International Civil Aviation Organisation" (ICAO)
ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Acute Tox. 4: Acute toxicity – Category 4
Skin Corr. 1B: Skin corrosion/irritation – Category 1B
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
Skin Sens. 1A: Skin sensitisation – Category 1A
Repr. 2: Reproductive toxicity – Category 2
STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2
Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1
Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1
Aquatic Chronic 4: Hazardous to the aquatic environment - long-term aquatic hazard – Category 4