SAFETY DATA SHEET

Optileb GT 150

Section 1. Identification

GHS product identifier Optileb GT 150

Product code 450717-DE54

SDS # 450717

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

Use of the substance/ mixture Gear lubricant
For specific application advice see appropriate Technical Data Sheet or consult our company representative.

Manufacturer

Supplier PT. Castrol Indonesia
Perkantoran Hijau Arkadia, Tower G Lt.3
Jl. TB Simatupang Kav. 88
Jakarta 12520 - Indonesia

Tel: (62-21) 78838000, Fax: (62-21) 78549165
Layanan Konsumen:
Castrol We Care 0807 1 932273 (Pulsa lokal)

EMERGENCY TELEPHONE NUMBER Carechem: 00780 3011 0293 (toll-free, access from Indonesia only)

Section 2. Hazards identification

GHS Classification LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2

GHS label elements, including precautionary statements

Hazard pictograms

Signal word No signal word.

Hazard statements H411 - Toxic to aquatic life with long lasting effects.

Precautionary statements

Prevention P273 - Avoid release to the environment.

Response P391 - Collect spillage.

Storage Not applicable.

Disposal P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

Other hazards which do not result in classification Defatting to the skin.

Section 3. Composition/information on ingredients

Substance/mixture Mixture

Synthetic lubricant and additives.

Ingredient name	%	CAS number
Amines, C12-14-alkyl, isooctyl phosphates	<1	CAS: 68187-67-7
O,O,O-triphenyl phosphorothioate	≤1	CAS: 597-82-0
2,6-ditert-butyl-p-cresol	≤1	CAS: 128-37-0
(Z)-N-methyl-N-(1-oxo-9-octadecenyl)glycine	≤0.3	CAS: 110-25-8

Section 3. Composition/information on ingredients

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Inhalation
If inhaled, remove to fresh air. Get medical attention if symptoms occur.

Ingestion
Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Get medical attention if adverse health effects persist or are severe.

Skin contact
Wash skin thoroughly with soap and water or use recognised skin cleanser. Remove contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention if symptoms occur. If skin irritation or rash occurs: Get medical advice/attention.

Eye contact
In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Check for and remove any contact lenses. Get medical attention.

Protection of first-aiders
No action shall be taken involving any personal risk or without suitable training.

Most important symptoms/effects, acute and delayed

See Section 11 for more detailed information on health effects and symptoms.

Indication of immediate medical attention and special treatment needed, if necessary

Specific treatments
No specific treatment.

Notes to physician
Treatment should in general be symptomatic and directed to relieving any effects.

Section 5. Firefighting measures

Extinguishing media

Suitable extinguishing media
Use foam or all-purpose dry chemical to extinguish.

Unsuitable extinguishing media
Do not use water jet.

Specific hazards arising from the chemical
Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain. In a fire or if heated, a pressure increase will occur and the container may burst. This material is toxic to aquatic life with long lasting effects.

Hazardous thermal decomposition products
Combustion products may include the following:
carbon oxides (CO, CO_2) (carbon monoxide, carbon dioxide)

Special protective actions for fire-fighters
No action shall be taken involving any personal risk or without suitable training. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire.

Special protective equipment for fire-fighters
Fire-fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel
Contact emergency personnel. No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Put on appropriate personal protective equipment. Floors may be slippery; use care to avoid falling.

Section 6. Accidental release measures

For emergency responders

Entry into a confined space or poorly ventilated area contaminated with vapour, mist or fume is extremely hazardous without the correct respiratory protective equipment and a safe system of work. Wear self-contained breathing apparatus. Wear a suitable chemical protective suit. Chemical resistant boots. See also the information in "For non-emergency personnel".

Environmental precautions

Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

Methods and material for containment and cleaning up

Small spill

Stop leak if without risk. Move containers from spill area. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill

Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Contaminated absorbent material may pose the same hazard as the spilt product. Dispose of via a licensed waste disposal contractor.

Section 7. Handling and storage

Precautions for safe handling

Protective measures

Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container. Avoid contact of spilt material and runoff with soil and surface waterways.

Advice on general occupational hygiene

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Wash thoroughly after handling. Remove contaminated clothing and protective equipment before entering eating areas. Contaminated work clothing should not be allowed out of the workplace. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Store and use only in equipment/containers designed for use with this product. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

Not suitable

Prolonged exposure to elevated temperature

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
2,6-ditert-butyl-p-cresol	**Minister of Labor of the Republic of Indonesia (Indonesia)** A4. TWA 8 hours: 10 mg/m³. Issued/Revised: 2/1997.

Biological exposure indices

No exposure indices known.

Recommended monitoring procedures

Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

Section 8. Exposure controls/personal protection

Appropriate engineering controls

All activities involving chemicals should be assessed for their risks to health, to ensure exposures are adequately controlled. Personal protective equipment should only be considered after other forms of control measures (e.g. engineering controls) have been suitably evaluated. Personal protective equipment should conform to appropriate standards, be suitable for use, be kept in good condition and properly maintained.
Your supplier of personal protective equipment should be consulted for advice on selection and appropriate standards. For further information contact your national organisation for standards.
Provide exhaust ventilation or other engineering controls to keep the relevant airborne concentrations below their respective occupational exposure limits.
The final choice of protective equipment will depend upon a risk assessment. It is important to ensure that all items of personal protective equipment are compatible.

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.

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. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

Safety glasses with side shields.

Skin protection

Hand protection

Wear protective gloves if prolonged or repeated contact is likely. Wear chemical resistant gloves. Recommended: Nitrile gloves. The correct choice of protective gloves depends upon the chemicals being handled, the conditions of work and use, and the condition of the gloves (even the best chemically resistant glove will break down after repeated chemical exposures). Most gloves provide only a short time of protection before they must be discarded and replaced. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. Gloves should therefore be chosen in consultation with the supplier/manufacturer and with a full assessment of the working conditions.

Skin protection

Use of protective clothing is good industrial practice.
Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Cotton or polyester/cotton overalls will only provide protection against light superficial contamination that will not soak through to the skin. Overalls should be laundered on a regular basis. When the risk of skin exposure is high (e.g. when cleaning up spillages or if there is a risk of splashing) then chemical resistant aprons and/or impervious chemical suits and boots will be required.

Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment.
For protection against metal working fluids, respiratory protection that is classified as “resistant to oil” (class R) or oil proof (class P) should be selected where appropriate.
Depending on the level of airborne contaminants, an air-purifying, half-mask respirator (with HEPA filter) including disposable (P- or R-series) (for oil mists less than 50mg/m3), or any powered, air-purifying respirator equipped with hood or helmet and HEPA filter (for oil mists less than 125 mg/m3).
Where organic vapours are a potential hazard during metalworking operations, a combination particulate and organic vapour filter may be necessary.
The correct choice of respiratory protection depends upon the chemicals being handled, the conditions of work and use, and the condition of the respiratory equipment. Safety procedures should be developed for each intended application.
Respiratory protection equipment should therefore be chosen in consultation with the supplier/manufacturer and with a full assessment of the working conditions.

Section 9. Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

Appearance

Physical state Liquid.

Colour Yellow. [Light]

Odour Not available.

Odour threshold Not available.

pH Not applicable.

Melting point Not available.

Boiling point or initial boiling point and boiling range Not available.

Flash point Closed cup: 220°C (428°F) [Pensky-Martens ASTM D 93]

Evaporation rate Not available.

Flammability Not available.

Lower and upper explosion limit/flammability limit Not available.

Vapour pressure

Ingredient name	Vapour Pressure at 20˚C			Vapour pressure at 50˚C		
	mm Hg	kPa	Method	mm Hg	kPa	Method
Dec-1-ene, homopolymer, hydrogenated Dec-1-ene, oligomers, hydrogenated	<0.0041	<0.00055	ASTM E 1194-87			
Dec-1-ene, homopolymer, hydrogenated Dec-1-ene, oligomers, hydrogenated	<0.0041	<0.00055	ASTM E 1194-87			
isopropyl oleate	0.00000062	0.000000083				

Relative vapour density Not available.

Density <1000 kg/m³ (<1 g/cm³) at 15°C

Relative density Not available.

Solubility(ies)

Media	Result
water	Not soluble

Partition coefficient: n-octanol/water Not applicable.

Auto-ignition temperature

Ingredient name	°C	°F	Method
Dec-1-ene, homopolymer, hydrogenated Dec-1-ene, oligomers, hydrogenated	343 to 369	649.4 to 696.2	ASTM D 2159
Dec-1-ene, homopolymer, hydrogenated Dec-1-ene, oligomers, hydrogenated	343 to 369	649.4 to 696.2	ASTM D 2159
isopropyl oleate	240	464	

Decomposition temperature Not available.

Viscosity Kinematic: 138 to 162 mm^2/s (138 to 162 cSt) at 40°C
Kinematic: 19.4 mm^2/s (19.4 cSt) at 100°C (ASTM D 445)

Particle characteristics

Median particle size Not applicable.

Section 10. Stability and reactivity

Reactivity	No specific test data available for this product. Refer to Conditions to avoid and Incompatible materials for additional information.
Chemical stability	The product is stable.
Possibility of hazardous reactions	Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous polymerisation will not occur.
Conditions to avoid	Avoid all possible sources of ignition (spark or flame).
Incompatible materials	Reactive or incompatible with the following materials: oxidising materials.
Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result
(Z)-N-methyl-N-(1-oxo-9-octadecenyl)glycine	**Rat - Oral - LD50** >5000 mg/kg OECD 401 **Rat - Inhalation - LC50 Dusts and mists** 1.37 mg/l [4 hours] OECD 403

Skin corrosion/irritation

Product/ingredient name	Result
(Z)-N-methyl-N-(1-oxo-9-octadecenyl)glycine	**Rabbit - Skin - Irritant** OECD 404

Serious eye damage/eye irritation

Product/ingredient name	Result
(Z)-N-methyl-N-(1-oxo-9-octadecenyl)glycine	**Rabbit - Eyes - Severe irritant** OECD 405

Respiratory corrosion/irritation

Not available.

Respiratory or skin sensitization

Product/ingredient name	Result
(Z)-N-methyl-N-(1-oxo-9-octadecenyl)glycine	**Guinea pig - skin** OECD 406 Result: Not sensitising

Germ cell mutagenicity

Product/ingredient name	Result
(Z)-N-methyl-N-(1-oxo-9-octadecenyl)glycine	**In vitro - Bacteria** OECD 471 Result: Negative **In vitro - Mammalian-Animal** OECD 473 Result: Negative **In vitro - Mammalian-Animal** OECD 476 Result: Negative

Section 11. Toxicological information

Carcinogenicity

Not available.

Reproductive toxicity

Product/ingredient name	Result
(Z)-N-methyl-N-(1-oxo-9-octadecenyl)glycine	**Rat - Oral** OECD 421 Maternal toxicity: Negative Fertility effects: Negative Developmental: Negative

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on likely routes of exposure Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.

Potential acute health effects

Eye contact No known significant effects or critical hazards.

Inhalation Vapour inhalation under ambient conditions is not normally a problem due to low vapour pressure.

Skin contact Defatting to the skin. May cause skin dryness and irritation.

Ingestion No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact No specific data.

Inhalation No specific data.

Skin contact Adverse symptoms may include the following:
irritation
dryness
cracking

Ingestion No specific data.

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

Eye contact Potential risk of transient stinging or redness if accidental eye contact occurs.

Inhalation Overexposure to the inhalation of airborne droplets or aerosols may cause irritation of the respiratory tract.

Skin contact Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.

Ingestion Ingestion of large quantities may cause nausea and diarrhoea.

Short term exposure

Potential immediate effects Not available.

Potential delayed effects Not available.

Long term exposure

Potential immediate effects Not available.

Potential delayed effects Not available.

Section 11. Toxicological information

General No known significant effects or critical hazards.

Carcinogenicity No known significant effects or critical hazards.

Mutagenicity No known significant effects or critical hazards.

Developmental effects No known significant effects or critical hazards.

Fertility effects No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
Amines, C12-14-alkyl, isooctyl phosphates	500	1100	N/A	N/A	N/A
(Z)-N-methyl-N-(1-oxo-9-octadecenyl)glycine	N/A	N/A	N/A	N/A	1.5

Section 12. Ecological information

Product/ingredient name	Result
(Z)-N-methyl-N-(1-oxo-9-octadecenyl)glycine	**Acute - ErC50** OECD 201 Algae 6.3 mg/l [72 hours] **Acute - EC50** OECD 202 Daphnia 0.43 mg/l [48 hours] **Acute - LC50** OECD 203 Fish 6.8 mg/l [96 hours] **Chronic - NOEC** OECD 201 Algae 0.91 mg/l [72 hours]

Environmental effects Water polluting material. May be harmful to the environment if released in large quantities. This material is toxic to aquatic life with long lasting effects.

Persistence/degradability

Not expected to be rapidly degradable.

Product/ingredient name	Result
(Z)-N-methyl-N-(1-oxo-9-octadecenyl)glycine	OECD 301B 85.2% [28 days] - Readily

Bioaccumulative potential

Not available.

Product/ingredient name	$LogP_{ow}$	BCF	Potential
2,6-ditert-butyl-p-cresol	5.1	-	High
(Z)-N-methyl-N-(1-oxo-9-octadecenyl)glycine	3.5 to 4.2	-	Low

Mobility in soil

Soil/water partition coefficient Not available.

Mobility Liquid. insoluble in water.

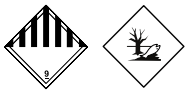
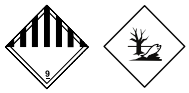
Section 12. Ecological information

Other adverse effects No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods The generation of waste should be avoided or minimised wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	IMDG	IATA
UN number	UN3082	UN3082
UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s.. Marine pollutant (O,O,O-triphenyl phosphorothioate)	Environmentally hazardous substance, liquid, n.o.s. (O,O,O-triphenyl phosphorothioate)
Transport hazard class(es)	9 	9 
Packing group	III	III
Environmental hazards	Yes.	Yes.
Additional information	This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8. **Emergency schedules** F-A, S-F	This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 5.0.2.4.1, 5.0.2.6.1.1 and 5.0.2.8.

Special precautions for user Not available.

Section 15. Regulatory information

Law No. 74/2001 - Banned

None of the components are listed.

Law No. 74/2001 - Restricted

None of the components are listed.

Ministry of Health - Law No. 472/Menkes/Per/V/1996

Carcinogen

None of the components are listed.

Corrosive

None of the components are listed.

Irritation

None of the components are listed.

Mutagen

Section 15. Regulatory information

None of the components are listed.

Oxidiser

None of the components are listed.

Poison

None of the components are listed.

Teratogen

None of the components are listed.

International lists

National inventory

Australia inventory (AIIC)	All components are listed or exempted.
Canada inventory status	All components are listed or exempted.
China inventory (IECSC)	All components are listed or exempted.
REACH Status	The company, as identified in Section 1, sells this product in the EU in compliance with the current requirements of REACH.
Japan inventory (CSCL)	All components are listed or exempted.
Philippines inventory (PICCS)	At least one component is not listed.
Korea inventory (KECI)	All components are listed or exempted.
Taiwan Chemical Substances Inventory (TCSI)	All components are listed or exempted.
United States inventory (TSCA 8b)	All components are active or exempted.

Section 16. Other information

History

Date of issue/Date of revision	25 September 2025
Date of previous issue	6 August 2025
Prepared by	Product Stewardship
Key to abbreviations	ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor GHS = Globally Harmonized System of Classification and Labelling of Chemicals IATA = International Air Transport Association IBC = Intermediate Bulk Container IMDG = International Maritime Dangerous Goods LogPow = logarithm of the octanol/water partition coefficient MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution) REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation [Regulation (EC) No. 1907/2006] UN = United Nations Varies = may contain one or more of the following 64741-88-4, 64741-89-5, 64741-95-3, 64741-96-4, 64742-01-4, 64742-44-5, 64742-45-6, 64742-52-5, 64742-53-6, 64742-54-7, 64742-55-8, 64742-56-9, 64742-57-0, 64742-58-1, 64742-62-7, 64742-63-8, 64742-65-0, 64742-70-7, 72623-85-9, 72623-86-0, 72623-87-1

Indicates information that has changed from previously issued version.

Notice to reader

All reasonably practicable steps have been taken to ensure this data sheet and the health, safety and environmental information contained in it is accurate as of the date specified below. No warranty or representation, express or implied is made as to the accuracy or completeness of the data and information in this data sheet.

The data and advice given apply when the product is sold for the stated application or applications. You should not use the product other than for the stated application or applications without seeking advice from BP Group.

It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations. The BP Group shall not be responsible for any damage or injury resulting from use, other than the stated product use of the material, from any failure to adhere to recommendations, or from any hazards inherent in the nature of the

Section 16. Other information

material. Purchasers of the product for supply to a third party for use at work, have a duty to take all necessary steps to ensure that any person handling or using the product is provided with the information in this sheet. Employers have a duty to tell employees and others who may be affected of any hazards described in this sheet and of any precautions that should be taken. You can contact the BP Group to ensure that this document is the most current available. Alteration of this document is strictly prohibited.