



Safety Data Sheet (SDS)

Product Name : Medripal 412
Revision : 3
Validation Date : April 28th 2019
Valid Period : 5 (five) years

PT Pertamina Lubricants
Grha Pertamina, Pertamina Tower 15th-17th floor
Jl. Medan Merdeka Timur No. 11-13
Jakarta Pusat 10110 Indonesia

**LEMBAR DATA KESELAMATAN
(SAFETY DATA SHEET)**

1. Identification

- Product identification/name : Medripal 412
- Identification number : 489
- Recommended use of the chemical and restrictions on use : Medripal 412 is Recommended for lubrication of medium speed trunk piston industrial and marine diesel engines
- Manufacturer's details : **PT Pertamina Lubricants**
Grha Pertamina, Pertamina Tower 15th-17th floor
Jl. Medan Merdeka Timur No. 11-13
Central Jakarta 10110 Indonesia
T : +62 21 3190 7190
- Emergency phone number : (021) 1 500 000

2. Hazard Identification

- Classification of the product : Reproductive toxicity, category 2.
Hazardous to aquatic environment, category 4.
- GHS label elements : Health Hazard
- Signal word : Warning
- Hazard statement(s) :
Physical hazard
No hazard statement

Health hazard
H361 - Suspected of damaging fertility or the unborn child

Environmental hazard
H413 – May cause long lasting effect to aquatic life
- Precautionary statement(s) :
General
No precautionary statement

Preventive
P201- Obtain special instructions before use
P202- Do not handle until all safety precautions have been read and understood
P280- Wear protective gloves/protective clothing/eye protection/face protection
P273 - Avoid release to the environment.

**LEMBAR DATA KESELAMATAN
(SAFETY DATA SHEET)**

2. Hazard Identification

Response

P308+P313- If exposed or concerned: Get medical advice/attention

Storage

P405- Store locked up

Disposal

P501 - Dispose of contents/container to waste collector conform to regulations

- Pictogram

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- Other hazards which do not result in classification : May cause eye irritation if exposed repeatedly in abnormal condition

3. Composition/Information on the Ingredients

- Chemical identity : Hydrocarbon petroleum and additive
- Common/trade name/synonym : Medripal 412
- CAS/EC number : confidential
- Impurities and stabilizing additives : confidential
- Mixtures

Chemical Ingredients	CAS Number	% wt as product
p-Dodecylphenol	Confidential	0,5-0,99
Zinc alkyldithiophospate	Confidential	0,5-0,99

4. First Aid Measures

- Description of necessary first aid measure:
 - Eye contact : Rinse with plenty of water. If irritation occurs, refer to a physician.
 - Skin Contact : Wash the contaminated skin with water and soap. Remove the clothes. Get medical advice if further irritation occurs immediately. Wash the contaminated clothing before reuse.
 - Inhalation : Remove victim to fresh air and keep at rest in a comfortable position for breathing.
 - Ingestion : Do not give anything through mouth that can induce nausea or vomiting. Get medical advice if emergency condition occurs.

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(SAFETY DATA SHEET)**

4. First Aid Measures

- Most important symptoms/effects (acute and delayed):
 - No data
- Indication of immediate medical attention and special treatment needed:
 - No data

5. Fire-fighting Measures

- Suitable extinguishing media : Carbon dioxide, water, foam, and dry chemical
- Specific hazards arising from the chemical
- Other hazardous combustion products : No other hazardous combustion
- Flash point °C : 270 (ASTM D-92)
- Hazardous chemical decomposition : No data available
- Special protective actions for fire fighters :
 - a. Dry Chemical
Spray to the origin of fire in the same direction with the wind.
 - b. Foam
If fire is in a container, spray the foam to inner wall of the container and not to the ignited liquid in the same direction with the wind. If it is spill, spray to the origin of fire in the same direction with wind until all the fire covered. Do not dispose the spill to the drainage, sewage system, and clean water source (drinking water).
- Special protective equipment : If fire occurs in limited/indoor/closed area, fire fighter operator must wear Self-Contained Breathing Apparatus (SCBA).

6. Accidental Release Measures

- Personal precautions, protective equipment, and emergency procedures
Keep away from fire sources. Avoid direct contact with skin , eye, and clothes (see section 8).
- Environmental precautions
Prevent oil spill goes into drainage, sewage system, and soil.
- Procedures
Report spill according to the valid system and procedures. If spill is estimated can goes into drainage or streams, do immediate report to the authority.

**LEMBAR DATA KESELAMATAN
(SAFETY DATA SHEET)**

6. Accidental Release Measures

- Methods and materials for containment and cleaning up
Do oil spill control with oil spill kit (absorbents: sawdust, sorbent pad/pillow, etc, and other fire retardant material). Clean and dispose cleaned material in the right waste disposal.

7. Handling and Storage

- Preventive procedure for safe handling
- Precautions for safe handling
Do not get in eyes, skin, and clothes. See section 8 for personal protective equipment suggestions when handling this product. Do not inhale vapor from hot material, wash after use. Avoid release/spill.
- Conditions for safe storage (including any incompatibilities)
Store in closed and labeled container. Keep away from oxidizer, hot material, or combustible materials. Store at temperatures not exceeding 50 Celsius degrees.
- Recommended/compatible packaging material
Use mild carbon steel or high density polyethylene for container or container coating.
- Other information/advice
Container made from polyethylene cannot be exposed to high temperature because it is able to change the shape.

8. Exposure Controls and Personal Protection

- Control parameters

Exposure limits	:	No data available
Biological limit value	:	No data available
- Appropriate engineering controls :

Ventilation	:	In common condition, special ventilation requirement is not needed
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- Individual protection measures (such as personal protective equipment) :

Respiratory protection	:	In common condition, no special requirements needed.
Eye protection	:	Use eye protective equipment (chemical goggles dan face shield) if material heated.
Hand protection	:	In common condition, no special requirement needed. If there is hand contact probability, use

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(SAFETY DATA SHEET)**

<p>Skin and body protection</p> <ul style="list-style-type: none"> • Hygiene practices : <ul style="list-style-type: none"> - No data 	<p>standardized and relevant gloves (e.g: EN374, US: F739) which has been agreed and made from proven material that can give protection from the chemical, neophrene or neophrene rubber gloves or nitrile.</p> <p>: No special work clothing (without coverall) for skin or other body protection.</p>
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9. Physical and Chemical Properties

SAE Number	:	No data available	
Specific Weight, 15°C, Kg/l	:	0.8791	(ASTM D-4052)
Appearance (physical state, color, etc)	:	4.5	(ASTM D-1500)
Odor	:	No data available	
Odor threshold	:	No data available	
pH	:	No data available	
Melting/freezing point, °C	:	-18	(ASTM D-5950)
Initial boiling point and boiling range	:	No data available	
Flammable properties (solid, gas)	:	No data available	
Flash point (COC), °C	:	270	(ASTM D-92)
Evaporation rate	:	No data available	
Flammability (solid, gas)	:	Low	
Lower/upper flammability and/or explosive limits	:	No data available	
Vapor pressure	:	No data available	
Vapor density	:	No data available	
Relative density	:	No data available	
Solubility			
- Water solubility	:	No data available	
- Other solvent solubility	:	No data available	
Partition coefficient: n-octanol/water	:	No data available	
Auto-ignition temperature	:	No data available	
Decomposition temperature	:	No data available	
Kinematic viscosity at 40°C, cSt	:	141.8	(ASTM D-7279)

10. Stability and reactivity

<ul style="list-style-type: none"> • Chemical stability and reactivity • Possibility of hazardous reactions • Condition to avoid • Incompatible materials 	<p>: Stable for normal use and under normal condition</p> <p>: No data available</p> <p>: Temperature above normal condition</p> <p>: Strong oxides, strong acid and base.</p>
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(SAFETY DATA SHEET)**

10. Stability and reactivity

- Hazardous decomposition products : No data available

11. Toxicological Information

- Acute toxicity
 - Skin corrosion/irritation : No data available. Suspected to cause mild irritation based on test to similar material and component.
 - Serious eye damage/irritation : No data available. It is not expected to cause serious irritation based on test to similar material and component.
 - Respiratory/skin sensitization : No data available. It is expected that inhaling material fog or vapor after heating will cause irritation and upper respiratory problem.
 - Germ cell mutagenicity : No data available. It is expected that it is not mutagen based on test to the components.
 - Carcinogenicity : No data available. It is expected that it is not carcinogen based on test to the components.
 - Reproductive toxicity : No data available. It is expected that it is reproductive toxicant based on test to the components.
 - Systemic Target Organ Toxicity-single exposure : No data available. It is expected that it does not cause organ damage because of single exposure.
 - Systemic Target Organ Toxicity-repeated exposure : No data available. It is expected that it does not cause organ damage because of long term or repeated exposure based on test to the components.
 - Aspiration hazard : No data available. It is expected that it does not give aspiration risk based on its materials physical-chemical properties
 - Information on the likely routes of exposure : No data available
- Symptoms related to the physical, chemical, and toxicological characteristics : No data available
- Delayed and immediate effects and also chronic effects from short and long term exposure : No data available
- Numerical measures of toxicity : No data available
- Interactive effects
- Where specific chemical data are not available : No data available
- Mixtures : No data available

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(SAFETY DATA SHEET)**

11. Toxicological Information

- Mixture versus ingredient information : No data available
- Other information : No data available

12. Ecological Information

- Ecotoxicity :
Materials – May cause harm to aquatic organism. May cause long lasting harmful effect to aquatic life. Soil seepage may cause soil water contamination or aquifer. No potential to cause air pollution and ozone layer damage.
- Persistence and degradability :
Biodegradation:
Lubricant base component – Suspected has biodegradation properties
- Bioaccumulative potential
This product is estimated that will not accumulate biologically through food chain in the environment.
- Mobility in soil :
Lubricant base component – Low solubility, floating, and suspected can move from water to land. It is also suspected that will crack to sedimentation and wastewater particle.
- Other adverse effect : No data

**Information given is based on available material data, material component data, and similar material data.*

13. Disposal Considerations

- Disposal Methods
 - Product Disposal
Lubricant waste may not dispose with domestic waste and must be manage according to the valid government regulation. As alternative, the waste disposal can be done by authorized third party.
 - Packaging/container Disposal
Two-hundred nine (209) capacity drum must be in empty condition, labeled, and returns to the supplier or authorized party that have license to do recondition drum waste. Uncontaminated metal and plastic packaging can be recycled if possible, or disposed as domestic waste.

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(SAFETY DATA SHEET)**

14. Transport Information

- ICAO/IATA 1
 - UN Number : Not regulated
 - UN Proper Shipping Name : Not regulated
 - Transport Hazard class(es) : Not regulated
 - Packing Group (if applicable) : Not regulated
 - Environmental Hazards : Not regulated
 - Special Precautions for User : Not regulated
- ICAO/IATA II
 - UN Number : Not regulated
 - UN Proper Shipping Name : Not regulated
 - Transport Hazard class(es) : Not regulated
 - Packing Group (if applicable) : Not regulated
 - Environmental Hazards : Not regulated
 - Special Precautions for User : Not regulated
- IMDG
 - UN Number : Not regulated
 - UN Proper Shipping Name : Not regulated
 - Transport Hazard class(es) : Not regulated
 - Packing Group (if applicable) : Not regulated
 - Environmental Hazards : Not regulated
 - Special Precautions for User : Not regulated
- US DOT Non Bulk
 - UN Number : Not regulated
 - UN Proper Shipping Name : Not regulated
 - Transport Hazard class(es) : Not regulated
 - Packing Group (if applicable) : Not regulated
 - Environmental Hazards : Not regulated
 - Special Precautions for User : Not regulated

**LEMBAR DATA KESELAMATAN
(SAFETY DATA SHEET)**

14. Transport Information

- USCG Compatibilty
 - UN Number : Not regulated
 - UN Proper Shipping Name : Not regulated
 - Transport Hazard class(es) : Not regulated
 - Packing Group (if applicable) : Not regulated
 - Environmental Hazards : Not regulated
 - Special Precautions for User : Not regulated
- Canada
 - UN Number : Not regulated
 - UN Proper Shipping Name : Not regulated
 - Transport Hazard class(es) : Not regulated
 - Packing Group (if applicable) : Not regulated
 - Environmental Hazards : Not regulated
 - Special Precautions for User : Not regulated
- Mexico
 - UN Number : Not regulated
 - UN Proper Shipping Name : Not regulated
 - Transport Hazard class(es) : Not regulated
 - Packing Group (if applicable) : Not regulated
 - Environmental Hazards : Not regulated
 - Special Precautions for User : Not regulated
- Indonesia
 - UN Number : Not regulated
 - UN Proper Shipping Name : Not regulated
 - Transport Hazard class(es) : Not regulated
 - Packing Group (if applicable) : Not regulated
 - Environmental Hazards : Not regulated
 - Special Precautions for User : Not regulated

**LEMBAR DATA KESELAMATAN
(SAFETY DATA SHEET)**

15. Regulatory information*

- Safety, health, and environmental regulations specific for the product in question :
 - Globally Harmonized System of Classification and Labelling of Chemical (GHS), Rev. 4th.
 - Work Health and Safety Act and Regulations (WHS Act and Regulations)
 - Code of Practice Preparation of Safety Data Sheets for Hazardous Chemicals (Safe Work Australia)
 - Code of Practice Labelling of Safety Data Sheets for Hazardous Chemicals (Safe Work Australia)
 - Registration, Evaluation, Authorization and Restriction of Chemical (REACH)
- List of Substances are compliance with:
 - The National Industrial Chemical Notification and Assessment Scheme (NICNAS)
 - The Australian Inventory of Chemical Substances (AICS)

16. Other information

- SDS validation date : April 28th 2019
- SDS revision date : April 28th 2019
- Revision explanation : Adjusted to Peraturan Menteri Perindustrian Nomor 23 Tahun 2013 tentang Perubahan Atas Peraturan Menteri Perindustrian Nomor 87/M-IND/PER/9/2009 tentang Sistem Harmonisasi Global Klasifikasi dan Label pada Bahan Kimia
- Key/legend to abbreviations and acronyms used in SDS :
 - SDS – Safety Data Sheet
 - CAS – Chemical Abstracts Service (unique identity number for substance and mixture)
 - SAE number – Society of Automotive Engineers (code used for viscosity specification of lubricant)
 - ASTM – American Standard Testing and Material
 - UN Number – United Nations Number (used for transportation classification)
 - ICAO/IATA – International Civil Aviation Organization/International Air Transport Association
 - IMDG – International Maritime Dangerous Goods
 - USCG Compatibility – US Coast Guard Compatibility (classification of chemical contained cargo which transported with ship)
- Key literature references and sources for data used to compile the SDS : No data

**LEMBAR DATA KESELAMATAN
(SAFETY DATA SHEET)**

16. Other information

- Further information :
 - Data in this SDS is available only for material/product above (Medripal 412).
 - It is not applicable for particular process which is not suggested or mixed with other materials.
 - The risk of this product condition and compatibility for other use, which is not guaranteed by the company, is borne to the user. Precaution sign and handling procedure of this product must be obtained by user and staff who use the product.
 - Do not change or revise this document except with legal approval.

GENERAL NOTES

FOOT NOTE

Additional information : This document contains important information to ensure product storage, handling, and application will be done safely.

Revised parts: revised parts of this document is underlined and italic.

Application: this product cannot be used for other application besides recommendation in section 1 without any suggestion from the supplier.

SDS distribution: information in this document must be obtained and accessed by anyone who handles the product

Terms and Conditions: this information is made based on actual knowledge and intended to describe the product for health, safety, and environment requirements. Therefore, it cannot be interpreted for particular material guarantee of the product.