



Safety Data Sheet (SDS)

Product Name : Rored LSD 90
Revision : 1
Validation Date : July 13th, 2026
Valid Period : 5 (five) years

PT Pertamina Lubricants

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

LEMBAR DATA KESELAMATAN (SAFETY DATA SHEET)

1. Identification

- Product identification/name : Rored LSD 90
- Identification number : -
- Recommended use of the chemical and restrictions on use : Rored LSD is suitable for use in passenger car and truck axles with either conventional or limited slip differentials requires above performance levels.
- 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 : 135

2. Hazard Identification

- Classification of the product : Skin sensitization, category 1
Hazardous to the aquatic environment, chronic toxicity – category 3
- GHS label elements : Exclamation Mark
- Signal word : Warning
- Hazard statement(s) :
Physical hazard
No hazard statement

Health hazard
H317 – May cause an allergic skin reaction

Environmental hazard
H413 – Harmful to aquatic life with long lasting effects.
- Precautionary statement(s) :
General
No precautionary statement

Preventive
P261 – Avoid breathing dust/fume/gas/mist/vapours/spray.
P272 – Contaminated work clothing should not be allowed out of the workplace.
P280 – Wear protective gloves/protective clothing/eye protection/face protection.
P273 - Avoid release to the environment.

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2. Hazard Identification

Response

P302 + P352 – IF ON SKIN: Gently wash with plenty of soap and water.

P333 + P313 – If skin irritation or rash occurs: Get medical advice/attention.

P362 + P364 – Take off contaminated clothing and wash before reuse.

P321 – Specific treatment (see on GHS label).

Storage

P403 + P235 – Store in a well-ventilated place. Keep cool.

P405 – Store locked up

Disposal

P501 – Dispose of contents/container to waste collector

- Pictogram :



- Other hazards which do not result in classification : No hazard

3. Composition/Information on the Ingredients

- Chemical identity : Hydrocarbon petroleum and additive
- Common/trade name/synonym : Rored LSD 90
- Mixtures

Chemical Ingredients	CAS Number	% wt as product
-	-	-

4. First Aid Measures

- Description of necessary first aid measure:
 - General : May not cause any health hazard in normal condition
 - Eye contact : Rinse with plenty of water. If irritation occurs, refer to a physician.
 - Skin contact : Rinse the contaminated skin with absorbent or towel. 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 comfortable position for breathing

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4. First Aid Measures

- Ingestion : Give plenty of water immediately (> 500ml) (give active carbon if needed) in case spontaneous vomiting occurs. Do not give anything through mouth if unconsciousness occurs. Get medical advice.
- 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 : water, foam, and dry chemical
- Specific hazards arising from the chemical
 - Other hazardous combustion products : No other hazardous combustion
 - Flash point °C : No data available
 - 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.

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6. Accidental Release Measures

- **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.
- **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
- **Individual protection measures (such as personal protective equipment) :**
Respiratory protection : In common condition, no special requirements needed.

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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 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.
Skin and body protection	: No special work clothing (without coverall) for skin or other body protection.
- Hygiene Practices : - No data	

9. Physical and Chemical Properties

SAE Viscosity Grade	: Not data available	(ASTM D-4052)
Density at 15°C, kg/L	: 0.8930	
Appearance (physical state, color, etc)	: Clear	(ASTM D-97)
Odor	: No data available	
Odor threshold	: No data available	
pH	: No data available	
Pour point, °C	: -9	
Initial boiling point and boiling range	: No data available	
Flammable properties (solid, gas)	: No data available	
Flash point (COC), °C	: No data available	
Evaporation rate	: No data available	
Flammability (solid, gas)	: No data available	
Lower/upper flammability and/or explosive limits	: No data available	(ASTM D-7279)
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 100°C, cSt	: 18.00	

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10. Stability and reactivity

- Chemical stability and reactivity : Stable for normal use and under normal condition
- Possibility of hazardous reactions : No data available
- Condition to avoid : Temperature above normal condition
- Incompatible materials : Strong oxides, strong acid and base,
- Hazardous decomposition products : CO, metal oxide, other oxides, smoke, H₂S, and *alkyl mercaptans*

11. Toxicological Information

- Acute toxicity
 - Skin corrosion/irritation : No data available. Suspected not to cause mild irritation based on test to similar material and component.
 - Serious eye damage/ irritation : Do not cause skin irritation based on test to similar material and component.
 - Respiratory/skin sensitization : Do cause eye irritation based on test to similar material and component.
 - Germ cell mutagenicity : No data available which shows that product contains >1% material which have mutagenicity effects.
 - Carcinogenicity : Do not cause carcinogen based on test to the components.
 - Reproductive toxicity : Do not contain material which have reproductive toxicity effects.
 - 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

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11. Toxicological Information

- Numerical measures of toxicity : No data available
- Interactive effects
- Where specific chemical data : No data available
are not available
- Mixtures : No data available
- Mixture versus ingredient : No data available
information
- 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

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recondition drum waste. Uncontaminated metal and plastic packaging can be recycled if possible, or disposed as domestic waste.

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

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14. Transport Information

Environmental Hazards	: Not regulated
Special Precautions for User	: Not regulated
• USCG Compatibility	
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

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14. Transport Information

Environmental Hazards	: Not regulated
Special Precautions for User	: Not regulated

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 : July 13th, 2026
- SDS revision date : July 13th, 2026
- 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

**LEMBAR DATA KESELAMATAN
(SAFETY DATA SHEET)****16. Other information**

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
- Further information :
 - Data in this SDS is available only for material/product above (Rored LSD 90)
 - 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.