MATERIAL SAFETY DATA SHEET

1. PRODUCT IDENTIFICATION AND COMPANY

Product Name	: PETRO RENOVA SAE 90, SAE 140
Product Type	: AUTOMOTIVE GEAR OIL
Company	: PT. PETROMITRA PACIFIC INTERNUSA
	KAWASAN PERKANTORAN ALAM SUTERA TOWN CENTER, BLOK 10H NO.18 TANGGERANG.
Tlp	: (021) 292 11 565 Fax : (021) 292 11 566

2. COMPOSITION

Mineral Oil Cntent	95 %
Additives Content	5 %

3. HAZARDS IDENTIFICATION

Human Health	Product is not hazardous
Eye Contact	Slightly irritant
Skin Contact	Prolonged or repeated contact may irritate skin
Inhalation	Repeated and repeated contact may irritate skin
Ingestion	Minimal toxicity
Safety Hazards	Not classified as flammable but will burn
Environmental Hazards	Not readily biodegradable

4. FIRST AID

Eye Contact	Flush eyes with large amount of water until irritation subsides. If irritation persists, get medical attention
Skin Contact	Flush with large amount of water, use soap if available. Remove contaminated clothing. If irritation persists, get medical attention.
Inhalation	Remove to fresh air. If rapid recovery does not occur, get medical attention
Ingestion	Do not induce vomiting. If rapid recovery does not occur, get medical attention

5. FIRE SAFETY

Flash Point	>170ºC
Flammable Limits	LEL 1.0 UEL 6.0
Autoignition Temp	>220ºC
Specific Hazards	Not classified as flammable but will burn. Hazardous combustion product may include carbon monoxide, oxides of sulphur, and unidentified organic and inorganic compounds
Fire Fighting	Use dry chemical, foam or carbon dioxide to extinguish fire. Water may cause splattering or frothing. Use water to cool and protect fire-exposed material. Wear protective equipment during fire fighting

6. ACCIDENTAL RELEASE MEASURES

Clean-up Procedures Stop the source of leak or realease and contain spill if possible. Cover spill with generous amount of inert absorbent material such as sand of earth Sweep up and remove to suitable,clearly marked containers for disposal in accordance with local regulations. Scrub contaminated area with detergent and water. Pick up liquid with additional absorbent material and dispose as above. Wear proper protective equipment during clean-up

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7. HANDLING AND STORAGE

Handling	Handling temperatures should not exceed 70ºC. Wear proper safety protective equipment. Wash hands thoroughly after handling. Water contamination and spillage should be avoided.
Storage	Storage temperatures should be maintained between 0 to 50ºC. Odorous and toxic fumes may be evolved from decomposition of product if stored above the safe temperature.

8. EXPOSURE CONTROL/PERSONAL PROTECTION

Exposure Limits	Threshold Limit Values for oil mist is recommended to be controlled at 5 mg/m³ or lower for exposure of 8 hours daily
Ventilation	Use exhaust ventilation to keep below exposure limits
Eye Protection	Wear safety glasses or face shields if splashing is likely to occur
Skin Protection	Avoid repeated and prolonged contact with product. Use oil resistant gloves
Respiratory Protection	Not normally required unless in confined
Body Protection	Use proper protection equipment to avoid contact. Wear PVC apron i if splashes are likely to occur

9. PHYSICAL AND CHEMICAL PROPERTIES

PRODUCT GRADE	PHYSICAL PROPERTIES	
	SAE 90	SAE 140
Density at 15°C/kg/l	0.89 - 0.90	0.89 - 0.90
Kinematic Viscosity at 40°C,cSt	170 - 190	410 - 460
Kinematic Viscosity at 100°C,cSt	Min. 15.39	Min.27.18
Viscosity Index	Min. 90	Min. 90
Flash Point COC, °C	Min. 200	Min. 200
Pour Point, °C	Max -6	Max -6

10. STABILITY AND REACTIVITY

Stability	Product is stable under normal use conditions
Thermal Decomposition	Carbon monoxide, carbon dioxide, oxides of sulphur and nitrogen organic and inorganic compound may evolve when subject to heat or combustion
Hazardous Polymerisation	Will not occur undeer normal conditions
Incompatible Materials	Strong oxidizing agents. Strong acids

11. TOXICOLOGICAL INFORMATION

Basis	No toxicological data is available for this product. Information is provided based on the addtives, other components and base stock used
Acute Exposure - Oral	LD 50 expected to be above 2000 mg/kg.
Acute Exposure - Skin	LD 50 expected to be above 2000 mg/kg.
Inhaltion	Repeated or prolonged exposure to oil mists may cause irritation
Eye Irritation	Slight irritant
Skin Irritation	Not a skin irritant unless repeated or prolonged contact
Respiratory Irritation	Slight irritant
Carcinogenicity	No data to suggest that product is carcinogenic
Mutagenicity	No data to suggest that product is mutagenic
Other Information	Brief contact with used oil is not expected to have serious effect in humans if he oil is removed thoroughly by washing with soap and water Used engine oils may contain harmful impurities that have accumulate during use. The concentration of such impurities will depend on use and they present risks to health and the environment on disposal. All used oils should be handled with caution and skin contact should be avoided

12. ECOLOGICAL INFORMATION

Basis	No ecological data is available for this product. Information is provided base on the additives, other components and base stock used.
Mobility	Liquid under most environmental conditions. Floats on water. It is absorbeb by soil and will not be mobile
Persistance/ Degradability	Not readily biodegradable. Major constituents are expected to be inherently be inherently biodegradable, but the product contains components that may persist in the environment
Bioaccumulation	Has the potential to bioaccumulate
Ecotoxicity	Poor soluble mixture. Practically non-toxic to aquatic organisms. May caused physical fouling of aquatic organisms

13. DISPOSAL CONSIDERATION

Product Disposal	Used or waste oil should be recycled or disposed off in conformity to local disposal regulations. Contact local authorities for approved disposal contractor
Container Disposal	Empty drums should be completely drained and sent to a drum reconditioner or properly disposed of. Non-reusable small containers should be recycled ordisposed of. Ensure conformity to local disposal regulations.

14. TRANSPORT INFORMATION

General Information	Not dangerous for conveyance under UN, IMO, ADR/RID and IATA.ICAO codes

15. REGULATORY INFORMATION

Not Applicable.

16. OTHER INFORMATION

The above information is based on data of which we are aware and is believed to be correct as of the date hereof. Since the information contained herein may be unfamiliar and since data made available susequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the result of its use. This information is furnished upon the condition that the person receiving it shall make his own determination of the suitability of the material for his particular

purpose. Therefore, no warranty either expressed or implied of merchantability or fitness for particular purpose is made with pespect to the product or the information contained herein.

PETRO RENOVA

Automotive Gear Oil

Petro Renova are designed for use in wide variety of automotive axle units subjected to heavy duty conditions. Petro Renova are formulated from high quality base oil selected additives such as anglamol, an Extreme Pressure additives of sulphur phosporus type. Petro Renova are complied with API Service Classification GL-5.

Applications :

- Automotive Transmissions
  Designed for heavy duty axles and other automotive transmission units operating under high speed/shock load, high speed/low torque conditions.
- Other Using
  Recommended for lubrication of heavy duty hypoid gear on final drive transmission of motor vehicles

Performance Features:

- Comprehensive Additives Package
  Specially selected additives impart good anti-wear, anti-rush characteristic and oxidant stability. Formulated from high quality selected additives such as anglamol, an extreme pressure additives of sulphur phosporus type.
- High Quality Base Oil
- Complied with API Service Classification GL-5

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