

MATERIAL SAFETY DATA SHEET

1. PRODUCT IDENTIFICATION AND COMPANY

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| Product Name | PETRO HYDRO 32 |
| Product Type | Hydraulic Oil |
| Company | PT. PETROMITRA PACIFIC INTERNUSA ALAM SUTERA TOWN CENTER BLOK 10 H NO.18 TANGERANG 151436 Tlp : (021) 29211565 Fax : (021) 29211566 |

2. COMPOSITION

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| Mineral Oil Content | 97.4% |
| Additives Content | 2.6% |

3. HAZARDS IDENTIFICATION

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| 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

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| 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

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| Flash Point | >170°C |
| Flammable Limits | LEL 1.0 UEL 6.0 |
| Autoignition Temp | >220°C |
| 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 release and contain spill if possible. Cover spill with generous amount of inert absorbent material such as sand or 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

7. HANDLING AND STORAGE

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| Handling | Handling temperatures should not exceed 70°C. 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 50°C. Odorous and toxic fumes may be evolved from decomposition of product if stored above the safe temperature. |

8. EXPOSURE CONTROL/PERSONAL PROTECTION

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| Exposure Limits | Threshold Limit Values for oil mist is recommended to be controlled at 5 mg/m ³ 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 if splashes are likely to occur |

9. PHYSICAL AND CHEMICAL PROPERTIES

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| Physical State | Liquid |
| Colour | Clear & Bright |
| Odour | Characteristic mineral oil |
| Vapour Pressure | <0.5 Pa at 20°C |
| Density | 0.87 g/cm ³ at 15°C |
| Kinematic Viscosity @ 40°C | 32 cSt |
| Kinematic Viscosity @ 100°C | 5,3 cSt |
| Pour Point | -12 °C |
| Flash Point | > 170 °C |
| pH of undiluted product | Not available |
| Auto-ignition temperature | > 200°C |
| Solubility in water | Negligible |

10. STABILITY AND REACTIVITY

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| Stability | Product is stable under normal use conditions |
| Thermal Decomposition | Carbon monoxide, carbon dioxide, oxides of sulphur and nitrogen a 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

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| Basis | No toxicological data is available for this product. Information is provided based on the additives, 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. |
| Inhalation | 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 the 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

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| Basis | No ecological data is available for this product. Information is provided based on the additives, other components and base stock used. |
| Mobility | Liquid under most environmental conditions. Floats on water. It is absorbed by soil and will not be mobile |
| Persistence/ | Not readily biodegradable. Major constituents are expected to 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 cause physical fouling of aquatic organisms |

13. DISPOSAL CONSIDERATION

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| 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 or disposed of. Ensure conformity to local disposal regulations. |

14. TRANSPORT INFORMATION

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| General Information | Not dangerous for conveyance under UN, IMO, ADR/RID and IATA/ICAO codes |
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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 subsequent 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 respect to the product or the information contained herein.