

**EMERGENCY CALLS:**

Manager Technical Services

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Revision 4

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**M A T E R I A L   S A F E T Y   D A T A   S H E E T****1- IDENTIFICATION****Product Name : PETROMIN TRANSFORMER OIL IEC 60296****2- COMPOSITION**

**Additivated Lubricating Oil:** Complex combinations of naphthenic hydrocarbons obtained (from vacuum distillation) by solvent extraction and dewaxing processes; mainly consisting of saturated hydrocarbons having carbon numbers C<sub>15</sub>-C<sub>50</sub> and special additive package incorporated in small quantity.

Chemical Name:	CAS No.:	EEC No.:	Conc %:	Symbols/Phrases
Hydrotreated Light Naphthenic Distillate.	64742-53-6	265-156-6	99,5-100	-

**3- HAZARDS****Human:**

**Inhalation** - Inhalation of vapours and/or mists might irritate respiratory tract. Short-term exposures to vapours and oil mists cause irritation of the respiratory tract. Long-term exposures can cause lung fibrosis preceded by broncho-pulmonary symptoms in concentrations over 5 mg/m<sup>3</sup> (TLV).

**Ingestion** - Low oral toxicity: toxicity by ingestion : Grade O; LD 50 > 15g/Kg (oral-rat). Intestinal absorption is very low. Accidental intake of large amounts causes irritation of the gastrointestinal tract, nausea, vomiting and diarrhoea.

**Contact/Skin** - Low skin toxicity: LD 50 > 5g/Kg (rat), level considered to be harmless in short-term exposures. Long-term exposures produce smarting, redness, irritation and dermatitis due to defatting of the keratyn layer. No skin sensitization has been registered in animal tests or human cases. Prolonged skin contact will cause defatting and possible irritation. Eye contact might cause irritation.

**Eyes** - Repeated exposure to vapours or liquid cause irritation.

**Environment:**

Combustible. Slow biodegradation, the product will remain for long time in the environment. Risk for contamination of earth, soil and water. Lighter than water; it can obstruct sewers and water intakes.

**4- FIRST-AID**

<b>Skin</b>	: Flush with plenty of soap and water
<b>Eyes</b>	: Flush with plenty of water for at least 15 minutes
<b>Ingestion</b>	: Do not induce vomiting. If conscious, have the victim drink water or milk.
<b>Inhalation</b>	: Remove the victim to fresh air; administer oxygen if necessary. Call for medical attention.

**5- FIRE PRECAUTIONS**

**Extinguishing Media  
Suitable**

: Foams, dry chemicals, CO<sub>2</sub>, hylons and powders

<b>Non-suitable</b>	: Water, may be ineffective
<b>Protection Equipment</b>	: Heat resistant suit and gloves. Self-contained breathing apparatus.
<b>Special Risks</b>	: NP
<b>Special Measures</b>	: Not required
<b>Combustion Products</b>	: CO <sub>2</sub> , H <sub>2</sub> O, CO (in defect of air); nitrogen and sulfur oxides

## 6- ACCIDENT PRECAUTIONS

### Precautions for the Environment :

Hazard of physical fouling to coasts, soils, etc. due to low solubility and high viscosity of the oils. Avoid the material entering water intakes.

### Clean-up Method:

Treat as an accidental oil spill or leak; avoid dispersion of the material with mechanical barriers. Remove with physical or chemical treatment.

<b>Personal Precautions</b>	: Avoid prolonged contact with contaminated clothes or with the product
<b>Personal Protection</b>	: Gloves and goggles or face shield

## 7- STORAGE AND HANDLING

### Handling:

<b>General Precautions</b>	: Avoid prolonged contact and inhalation of mists and vapours from heated oils
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<b>Specific Conditions</b>	: Safety goggles and gloves should be used
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### Storage:

<b>Storage Conditions</b>	: Containers properly labelled and sealed, placed in cool and well ventilated areas.
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<b>Incompatible Materials</b>	: Strong oxidants
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<b>Dangerous Practices</b>	: NP
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## 8- PERSONAL PROTECTION

### Inhalation:

**Low vapour pressure:** The product is slightly volatile at room temperature and does not present special risks. In presence of heated oils, wear protective masks to avoid vapour inhalation.

<b>Skin</b>	: Gloves
<b>Eye</b>	: Safety goggles
<b>Other</b>	: Showers and eye-washers in the working area
<b>Specific Hygiene Measures</b>	: Good work practices to minimize exposure and adoption of good personal hygiene measures avoid the presence of skin rash and oil acne
<b>Exposure Controls</b>	: TLV (typical base oil) = 0.016 ppm at 20°C (saturated vapour concentration); TLV/TWA (ACGIH) = 5mg/m <sup>3</sup> (oil mist); TLV/STEL (ACGIH) = 10mg/m <sup>3</sup> (oil mist)

## 9- PHYSICAL AND CHEMICAL PROPERTIES

<b>Color</b>	: Light Amber
<b>Specific Gravity (at 15°C)</b>	: 0.886 (typical)
<b>Flash Point</b>	: 146° C
<b>Explosive Properties</b>	: NP
<b>Oxidizing Properties</b>	: NP
<b>Water Solubility</b>	: Insoluble (100 ppm max. H <sub>2</sub> O)
<b>Solubility</b>	: Organic solvents
<b>Vapour Pressure</b>	: 160 Pascal
<b>Viscosity at 40°C</b>	: 9.6 cSt (typical)
<b>Pour Point</b>	: -45 °C (typical)

## 10- STABILITY AND REACTIVITY

<b>Stability</b>	: Stable at room temperature, start to decompose at 280 °C
<b>Polymerization Risk</b>	: NP
<b>Materials to Avoid</b>	: Strong oxidants react with oils and organic materials
<b>Hazardous Decomposition Products</b>	: NP

**Condition to Avoid** : Exposure to open flames, as Auto ignition temperature 270 °C

### 11- TOXICOLOGICAL INFORMATION

**Routes of Exposure** : Contact with skin, eyes and inhalation. Ingestion is not frequent.  
**Acute and Chronic Effects** : No malignant acute effects are known. Chronic effects due to repeated exposures are irritation, dermatitis and acne.  
**Carcinogenicity** : NP  
**Reproductive Toxicity** : No evidences  
**Medical Conditions which Increase Hazard to Exposure** : Respiratory tract deficiencies and dermatologic problems

### 12- ECOLOGICAL INFORMATION

#### **Pollutant Potential:**

**Persistence and Degradability-** The material is oily and viscous and floats on water. It presents a high physical fouling potential, mainly in sea-spills; by contact, destroys small aquatic organisms and makes living difficult for upper organisms, not allowing the sunlight to reach underlying marine ecosystems, affecting its normal development.

**Movility/Bioaccumulative Potential-** It does not present bioaccumulative problems in living organisms or incidence in the trophic food chain, although it may cause long-term adverse effects in the aquatic environment, due to its high physical fouling potential.

#### **Ecotoxicological Effect:**

Dangerous for aquatic life in high concentrations (spills).

### 13- DISPOSAL

**Disposal Methods (surplus)** : Recycling and recovery of base oils when possible  
**Disposal (waste)** : Only in specific prepared and controlled areas. Avoid releasing waste oils to sewers because they can destroy water treatment plant microorganisms. Do not attempt to clean containers since residue is difficult to remove; dispose in a safe way.  
**Handling (waste)** : Labelled and sealed containers. Avoid direct contact with waste oils.

### 14- TRANSPORTATION

**Special Precautions** : Stable at room temperature and during transport. Store in cool well ventilated areas.  
**UN Number** : NP  
**ADR(TPC)/RID(TPF) Classification** : -  
**IATA-DER Classification** : -  
**IMDG Classification** : -

### 15- Regulatory Information

**EU (European) REGULATIONS:** This product does not need to be labeled in accordance with EC directives and is not

known to be a dangerous good internationally.

**REACH:** This product is pre-registered with ECHA.

**Labelling:**

Hazard Label: None

Danger Symbol: None

Phrases: None

**Restrictions on use:** This product has poor compatibility with certain types of rubber; therefore verify material compatibility before using.

#### **OTHER REGULATIONS**

**Canada (WHMIS)** Not listed on the Canadian Controlled Product Ingredient Disclosure and is compliant with Controlled Products Regulation

**United States Federal Regulations:**

CERCLA / SARA

302/303/304 Categories: Extremely Hazardous Substances None

311/312 Categories: Immediate (Acute) Health Effects No

Delayed (Chronic) Health Effects No

Fire Hazard No

Sudden Release of Pressure Hazard No

Reactivity Hazard No

313 Categories: Toxic Chemicals (40 CFR 372) None

Clean Air Act: Hazardous Air Pollutants (HAPS) None

Ozone Depleting Compounds (ODC) None

Clean Water Act: If spilled into navigable waters it is reportable to National Response Center, 800-424-8802

(40 CFR 116; 401.15) Reportable Quantity = Oil Sheen present on navigable water surface

OSHA (29 CFR 1910): This product is not hazardous under Hazard Communication Standard 29 CFR 1910.1200

RCRA (40 CFR 261.33) This product does not meet hazardous waste criteria.

EPA/TSCA Inventory: The components of this product are listed on the EPA/TSCA inventory of chemicals.

CAS No. 64742-53-6 / 64742-54-7

**United States - State Regulatory Lists:**

California Prop 65 No Proposition 65 chemicals exist in this product, no labeling required.

Florida No listed ingredients are present

Massachusetts RTK No listed ingredients are present

Minnesota RTK No listed ingredients are present

New Jersey RTK Lists petroleum oil, but this product does not contain hazardous ingredients.

Pennsylvania RTK Lists petroleum oil, but this product does not contain hazardous ingredients greater than 3%.

Illinois DOL TSL No listed ingredients are present

CONEG Metals: Since cadmium, chromium, lead and mercury are not detectable and it does not exceed

100 ppm total in this product, it is compliant with CONEG Metals regulation.

**Foreign / International Inventories:** The components of this product are listed under the following foreign inventories:

European Union's EINECS No. 265-156-6 / 265-157-1

USA's TSCA CAS No. 64742-53-6 / 64742-54-7

Korea's ECL No. KE-12552 / KE-12546

Australia's AICS No. 64742-53-6 / 64742-54-7

Canada's DSL No. 64742-53-6 / 64742-54-7

Philippines' PICCS

New Zealand's NzIoC (ERMA)

Japan's MITI or NITE

Sweden's KemI

**Section 16 - Other Information**

**Relevant R-Phrases & Hazards**

**EC Label: None (Non-hazardous)**

**Hazard Symbol: None**

**R-Phrase: None**

**S-Phrase: None**

**Training recommendations:** Person placing substance on market shall ensure that competent persons have received appropriate training.

**Restrictions on use (uses advised against):** This product has poor compatibility with certain types of rubber; therefore verify material compatibility before using.

*This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is to the best of our knowledge and belief, accurate and reliable as of the date indicated. However no representation, warranty or guarantee is made as to its accuracy, reliability or completeness.*

*It is the user's responsibility to satisfy himself as to the suitability and completeness of such information for his own particular use.*