1. MATERIAL AND SUPPLY COMPANY IDENTIFICATION

Product name: AMBRA AX F 80W-90

Recommended use: Lubricant for transmission system. This product should not be used for other purposes than those specified without the advice of an expert.

Supplier: PETRONAS LUBRICANTS AUSTRALIA PTY LIMITED
ABN: 88 005 681 916
Street Address: Suite 2, Level 6, Harbourside Business Park
85 George Street 485C Rosebank Road
Parramatta, NSW 2150 Avondale, Auckland
Australia New Zealand
Telephone: +(61) 2 9689 3265 +649 828 3255
Facsimile: +(61) 2 9687 6892 +649 830 3643

Emergency Telephone number: Australia 1800 638 556 (24hr)
New Zealand 0800 154 166 (24hr)

2. HAZARDS IDENTIFICATION

Based on available information, this material is not classified as hazardous according to criteria of Safe Work Australia.

Signal Word

Hazard Classifications
Acute Hazard to the Aquatic Environment - Category 2
Chronic Hazard to the Aquatic Environment - Category 2

Hazard Statement
H411 Toxic to aquatic life with long lasting effects.

Prevention Precautionary Statement
P273 Avoid release to the environment.

Response Precautionary Statement
P391 Collect spillage.

Storage Precautionary Statement
Not allocated

Disposal Precautionary Statement
P501 Dispose of contents/container in accordance with local, regional, national and international regulations.

Based on available information, this material is not classified as hazardous according to criteria of NOHSC.
Poison Schedule: Not Applicable

DANGEROUS GOOD CLASSIFICATION

Classified as Dangerous Goods by the criteria of the "Australian Code for the Transport of Dangerous Goods by Road & Rail" and the "New Zealand NZS5433: Transport of Dangerous Goods on Land".

Dangerous Goods Class: 9

3. COMPOSITION INFORMATION

<table>
<thead>
<tr>
<th>CHEMICAL ENTITY</th>
<th>CAS NO</th>
<th>PROPORTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oleylamine</td>
<td>112-90-3</td>
<td>&lt;1 %</td>
</tr>
<tr>
<td>Reaction product of 1,3,4-thiadiazolidine-2,5-dithione,formaldehyde and phenol, heptyl derivs.</td>
<td></td>
<td>&lt;1 %</td>
</tr>
<tr>
<td>Reaction products of 4-methyl-2-pentanol and diphosphorus pentasulfide, propoxylated, esterified with diphosphorus pentaoxide, and salted by amines, C12-14-tert-alkyl</td>
<td></td>
<td>&lt;5 %</td>
</tr>
<tr>
<td>Reaction products of alcohols, C14-18, C18 unsat., esterified with phosphorus pentoxide and salted with amines, C12-14,-tert-alkyl</td>
<td></td>
<td>&lt;5 %</td>
</tr>
<tr>
<td>Ingredients determined to be non-hazardous</td>
<td></td>
<td>Balance</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

If poisoning occurs, contact a doctor or Poisons Information Centre (Phone Australia 131 126, New Zealand 0800 764 766).

Inhalation: Remove victim from exposure - avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. Seek medical advice if effects persist.

Skin Contact: If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. If swelling, redness, blistering or irritation occurs seek medical assistance.

Eye contact: If in eyes wash out immediately with water. In all cases of eye contamination it is a sensible precaution to seek medical advice.

Ingestion: Rinse mouth with water. If swallowed, do NOT induce vomiting. Give a glass of water to drink. Never give anything by the mouth to an unconscious patient. If vomiting occurs give further water. Seek medical advice.

Notes to physician: Treat symptomatically.

5. FIRE FIGHTING MEASURES

Hazchem Code: •3Z

Suitable extinguishing media: If material is involved in a fire use alcohol resistant foam or dry agent (carbon dioxide, dry chemical powder).

Specific hazards: Combustible material.

Fire fighting further advice: On burning or decomposing may emit toxic fumes. Fire fighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to vapour or products of combustion or decomposition.
6. ACCIDENTAL RELEASE MEASURES

SMALL SPILLS
Wear protective equipment to prevent skin and eye contamination. Avoid inhalation of vapours or dust. Wipe up with absorbent (clean rag or paper towels). Collect and seal in properly labelled containers or drums for disposal.

LARGE SPILLS
Clear area of all unprotected personnel. Slippery when spilt. Avoid accidents, clean up immediately. Wear protective equipment to prevent skin and eye contamination and the inhalation of vapours. Work up wind or increase ventilation. Contain - prevent run off into drains and waterways. Use absorbent (soil, sand or other inert material). Collect and seal in properly labelled containers or drums for disposal. If contamination of crops, sewers or waterways has occurred advise local emergency services.

Dangerous Goods – Initial Emergency Response Guide No: 47

7. HANDLING AND STORAGE

Handling: Avoid eye contact and repeated or prolonged skin contact. Avoid inhalation of vapour, mist or aerosols.

Storage: Store in a cool, dry, well-ventilated place and out of direct sunlight. Store away from foodstuffs. Store away from incompatible materials described in Section 10. Store away from sources of heat and/or ignition. Keep container standing upright. Keep containers closed when not in use - check regularly for leaks.

This material is classified as a Class 9 Miscellaneous Dangerous Good as per the criteria of the "Australian Code for the Transport of Dangerous Goods by Road & Rail" and/or the "New Zealand NZS5433: Transport of Dangerous Goods on Land" and must be stored in accordance with the relevant regulations.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

National occupational exposure limits:

<table>
<thead>
<tr>
<th></th>
<th>TWA</th>
<th>STEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oil mist, refined mineral</td>
<td>ppm</td>
<td>mg/m³</td>
</tr>
<tr>
<td></td>
<td>-</td>
<td>5</td>
</tr>
</tbody>
</table>

As published by Safe Work Australia.

TWA - The time-weighted average airborne concentration over an eight-hour working day, for a five-day working week over an entire working life.

STEL (Short Term Exposure Limit) - the average airborne concentration over a 15 minute period which should not be exceeded at any time during a normal eight-hour workday.

These Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept too as low a level as is workable. These exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

If the directions for use on the product label are followed, exposure of individuals using the product should not exceed the above standard. The standard was created for workers who are routinely, potentially exposed during product manufacture.

**Biological Limit Values:** As per the "National Model Regulations for the Control of Workplace Hazardous Substances (Safe Work Australia)" the ingredients in this material do not have a Biological Limit Allocated.
Engineering Measures: Ensure ventilation is adequate to maintain air concentrations below Exposure Standards. Use only in well ventilated areas. Use with local exhaust ventilation or while wearing appropriate respirator.

Personal Protection Equipment: SAFETY SHOES, OVERALLS, GLOVES, SAFETY GLASSES.

Wear safety shoes, overalls, gloves, safety glasses. Available information suggests that gloves made from nitrile rubber, neoprene should be suitable for intermittent contact. However, due to variations in glove construction and local conditions, the user should make a final assessment. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using.

Hygiene measures: Keep away from food, drink and animal feeding stuffs. When using do not eat, drink or smoke. Wash hands prior to eating, drinking or smoking. Avoid contact with clothing. Avoid eye contact and repeated or prolonged skin contact. Avoid inhalation of vapour, mist or aerosols. Ensure that eyewash stations and safety showers are close to the workstation location.

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td>Liquid</td>
</tr>
<tr>
<td>Colour</td>
<td>N Av</td>
</tr>
<tr>
<td>Odour</td>
<td>N Av</td>
</tr>
<tr>
<td>Solubility in water</td>
<td>Insoluble</td>
</tr>
<tr>
<td>Density</td>
<td>0.90 g/cm³ @ 15°C (typical)</td>
</tr>
<tr>
<td>Relative Vapour Density (air=1)</td>
<td>N Av</td>
</tr>
<tr>
<td>Vapour Pressure (20 °C)</td>
<td>N Av</td>
</tr>
<tr>
<td>Flash Point (°C)</td>
<td>&gt;196</td>
</tr>
<tr>
<td>Flammability Limits (%)</td>
<td>N Av</td>
</tr>
<tr>
<td>Pour Point/Range (°C)</td>
<td>N Av</td>
</tr>
<tr>
<td>Boiling Point/Range (°C)</td>
<td>300 (initial)</td>
</tr>
<tr>
<td>pH</td>
<td>N App</td>
</tr>
<tr>
<td>Viscosity</td>
<td>19 mm²/s @ 100°C (typical)</td>
</tr>
<tr>
<td>Total VOC (g/Litre)</td>
<td>N Av</td>
</tr>
</tbody>
</table>

(Typical values only - consult specification sheet)

N Av = Not available, N App = Not applicable

10. STABILITY AND REACTIVITY

Chemical stability: This material is thermally stable when stored and used as directed.

Conditions to avoid: Elevated temperatures and sources of ignition.

Incompatible materials: Oxidising agents.

Hazardous decomposition products: Oxides of carbon and nitrogen, smoke and other toxic fumes.

Hazardous reactions: No known hazardous reactions.

11. TOXICOLOGICAL INFORMATION

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

Acute Effects
**Inhalation:** Material may be an irritant to mucous membranes and respiratory tract.

**Skin contact:** Contact with skin may result in irritation.

**Ingestion:** Swallowing can result in nausea, vomiting and irritation of the gastrointestinal tract.

**Eye contact:** May be an eye irritant.

**Acute toxicity**

**Inhalation:** This material has been classified as non-hazardous. Acute toxicity estimate (based on ingredients): >20 mg/L

**Skin contact:** This material has been classified as non-hazardous. Acute toxicity estimate (based on ingredients): >2,000 mg/Kg

**Ingestion:** This material has been classified as non-hazardous. Acute toxicity estimate (based on ingredients): >2,000 mg/Kg

**Corrosion/Irritancy:** Eye: this material has been classified as not corrosive or irritating to eyes. Skin: this material has been classified as not corrosive or irritating to skin.

**Sensitisation:** Inhalation: this material has been classified as not a respiratory sensitiser. Skin: this material has been classified as not a skin sensitiser.

**Aspiration hazard:** This material has been classified as non-hazardous.

**Specific target organ toxicity (single exposure):** This material has been classified as non-hazardous.

**Chronic Toxicity**

**Mutagenicity:** This material has been classified as non-hazardous.

**Carcinogenicity:** This material has been classified as non-hazardous.

**Reproductive toxicity (including via lactation):** This material has been classified as non-hazardous.

**Specific target organ toxicity (repeat exposure):** This material has been classified as non-hazardous.

---

### 12. ECOLOGICAL INFORMATION

Avoid contaminating waterways.

**Acute aquatic hazard:** This material has been classified as a Category Acute 2 Hazard. Acute toxicity estimate (based on ingredients): 1 - 10 mg/L

**Long-term aquatic hazard:** This material has been classified as a Category Chronic 2 Hazard. Non-rapidly or rapidly degradable substance for which there are adequate chronic toxicity data available OR in the absence of chronic toxicity data, Acute toxicity estimate (based on ingredients): 1 - 10 mg/L, where the substance is not rapidly degradable and/or BCF ≥ 500 and/or log Kow ≥ 4.

**Ecotoxicity:** No information available.

**Persistence and degradability:** No information available.

**Bioaccumulative potential:** No information available.

**Mobility:** No information available.
13. DISPOSAL CONSIDERATIONS

Persons conducting disposal, recycling or reclamation activities should ensure that appropriate personal protection equipment is used, see "Section 8. Exposure Controls and Personal Protection" of this SDS.

If possible material and its container should be recycled. If material or container cannot be recycled, dispose in accordance with local, regional, national and international Regulations.

14. TRANSPORT INFORMATION

ROAD AND RAIL TRANSPORT
Classified as Dangerous Goods by the criteria of the "Australian Code for the Transport of Dangerous Goods by Road & Rail" and the "New Zealand NZS5433: Transport of Dangerous Goods on Land".

Australian Special Provisions; AU01: Environmentally Hazardous Substances meeting the description of UN 3077 or UN 3082 are not subject to this Code (ADG 07) when transported by road or rail in;

(a) packagings that do not incorporate a receptacle exceeding 500 Kg (L); or
(b) IBCs.

UN No: 3082
Dangerous Goods Class: 9
Packing Group: III
Hazchem Code: 3Z
Emergency Response Guide No: 47

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (OLEYLAMINE AND REACTION PRODUCTS OF 4-METHYL-2-PENTANOL AND DIPHOSPHORUS PENTASULFIDE, PROPOXYLATED, ESTERIFIED WITH DIPHOSPHORUS PENTAOXIDE, AND SALTED BY AMINES, C12-14- TERT-ALKYL)

Segregation Dangerous Goods: Not to be loaded with explosives (Class 1). Note 1: Materials that are fire risks are incompatible with oxidising agents (Class 5.1) or organic peroxides (Class 5.2). Exemptions may apply.

MARINE TRANSPORT
Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.

UN No: 3082
Dangerous Goods Class: 9
Packing Group: III

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (OLEYLAMINE AND REACTION PRODUCTS OF 4-METHYL-2-PENTANOL AND DIPHOSPHORUS PENTASULFIDE, PROPOXYLATED, ESTERIFIED WITH DIPHOSPHORUS PENTAOXIDE, AND SALTED BY AMINES, C12-14- TERT-ALKYL)
AIR TRANSPORT
 Classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.

UN No: 3082
Dangerous Goods Class: 9
Packing Group: III
Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (OLEYLAMINE AND REACTION PRODUCTS OF 4-METHYL-2-PENTANOL AND DIPHOSPHORUS PENTASULFIDE, PROPOXYLATED, ESTERIFIED WITH DIPHOSPHORUS PENTAOXIDE, AND SALTED BY AMINES, C12-14- TERT-ALKYL)

15. REGULATORY INFORMATION

This material/constituent(s) is covered by the following requirements:
• All components of this product are listed on or exempt from the Australian Inventory of Chemical Substances (AICS).
• All components of this product are listed on or exempt from the New Zealand Inventory of Chemical (NZIoC).


16. OTHER INFORMATION

Reason for issue: Format change

This information was prepared in good faith from the best information available at the time of issue. It is based on the present level of research and to this extent we believe it is accurate. However, no guarantee of accuracy is made or implied and since conditions of use are beyond our control, all information relevant to usage is offered without warranty. The manufacturer will not be held responsible for any unauthorised use of this information or for any modified or altered versions.

If you are an employer it is your duty to tell your employees, and any others that may be affected, of any hazards described in this sheet and of any precautions that should be taken.

Safety Data Sheets are updated frequently. Please ensure you have a current copy.