

SAFETY DATA SHEET

According to Directive 67/548/EEC & Directive 1999/45/EC

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

GHS Product Identifier	Not applicable.
Chemical Name	Not applicable.
Trade name	P2AO 350 Oil
CAS No.	Mixture
EINECS No.	Mixture

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified use(s)	Synthetic Bearing Lubricant
Uses advised against	None.

1.3 Details of the supplier of the safety data sheet

Company Identification	Permawick Company 3110 Permawick Drive Columbus, IN, 47201
Telephone	+1 (812) 376-0703
Fax	+1 (812) 372-1410
E-Mail (competent person)	sales@permawick.com
Only Representative	Experien Chemical Services (Europe) Limited PO Box 170 Thirsk YO7 9AN UK
Telephone	+44 7791 573385 (UK 9am to 5pm)

1.4 Emergency telephone number

Emergency Phone No.	Monday - Friday, 8 am – 4:30 p.m. (EST) +1 (812) 376-0703 CHEMTREC 24 hr. +1 (703) 527-3887 (Collect call accepted)
---------------------	--

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Directive 67/548/EEC & Directive 1999/45/EC	R52/53
---	--------

2.2 Label elements

Hazard Symbol	None
Risk Phrases	R52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Safety Phrases	S29: Do not empty into drains. S57: Use appropriate container to avoid environmental contamination. S61: Avoid release to the environment. Refer to special instructions/Safety Data Sheets.

2.3 Other hazards

Not classified as PBT or vPvB.

2.4 Additional Information

May produce an allergic reaction in persons already sensitised.

P2AO 350 Oil

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

Hazardous ingredient(s)	%W/W	CAS No.	REACH Registration No.	Classification According to Regulation (EC) No 1278/2008 (CLP)	Classification According to 67/548/EEC
tris(methylphenyl) phosphate	0 – 1.0	1330-78-5	Not applicable^	Repr. 2 Aquatic Acute 1 Aquatic Chronic 1	Xn; R62 N; R50/53
1-H benzotriazole-1-methanamine, N,N-bis(2-ethylhexyl)-methyl-	0 – 0.1		Not applicable^	Skin Irrit. 2 Skin Sens. 1 Aquatic Chronic 2	Xi; R38 R43 N;R51/53

Other Substances in the product which may present a health or environmental hazard, or which have been assigned occupational exposure limits, are detailed below.: None

^ Not yet subject to registration or is exempt.

3.3 Additional Information

For full text of R phrases see section 16.

SECTION 4: FIRST AID MEASURES



4.1 Description of first aid measures

Inhalation	Unlikely to be required but if necessary treat symptomatically.
Skin Contact	Wash affected skin with soap and water.
Eye Contact	Eyes should be washed with plenty of water. If symptoms occur obtain medical attention.
Ingestion	Unlikely to be required but if necessary treat symptomatically.

4.2 Most important symptoms and effects, both acute and delayed

None

4.3 Indication of any immediate medical attention and special treatment needed

None

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Extinguishing media

-Suitable Extinguishing Media	Extinguish with waterspray, dry chemical, sand or carbon dioxide.
-Unsuitable Extinguishing Media	None anticipated.

5.2 Special hazards arising from the substance or mixture

This product may give rise to hazardous fumes in a fire.

5.3 Advice for fire-fighters

A self contained breathing apparatus and suitable protective clothing should be worn in fire conditions.

P2AO 350 Oil

SECTION 6: ACCIDENTAL RELEASE MEASURES

- | | | |
|------------|--|--|
| 6.1 | Personal precautions, protective equipment and emergency procedures | Avoid skin contact. Avoid contact with eyes. |
| 6.2 | Environmental precautions | Use appropriate container to avoid environmental contamination. |
| 6.3 | Methods and material for containment and cleaning up | Contain and cover spilled substance with dry sand or earth or other suitable dry material. Transfer to a container for disposal or recovery. |
| 6.4 | Reference to other sections | None |
| 6.5 | Additional Information | None |

SECTION 7: HANDLING AND STORAGE

- | | | |
|------------|---|--|
| 7.1 | Precautions for safe handling | Avoid skin contact. Avoid contact with eyes. |
| 7.2 | Conditions for safe storage, including any incompatibilities | |
| | -Storage Temperature | Store at room temperature. |
| | -Incompatible materials | Strong oxidising agents. |
| 7.3 | Specific end use(s) | Lubricating agent |

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

- 8.1** Control parameters
- 8.1.1** Occupational exposure limits

SUBSTANCE.	CAS No.	LTEL (8 hr TWA ppm)	LTEL (8 hr TWA mg/m ³)	STEL (ppm)	STEL (mg/m ³)	Note:
None	----	----	----	----	----	

Biological limit value				
Limit value type (country of origin)	SUBSTANCE.	CAS No.	Biological limit value	Note:
None known	----	----	----	----

- | | | |
|--------------|--|------------------------|
| 8.1.2 | Recommended monitoring method | None |
| 8.2 | Exposure controls | |
| 8.2.1 | Appropriate engineering controls | Not normally required. |
| 8.2.2 | Personal protection equipment | |
| | Eye/face protection | Safety spectacles. |
| | Skin protection (Hand protection/ Other) | Not normally required. |



P2AO 350 Oil

Respiratory protection



Not normally required.

Thermal hazards

Not normally required.

8.2.3 Environmental Exposure Controls

Use appropriate container to avoid environmental contamination. Disposal should be in accordance with local, state or national legislation. Consult an accredited waste disposal contractor or the local authority for advice.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	Viscous liquid.
Colour.	Amber, Clear.
Odour	Faint Ester-like.
Odour threshold (ppm)	Not available
pH (Value)	Not available
Melting point (°C) / Freezing point (°C)	Not available
Boiling point/boiling range (°C):	Not determined.
Flash point (°C)	232 [Open cup]
Evaporation rate	Not applicable
Flammability (solid, gas)	Not applicable
Explosive limit ranges	Not applicable
Vapour pressure (Pascal)	< 1
Vapour density (Air=1)	> 1
Density (g/ml)	0.83
Solubility (Water)	Insoluble.
Solubility (Other)	Not available
Partition coefficient (n-Octanol/water)	Not available
Auto ignition point (°C)	>282
Decomposition temperature (°C)	Not available
Kinematic Viscosity (cSt) @ 40°C	68 (Listed in: Product specification)
Explosive properties	Not explosive.
Oxidising properties	Not oxidising.

9.2 Other information

Not available.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity	Stable under normal conditions.
10.2 Chemical stability	Stable.
10.3 Possibility of hazardous reactions	None anticipated.
10.4 Conditions to avoid	None
10.5 Incompatible materials	Oxidizers
10.6 Hazardous Decomposition Product(s)	Carbon monoxide, Carbon dioxide

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

11.1.1 Substances

Not applicable

11.1.2 Mixtures

Acute toxicity	Not available.
Irritation	Not available.
Corrosivity	Not available.

P2AO 350 Oil

Sensitisation	Not available.
Repeated dose toxicity	Not available.
Carcinogenicity	Not available.
Mutagenicity	Not available.
Toxicity for reproduction	Not available.

11.1.3 Substances in preparations / mixtures

1-H benzotriazole-1-methanamine, N,N-bis(2-ethylhexyl)-methyl- (CAS No.94270-86-7)

Acute toxicity	
-Ingestion	No data
-Inhalation	No data
-Dermal	No data
-Irritation	May cause irritation.

Sensitisation	Sensitizer
Repeated dose toxicity	No data
Mutagenicity	No data
Carcinogenicity	No data
Toxicity for reproduction	No data

tris(methylphenyl) phosphate (CAS No. 1330-78-5)

Acute toxicity	
-Ingestion	LD50 > 20,000 mg/kg (rat)
-Inhalation	LC50 > 11.1 mg/l (rat) (1 hour(s))
-Dermal	LD50 3.7 g/kg (rabbit)
-Irritation	Slightly irritant (Skin). Non-irritant to rabbit eyes.
Sensitisation	It is not a skin sensitiser.
Repeated dose toxicity	Oral: NOAEL = 1000 mg/kg (rat)
Mutagenicity	Negative
Carcinogenicity	No data
Toxicity for reproduction	Positive
Developmental Toxicity	LOAEL = 20 mg/kg (Developmental) NOEL = 20 mg/kg (Maternal)

11.2 Other information None known.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity -

Substances in preparations / mixtures

1-H benzotriazole-1-methanamine, N,N-bis(2-ethylhexyl)-methyl- (CAS No.94270-86-7)

Acute toxicity	No data
Long Term Toxicity	No data

tris(methylphenyl) phosphate (CAS No. 1330-78-5)

Acute toxicity	Fish LC50 = 0.06 mg/l (96 hour) (<i>Rainbow trout</i>) Fish LC50 = 44.8 mg/l (96 hour) (<i>Fathead minnow</i>) Aquatic invertebrates: EC50 = 146 µg/l (48 hour) (<i>D. magna</i>) Algae EL50 > 2500 µg/l (72 hour) / (96 hour) (<i>S. capricornutum</i>)
Long Term	Fish Sublethal Effects = 0.9 mg/l (4 week(s)) (<i>O. mykiss</i>) Aquatic invertebrates: NOEC = 0.011 – 0.019 mg/l (Survival) (<i>G. pseudolimnaeus</i>)

12.2 Persistence and degradability

Not available

12.3 Bioaccumulative potential

Not available

12.4 Mobility in soil

No data

12.5 Results of PBT and vPvB assessment

Not classified as PBT or vPvB.

12.6 Other adverse effects

None known.

P2AO 350 Oil

SECTION 13: DISPOSAL CONSIDERATIONS

- | | |
|-------------------------------------|--|
| 13.1 Waste treatment methods | Disposal should be in accordance with local, state or national legislation. Consult an accredited waste disposal contractor or the local authority for advice. |
| 13.2 Additional Information | None known. |

SECTION 14: TRANSPORT INFORMATION

- | | |
|--|--|
| 14.1 Land transport (ADR/RID)
UN number
Proper Shipping Name
Transport hazard class(es)
Packing Group
Hazard label(s)
Environmental hazards
Special precautions for user | Not classified as dangerous for transport. |
| 14.2 Sea transport (IMDG)
UN number
Proper Shipping Name
Transport hazard class(es)
Packing Group
Marine Pollutant
Special precautions for user | Not classified as dangerous for transport. |
| 14.3 Air transport (ICAO/IATA)
UN number
Proper Shipping Name
Transport hazard class(es)
Packing Group
Environmental hazards
Special precautions for user | Not classified as dangerous for transport. |
| 14.4 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |

SECTION 15: REGULATORY INFORMATION

- | | |
|---|------------------|
| 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture: | |
| 15.1.1 EU regulations | Listed |
| Regulation (EC) 2037/2000 - Dangerous to the ozone layer. | No. |
| Regulation (EC) 850/2004 - Persistent Organic Pollutants | No. |
| Regulation (EC) 689/2008 - Export/Import of Dangerous Chemicals | No. |
| Regulation (EC) 1907/2006 - REACH Authorisations and/or restrictions on use | No. |
| 15.1.2 National regulations | Not established. |
| 15.2 Chemical Safety Assessment | Not applicable |

SECTION 16: OTHER INFORMATION

- | | |
|--|-------------------|
| Classification of the substance or mixture | |
| According to Regulation (EC) No. 1272/2008 (CLP).: | Aquatic Chronic 3 |
| Label elements | |
| GHS Product Identifier | None |
| Hazard pictogram(s) | None |
| Signal word(s) | None |

P2AO 350 Oil

Hazard statement(s)	Harmful to aquatic life with long lasting effects.
Precautionary statement(s)	Avoid release to the environment.
Additional Information	None

The following sections contain revisions or new statements: 1-16.

Risk Phrases and Safety Phrases:

- R38: Irritating to skin.
- R43: May cause sensitization by skin contact.
- R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- R62: Possible risk of impaired fertility.
- R50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- R52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Training advice: None.

Additional Information: None.

Information contained in this publication or as otherwise supplied to Users is believed to be accurate and is given in good faith, but it is for the Users to satisfy themselves of the suitability of the product for their own particular purpose. Permawick gives no warranty as to the fitness of the product for any particular purpose and any implied warranty or condition (statutory or otherwise) is excluded except to the extent that exclusion is prevented by law. Permawick accepts no liability for loss or damage (other than that arising from death or personal injury caused by defective product, if proved), resulting from reliance on this information. Freedom under Patents, Copyright and Designs cannot be assumed.