


**SECTION 1: IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING**

<b>1.1 Product identifier</b>	
GHS Product Identifier	Not applicable.
Chemical Name	Not applicable.
Trade name	AR465PP
CAS No.	Mixture
EINECS No.	Mixture
<b>1.2 Relevant identified uses of the substance or mixture and uses advised against</b>	
Identified use(s)	Synthetic Lubricant
Uses advised against	None.
<b>1.3 Details of the supplier of the safety data sheet</b>	
Company Identification	Permawick Company 3110 Permawick Drive Columbus, IN, 47201 U.S.A.
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)
<b>1.4 Emergency telephone number</b>	
Emergency Phone No.	Monday - Friday, 8 am – 4:30 p.m. (EST) (812) 376-0703 CHEMTREC 24 hr. +1 (703) 527-3887 (Collect call accepted)

**SECTION 2: HAZARDS IDENTIFICATION**

<b>2.1 Classification of the substance or mixture</b>	
Regulation (EC) No. 1272/2008 (CLP).	Aquatic Chronic 3
<b>2.2 Label elements</b>	
Hazard Symbol	
Signal word(s)	Warning
Hazard statement(s)	Harmful to aquatic life with long lasting effects. May cause allergic skin reaction
Precautionary statement(s)	Avoid release to the environment. <b>Prevention:</b> P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray. P272 Contaminated work clothing should not be allowed out of the workplace. P273 Avoid release to the environment. P280 Wear protective gloves. <b>Response:</b> P302 + P352 IF ON SKIN: Wash with plenty of soap and water. P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention. P363 Wash contaminated clothing before reuse. <b>Disposal:</b> P501 Dispose of contents/ container to an approved waste disposal plant.

- 2.3 **Other hazards** Not classified as PBT or vPvB.
- 2.4 **Additional Information** None

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.2 Mixtures

Regulation (EC) No. 1272/2008 (CLP).

Hazardous ingredient(s)	%W/W	EC No. and CAS#	According to Regulation (EC) No. 1272/2008 (CLP)
2,2',6,6'-tetra-tert-butyl-4,4'-methylenediphenol	>= 1 - < 5 %	118-82-1	Skin Irrit. 2; Eye Irrit. 2A; STOT SE 3; H315, H319, H335
diphenylamine	0.1 – 1.0	122-39-4	Acute Tox. 3; STOT RE 2; Aquatic Acute 1; Aquatic Chronic 1; H301 + H311 + H331, H373, H410
N-1-naphthylaniline	0.25 < 1.0	90-30-2	H402 ACUTE AQUATIC HAZARD - Category 3 H412 LONG-TERM AQUATIC HAZARD - Category 3

**3.3 Additional Information** - Substances in the product which may present a health or environmental hazard, or which have been assigned occupational exposure limits, are detailed below. **None**

For full text of H/P 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 the 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.

## 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)** Synthetic Lubricant

## 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 <sup>3</sup> )	STEL (ppm)	STEL (mg/m <sup>3</sup> )	Note:
diphenylamine	122-39-4	-----	10mg/m <sup>3</sup>	-----	-----	ACGIH
			10mg/m <sup>3</sup>			NIOSH REL
N-1-naphthylaniline	90-30-2		10mg/m <sup>3</sup>			ACGIH
diphenylamine	122-39-4		10mg/m <sup>3</sup>			ACGIH
			10mg/m <sup>3</sup>			NIOSH REL

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

- 8.1.2 **Recommended monitoring method** Not available
- 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.



Respiratory protection Not normally required.



Thermal hazards Not normally required.

**8.2.3 Environmental Exposure Controls** Not normally required.

## 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)	261 [Open cup]
Evaporation rate	Not applicable
Flammability (solid, gas)	Not applicable
Explosive limit ranges.	Not applicable
Vapour Pressure (mm Hg)	< 1
Vapour Density (Air=1)	> 1
Density (g/ml)	0.92
Solubility (Water)	Insoluble.
Solubility (Other)	Not available
Partition Coefficient (n-Octanol/water)	Not available
Auto Ignition Temperature (°C)	>282
Decomposition Temperature (°C)	Not available
Viscosity (mPa.s) (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

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

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

#### 11.1.1 Substances

Not applicable

#### 11.1.2 Mixtures - By analogy with similar materials:

Acute toxicity	Oral: >5000 mg/kg Dermal: 2690 mg/kg
Skin corrosion/irritation	May cause skin irritation.



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Serious eye damage/irritation  
Respiratory or skin sensitization  
Germ cell mutagenicity  
Carcinogenicity  
Reproductive toxicity  
STOT - single exposure  
STOT - repeated exposure  
Aspiration hazard

Unlikely to cause eye irritation.  
Not to be expected.  
Not to be expected.  
Not to be expected.  
Not to be expected.  
Not to be expected.  
Not to be expected.  
Not to be expected.

### 11.1.3 Substances in preparations / mixtures

#### 2,2',6,6'-tetra-tert-butyl-4,4'-methylenediphenol:

Acute toxicity

Oral LD50 > 1625 mg/kg (rat)  
Inhalation LC50: No data  
Dermal: LD50 > 2000 mg/kg (rat)  
Eye irritation (not irritating to rabbit)  
Unlikely to cause skin irritation.  
Unlikely to cause eye irritation.  
Not to be expected.  
Not to be expected.  
Not to be expected.  
Not to be expected.  
Not to be expected.  
Not to be expected.  
Not applicable

Skin corrosion/irritation  
Serious eye damage/irritation  
Respiratory or skin sensitization  
Germ cell mutagenicity  
Carcinogenicity  
Reproductive toxicity  
STOT - single exposure  
STOT - repeated exposure  
Aspiration hazard

#### Diphenylamine

Oral LD50 > 2720 mg/kg (rat)  
Dermal: LD50 = >2000 mg/kg (rabbit)  
Eye irritation (Rabbit)

#### N-1-naphthylaniline:

Acute toxicity

Oral LD50 > 1625 mg/kg (rat)  
Inhalation LC50 > 11.1 mg/l (rat) 1hr  
Dermal: LD50 = >5000 mg/kg (rabbit)

Skin corrosion/irritation  
Serious eye damage/irritation  
Respiratory or skin sensitization  
Germ cell mutagenicity  
Carcinogenicity

Slightly irritant (Skin)  
Non-irritant to rabbit eyes  
It is not a skin sensitiser  
Negative  
No data

STOT - single exposure  
STOT - repeated exposure  
Aspiration hazard

Not to be expected.  
Not to be expected. Oral: NOAEL = 1000 mg/kg (rat)  
Not applicable

### 11.2 Other information

None known.

## SECTION 12: ECOLOGICAL INFORMATION

### 12.1 Toxicity

#### Substances in preparations / mixtures

Toxicity to fish (Product)

Remarks:  
No data available

Toxicity to daphnia and other aquatic invertebrates (Product)

Remarks:  
No data available

Toxicity to algae (Product)

Remarks:  
No data available



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N-1-naphthylaniline  
(Component)

EC50: 2 mg/l  
Exposure time: 48 h  
Species: Protozoa

### Elimination information (persistence and degradability)

N-1-naphthylaniline  
(Component)

aerobic  
Result: According to the results of tests of biodegradability this product is not readily biodegradable.  
0 %  
Method: OECD Test Guideline 301

### Ecotoxicology Assessment

Results of PBT assessment (Product)  
This substance is not considered to be persistent, bioaccumulating and toxic (PBT).

Additional ecological information (Product)

There is no data available for this product

<b>12.2 Persistence and degradability</b>	Not available
<b>12.3 Bioaccumulative potential</b>	Not available
<b>12.4 Mobility in soil</b>	No data
<b>12.5 Results of PBT and vPvB assessment</b>	Not classified as PBT or vPvB.
<b>12.6 Other adverse effects</b>	None known.

## SECTION 13: DISPOSAL CONSIDERATIONS

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

## SECTION 14: TRANSPORT INFORMATION

	<u>Land transport</u> <u>(ADR/RID)</u>	<u>Sea transport</u> <u>(IMDG)</u>	<u>Air transport</u> <u>(ICAO/IATA)</u>
UN number			
Proper Shipping Name			
Transport hazard class(es)			<b>Not classified as dangerous for transport.</b>
Packing group			
Environmental hazards			
Special precautions for user			

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: Not applicable

## SECTION 15: REGULATORY INFORMATION

<b>15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:</b>	
<b>15.1.1 EU regulations</b>	<b>Listed</b>
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.
<b>15.1.2 National regulations</b>	Not established.
<b>15.2 Chemical Safety Assessment</b>	Not applicable



**SECTION 16: OTHER INFORMATION**

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

**Hazard statement(s) and Precautionary statement(s):**

- **H301:** Toxic if swallowed
- **H311** Toxic in contact with skin
- **H315** Causes skin irritation
- **H319** Causes serious eye damage
- **H331** Toxic if inhaled
- **H335** May cause respiratory irritation
- **H373** May cause damage to organs through prolonged or repeated exposure
- H410: Very toxic to aquatic life with long lasting effects.
- H412: Harmful to aquatic life with long lasting effects.

**GHS Classification**

- Aquatic Chronic 3: Harmful to aquatic life with long lasting effects.

**Training advice:** None.

**Additional Information:** None.

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