

# Material Safety Data Sheet

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## 1. Product and Company Identification

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**Product Name:** MacShield  
**Trade Name:** MacShield  
**Revision Date:** 27/4/2010  
**Company Name:** Chemisys Ltd  
**Address:** P. O. Box 40480  
 Glenfield  
 Auckland  
 New Zealand  
 Phone 09 4768603 Fax 09 4768605  
 Mobile 021989229

Hazardous according to the criteria of HSNO and ERMA  
 Not classified as hazardous for transport (ADG, UN, IATA/ICAO)  
 Classified as a Combustible Liquid C1, AS 1940-1993

Surface Coatings and Colourants (Combustible, Toxic [6.7]) Group Standard 2006  
 HSNO Approval Number HSR002680

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## 2. Composition/Information on Ingredients

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Ingredients considered hazardous according to the criteria of Safe Work Australia:

Chemical Name	CAS #	Proportion	EU Classification
Heavy Aromatic Petroleum Solvent	[64742-94-5]	>60%	Xn; R65
Phosphoric Esters	[12645-31-7]	<10%	Xi; R36, R38
Copper-8-Hydroxyquinoline	[10380-28-6]	<10%	N; R52
Naphthalene	[91-20-3]	<5%	Xn; R40 N; R51/53

Ingredients determined not to be hazardous to 100%

Notes on EU Symbols: Xn Harmful, Xi Irritant

**HSNO Classification of Mixture** 6.1E, 6.3A, 6.4A, 6.7B, 9.1C, 9.3C, 3.1D

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## 3. Hazards Identification

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**HSNO Classification of Mixture** 6.1E, 6.3A, 6.4A, 6.7B, 9.1C, 9.3C 3.1D

Harmful: Low viscosity material may cause lung damage if swallowed.

Harmful: Possible risk of irreversible effects.

Irritating to eyes and skin.

Toxic to aquatic organisms and may cause long term adverse effects in the aquatic environment

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## 4. First Aid Measures

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**Eyes:**

Immediately flush eyes with plenty of water for at least 15 minutes holding eyelids apart to ensure flushing of the entire eye surface. Seek medical attention as soon as possible.

**Ingestion:**

DO NOT induce vomiting. If vomiting occurs spontaneously, keep airway clear. Seek medical attention IMMEDIATELY. NEVER induce vomiting or give anything by mouth to an unconscious patient.

**Inhalation:**

Remove victim to fresh air. Persons administering first aid to overexposure victims should carefully wash off any visible product from the victims face. Do not give anything by mouth to an unconscious person. If not breathing, give artificial respiration, preferably mouth-to-mouth. If breathing is difficult administer oxygen. Get medical attention IMMEDIATELY.

**Skin:**

Wash with plenty of soap and water. Remove contaminated clothing and footwear. Wash clothing and contaminated footwear before reuse. Seek medical attention if irritation persists.

**Note to doctor:**

Treat symptomatically. Aspiration of material into lungs due to vomiting may cause chemical pneumonitis.

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## 5. Fire-Fighting Measures

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**Flash Point:**

TCC ASTM D56 ~ 64 degrees Celsius

**Extinguisher Media:**

Foam, carbon dioxide, dry chemical.

**Unusual Fire and Explosion Hazards:** None known

**Special Protective Equipment:**

Fires in confined spaces should be dealt with by trained personnel wearing approved breathing apparatus.

**Combustion Products:**

Toxic fumes may be evolved on burning or exposure to heat, along with oxides of carbon.

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## 6. Accidental Release Measures

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**Hazards:**

This product is technically harmful to aquatic organisms and may cause long term adverse effects in the aquatic environment. Do not contaminate waterways.

**Steps to be taken if material is released or spilled:**

Wear appropriate protective clothing. Eliminate all ignition sources. Restrict access to contaminated area. Stop spill at source. Dike to prevent spreading. Collect free liquid into a recovery vessel. Absorb remainder with sand or clay and place in a properly labelled waste receptacle. Follow all government and local body regulations for disposal. Do not contaminate water while cleaning equipment or disposing of wastes. Prohibit contamination of streams, lakes and other bodies of water.

**Container Disposal:**

DO NOT reuse container. Dispose of safely.

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## 7. Handling and Storage

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**Handling:**

Avoid contact with skin, eyes and all other personal contact. Handle in accordance with good industrial hygiene and safety practises. Wash hands thoroughly after contact. Wear protective clothing when risk of exposure occurs. Avoid inhalation of vapour or mist. Only use in a well-ventilated area. Do not smoke. Extinguish any flames.

**Storage:**

Store in a cool, dry place out of reach of children.  
Incompatible with unlined metal containers.

**Other Precautions:**

Do not pressurise, cut, weld, solder, drill, grind or expose containers to heat, flames, sparks or other potential sources of ignition.

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## 8. Exposure Controls/Personal Protection

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**Exposure Controls:** In absence of standards it is recommended that the time weighted average concentration (TWA) for this product be determined at 100 mg/m<sup>3</sup> (17 ppm). This defines the highest allowable exposure concentration in an eight-hour day for a five-day working week. The short-term exposure limit (STEL) is not specified, which is the maximum allowable exposure concentration at any time.

**Biological Limit:** No biological limit allocated

**Ventilation Requirements:**

Good industrial hygiene practise dictates that indoor work areas should be isolated and provided with adequate local exhaust ventilation, if risk of overexposure occurs. Ventilate via mechanical methods (general or local exhaust) to maintain exposure below 5mg/m<sup>3</sup>.

**Eye Protection:**

Eye contact must be avoided. If accidental eye contact is possible then wear safety goggles or a face visor with side shields.

**Skin Protection:**

Skin contact must be avoided and good personal hygiene practises observed. Protective clothing including impervious chemical nitrile gloves should be worn. Care must be taken while removing gloves and other skin protective equipment to avoid skin contact.

**Respiratory Protection:**

None normally required if good ventilation is maintained. Avoid breathing vapours. If mist is generated during application process, an approved mist respirator with organic vapour filters must be used if ventilation requirements cannot be maintained. Reference should be made to AS/NZS 1715 and AS/NZS 1716 Use and Maintenance of Respiratory Protective Devices for individual circumstances.

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## 9. Physical and Chemical Properties

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<b>Appearance:</b>	Dark green/amber liquid.
<b>Odour:</b>	Slight aromatic petroleum distillate odour.
<b>PH Range:</b>	2.8 – 3.8
<b>Specific Gravity:</b>	0.89 @ 20 degrees Celsius
<b>Solubility in Water:</b>	Negligible

**Flash Point:** TCC ASTM D56 ~ 64 degrees Celsius

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## 10. Stability and Reactivity

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**Stability:** Products of this type are stable and unlikely to react in a hazardous manner under normal conditions.

**Incompatibility:** Strong Oxidising Agents

**Hazardous Decomposition Products:** Oxides of Carbon.

**Hazardous Polymerisation:** Will not occur

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## 9. Toxicological Data

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### Eyes:

Not available. Can cause severe irritation, redness, tearing, and blurred vision. Can cause irreversible damage on prolonged contact.

### Ingestion:

Not available. Can cause gastro-intestinal irritation, nausea, vomiting, and diarrhoea.

### Inhalation:

Not available. At normal ambient temperatures this product will be unlikely to present an inhalation hazard because of its low volatility. Can cause nasal and respiratory irritation, dizziness, nausea, vomiting, headache, and weakness.

### Skin:

Not available. Prolonged or repeated contact may result in itching, defatting, dermatitis or more serious irreversible skin disorders.

**RTECS:** CAS# 10380-28-6: Copper-8-Hydroxyquinoline

**LD50/LC50:** Oral rat 19930 mg/kg  
Skin rabbit >2 gm/kg

**RTECS:** CAS# 91-20-3: Naphthalene

Macshield contains a trace amount of naphthalene, as a minor component of a very widely used solvent in the international coatings industry. IARC has evaluated naphthalene and concluded that there was sufficient evidence for carcinogenicity in experimental animals, but *inadequate* evidence for cancer in exposed humans.

**LD50/LC50:** Oral rat 490 mg/kg  
Skin rat > 2500mg/kg

**RTECS:** CAS# 64742-94-5: Heavy Aromatic Petroleum Solvent

**LD50/LC50:** Inhalation rat >590 mg/m<sup>3</sup>/4H  
Skin rabbit >2 mL/kg

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## 12. Ecological Information

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### Hazard:

This product is technically harmful to aquatic organisms and may cause long term adverse effects in the aquatic environment; however this product also has negligible solubility so is unlikely to pose a significant long term risk to the environment. Do not contaminate waterways.

**Mobility:**

Spillages may penetrate the soil however the product has negligible solubility in water so is unlikely to pose a significant long term risk to the environment.

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### 13. Disposal Considerations

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Dispose of via an authorised person/licensed waste disposal contractor in accordance with local regulations.

Incineration may be carried out under controlled conditions provided that local regulations for emissions are met.

Dispose of product and container responsibly and carefully.

Do not dispose of near waterways, down drains or into soil.

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### 14. Transport Information

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Not classified as hazardous for transport (ADG, UN, IATA/ICAO)

Classified as a Combustible Liquid C1, AS 1940-1993

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### 15. Regulatory Information

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**Australian Classifications:**

UN Number:	NA
HAZCHEM Code:	NA
Dangerous Goods Class	NA
Packaging Group:	NA
EC Labelling:	Xn; R65, Xi; R36/R38, R51/53, R40 S2, S23, S24, S25, S62

**NZ Labelling:**

The label must provide the following general information about the substance:

- (a) the product name; and
- (b) enough information to enable the New Zealand importer, supplier or manufacturer to be contacted, either in person or by telephone; and
- (c) a 24 hour emergency telephone number
- (d) directions for use, including, where relevant, dilution rates and dose rates.
- (e) the general precautionary statements-

**Read label before use**

**Keep out of reach of children**

**Keep away from flames and hot surfaces**

**In case of fire: Use Foam, carbon dioxide, dry chemical**

**Avoid contact with eyes and skin**

**Do not breathe vapour**

**Do not handle until all safety precautions have been read and understood.**

**Wear gloves and suitable protective clothing and eye protection**

**Wash hands and skin thoroughly after handling**

**Avoid release to the environment**

- (f) the following response statements-

**If medical advice is needed, have product container or label at hand.**

**IF SWALLOWED:** Immediately call a POISON CENTER or doctor/physician. Do not induce vomiting.

**IF ON SKIN:** Wash with plenty of soap and water. If skin irritation occurs get medical advice/attention. Take off contaminated clothing and wash before reuse. If skin irritation persists, get medical advice/attention.

**IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do so. Continue rinsing. If eye irritation persists, get medical advice/attention.

- (g) The label must provide the following hazard information about the substance: the signal word 'warning';



the GHS pictogram warning explanation mark



the GHS pictogram aspiration hazard

the hazard statement 'combustible liquid'

the hazard statement 'suspected of causing cancer'

the hazard statement 'may be harmful if swallowed and enters airways'; and

the hazard statement 'causes skin and serious eye irritation'

the hazard statement 'harmful to aquatic life and terrestrial vertebrates with long lasting effects'

- (h) Disposal Statement-- 'Dispose of via an authorised person/licensed waste disposal contractor in accordance with local regulations. Incineration may be carried out under controlled conditions provided that local regulations for emissions are met. Dispose of product and container responsibly and carefully. Do not dispose of near waterways, down drains or into soil.'

- (i) The following composition information--

Chemical Name	CAS #	Proportion	
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Ingredients determined not to be hazardous to 100%

- (j) the following transport information:

Not classified as hazardous for transport (ADG, UN, IATA/ICAO)  
Classified as a Combustible Liquid C1, AS 1940-1993

Other Statutory Requirements:

**Material Safety Data Sheet Regulations for This Substance**

(1) A person, when selling or supplying this substance at any quantity shall provide a safety data sheet for this substance supplied to the recipient if—

- (a) the substance is likely to be used in a place of work; and
- (b) they have not previously supplied a safety data sheet for this substance to the recipient.

(2) In each place of work where this substance is manufactured, stored or used, the person in charge of the place must ensure that every person handling the substance has access to a safety data sheet for that substance.

(3) The safety data sheet must be available to a person handling this substance within 10 minutes, and be readily understandable by any fully trained worker required to have access to it.

(4) A person who manufactures or supplies this substance in New Zealand or imports this substance into New Zealand must, if asked to do so by any person in charge of a place of work where this substance is stored or used, give that person the required safety data sheet.

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**16. Other Information**

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**References:**

Supplier MSDS

<http://hsis.ascc.gov.au/>

RTECS

**Compiled by:**

Chemisys Ltd

P. O. Box 40480  
Glenfield  
Auckland  
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This data sheet and the health, safety and environmental information it contains is considered to be accurate as of the date specified. However no warranty or representation, expressed or implied is made as to the accuracy or completeness of the data and the information in this data sheet.

Health and safety precautions and environmental advice noted in this data sheet may not be accurate for all individuals and/or situations. It is the users obligation to evaluate and use this product safely and to comply with all applicable laws and regulations. The Chemisys Group shall not be responsible for any damage of injury resulting from abnormal use of this material, from any failure to adhere to recommendations or from any hazards inherent in the nature of the material.