

MATERIAL SAFETY DATA SHEET

1. IDENTIFICATION OF SUBSTANCE/MIXTURE AND SUPPLIER

Hazardous according to criteria of Worksafe Australia.

ISSUED: FEB 2012

PRODUCT NAME: PINE OIL

A.D.G. Shipping Name: PINE OIL

Other Names: OIL OF PINE, OLEUM ABIETIS, YARMOR

SUSDP Name: None allocated

Recommended Use: As a solvent, disinfectant & deodorant, penetrant, fragrance

2. HAZARDS IDENTIFICATION

Hazard Category: **Classified as Hazardous according to the criteria of NOHSC**
 Classified as Dangerous Good by the criteria of the ADG code

Poisons Schedule (SUSDP): None allocated

ADG Classification: C.1 Combustible Liquid

Risk Phrases

R36/37/38 Irritating to eyes, respiratory system and skin.

Safety Phrases (SUSDP)

S23 Do not breathe gas/fumes/vapour/spray (where applicable).

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S28 In case of skin contact, wash immediately with soap and water.

S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Ingredient</u>	<u>CAS Number</u>	<u>Proportion (%)</u>
Pine Oil	8002-09-3	>85%

4. FIRST AID MEASURES

Ingestion:	If swallowed DO NOT induce vomiting. Drink water or milk. If you feel unwell seek medical advice.
Eye:	Flush gently with running water. If irritation persists, obtain medical attention immediately.
Skin:	Gently wash contaminated area with soap and water. Seek medical attention if irritation develops.
Inhaled	If vapour or mists have been inhaled, remove victim to fresh air and observe till fully recovered. If irritation develops, seek medical attention.

Note to physician: Treat symptomatically.

5. FIRE FIGHTING MEASURES

Specific hazards:

Combustible liquid. Eliminate all ignition sources including cigarettes, open flames, pilot lights, heaters, spark producing switches/tools, electrical equipment, naked lights etc. when handling. Earth containers when dispensing fluids.

Fire fighting further advice:

Containers may burst when heated. Use water fog to cool intact containers and nearby storage areas. Evacuate area and contact emergency services. Toxic – explosive gases (carbon oxides, hydrocarbons) may be evolved when heated. Remain upwind and notify those downwind of potential hazard. Full protective equipment (see spill below) must be worn including self contained breathing apparatus when combating fire.

Suitable Extinguishing Media:

Use dry agent (carbon dioxide, chemical dry powder) or foam. Prevent contamination of drains and waterways. Absorb run-off with sand or similar absorbent.

6. ACCIDENTAL RELEASE MEASURES

Small Spills:

Wear personal protective equipment. Contain using sand or diatomaceous earth. Collect and seal in a properly labelled container. Wash the remaining area with large volumes of water.

Large Spills:

PRECAUTIONS. Restrict access to area. Remove sources of ignition. Clear the area of unprotected personnel. Provide adequate protective equipment including splash proof goggles, nitrile/viton gloves, a Type A (Organic Vapour) respirator, coveralls and boots and ensure adequate ventilation. Remove chemicals that can react with the spilled material.

CLEANUP. Contain spill or leak. Do not allow entry into sewers or waterways. Dyking the area with inert material such as sand or earth should contain spilled solutions. Solutions can be recovered or diluted with water.

DISPOSAL. Federal, State and local government regulations should be reviewed prior to disposal.

7. HANDLING AND STORAGE

HANDLING. Avoid generating mist or spray. When diluting solution, add water carefully. Label containers. Keep containers closed and upright when not in use. Empty containers may contain hazardous residues. Use smallest amounts in designated areas with adequate ventilation. Have emergency equipment (for fires, spills, leaks etc.) readily available.

STORAGE CONDITIONS: Store in suitable labelled containers in cool, dry, well ventilated area, removed from oxidising agents, acids, alkalis, direct sunlight, heat or ignition sources and foodstuffs.. Keep containers tightly closed when not in use or empty. Protect from damage. Limit quantity of material in storage as per "Storage and handling of flammable and combustible liquids" AS 1940-1993. Restrict access to storage area. Post warning signs where appropriate. Keep storage area separate from populated work areas. Inspect periodically for deficiencies such as damage or leaks. Large storage areas should have appropriate fire protection.

8. EXPOSURE CONTROL/PERSONAL PROTECTION

Exposure Standards: None assigned by Worksafe Australia.

A TWA has been established for the following ingredients. Their concentration in the product as well as the concentration of the product after dilution for use should be taken into account.

Exposure standard (TWA) is the time weighted average airborne concentration over an eight-hour working day, for a five-day working week over an entire working life. According to current knowledge this concentration should neither impair the health of, nor cause undue discomfort to, nearly all workers.

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

Peak Limitation (if quoted) is a ceiling concentration, which should not be exceeded over a measurement period, which should be as short as possible, but not exceeding 15 minutes.

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

Engineering Controls: Maintain concentrations below recommended exposure limit.

Engineering control methods that reduce hazardous exposures are preferred.

General methods include mechanical explosion proof ventilation, dilution and general exhaust, process or personnel enclosure, control of process conditions and process modification (e.g. substitution with less hazardous material). Administrative controls and personal protective equipment may also be required. Exhaust directly to the outside. Use local exhaust ventilation, and process enclosure if necessary, to control airborne mist/sprays.

Personal Protective Equipment (PPE):

Respiratory: If engineering controls and work practices are not effective in controlling exposure to this material, then wear suitable approved Type A (Organic Vapour) respiratory protection equipment. Inspect the equipment regularly to ensure that it is in good working order.

Eye/face Protection: Splash proof chemical safety goggles meeting AS1336 & AS1337.

Skin Protection: Impervious nitrile/viton gloves. Full coveralls and rubber boots may be necessary for tasks involving large quantities or movement of product or where splashing is a risk.

A safety shower or eye wash fountain should be readily available. Wash hands thoroughly after handling this material.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance/Odour:	Clear, colourless liquid. Characteristic pine odour.
Melting Point:	Not available
Boiling Point:	Approx. 206°C
Density at 15.5°C	0.927
Solubility:	Insoluble
Evaporation Rate	Not available
Flash Point:	76°C (closed cup)
Volatiles	Not available
Upper Explosion Limit	Not available
Lower Explosion Limit	Not available
Flammable Limits:	Combustible

10. STABILITY AND REACTIVITY

Stability: This product is capable of causing spontaneous heating in contact with organic substances.

Product is incompatible with the following products:

OXIDISING AGENTS

Organic Materials

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon dioxide, carbon monoxide.

HAZARDOUS POLYMERISATION PRODUCTS: Does not occur.

CORROSIVITY TO METALS: Not corrosive.

FIRE HAZARD COMMENTS. Combustible.

11. TOXICOLOGICAL INFORMATION

Health Effects

Low to moderate toxicity – irritant. This product has the potential to cause adverse health effects with chronic over exposure. Use safe work practices to avoid skin and eye contact and over exposure via inhalation. Chronic ingestion may result in cirrhosis of the liver. Over exposure may cause central nervous system depression.

Acute Effects

Swallowing: Low to moderate toxicity. Ingestion may result in nausea, vomiting, abdominal pain, dizziness, fatigue, diarrhoea and with large doses unconsciousness.

Eye: Low to moderate irritant to the eyes. May result in irritation, pain and redness.

Skin: Irritant. Long term exposure may lead to contact dermatitis. Defatting and cracking.

Inhaled: Low irritant. Over exposure to mists or vapours at high levels may result in mucous membrane irritation of the nose and throat with coughing. At high levels; headache, nausea and dizziness may occur.

Toxicity Data:

Aquatic Toxicity Data: Algal toxicity : 2000 ug/l 21 weeks

More detailed information about the effects of chemicals on health can be obtained from NOHSC Australia.

12. ECOLOGICAL INFORMATION

Pine Oil will biodegrade.

13. DISPOSAL CONSIDERATIONS

Empty containers should be filled with water and emptied to remove flammable vapours before disposal. If possible recycle containers either in-house or send to a recycle company. If this is not practical, send to a commercial waste disposal site. Do NOT dispose into sewers or waterways.

Empty plastic containers that have contained only a Town & Country Chemicals product may be given to any Town & Country Chemicals representative for recycling.

14. TRANSPORT INFORMATION

Proper Shipping Name: PINE OIL
UN Number: 1272
Dangerous Goods Class: 3
Subsidiary Risk: None allocated
Hazchem Code: 3[Y]
Packing Group: III

Dangerous Goods Segregation: Do not transport with chemicals of Class 1 (Explosives), 2.1/2.3 (Flammable/Toxic gases), 4.2 (Spontaneous combustibles), 5.1 (Oxidising agents), 5.2 (Organic peroxides), 6 (Toxics), 7 (Radio-actives) and Foodstuffs.

15. REGULATORY INFORMATION

Classified as hazardous according to the criteria of Worksafe (NOHSC) Australia, All constituents of this material are listed on the Australian Inventory of Chemical Substances (AICS).

16. OTHER INFORMATION

References: (1) National Code of Practice for the Preparation of Material Safety Data Sheets [NOHSC:2011(2003)].

(2) Approved Criteria for Classifying Hazardous Substances [NOHSC:1008(2004)] 3rd Edition.

(3) List of Designated Hazardous Substances [NOHSC:10005(1999)].

(4) Standards Australia SAA/SNZ HB76:1996 "Dangerous Goods – Initial Response Guide"

(5) Redox Chemicals – MSDS for PINE OIL.

(6) Australian Dangerous Goods Code 6th Edition.

(7) NOHSC Hazardous Substance Information System (HSIS).

Ask for the Manager

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MSDS are updated frequently. Please ensure that you have a current copy (not more than 5 years old).

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