

MATERIAL SAFETY DATA SHEET

SMART CLEAN Product: PINE OIL DISINFECTANT

Date of Issue:
AUGUST 2010

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SECTION 1 – STATEMENT OF HAZARDOUS NATURE, CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

SUPPLIER: Smart Clean
ADDRESS: Norman St, Ascot 4007 Queensland Australia
Trade Name: "PINE OIL" DISINFECTANT CLEANER
TELEPHONE: 07 3868 2609 **FAX:** 07 3630 1523
AH EMERGENCY TELEPHONE: 13 1126 in Australia **ABN:** 27144 521 200
Substance: Water based **Product Use:** Disinfectant
Creation Date: August 2010 **Revision Date:** July 2015

SECTION 2 – HAZARDS IDENTIFICATION

This product is classified as **HAZARDOUS (IRRITANT)** according to criteria of the National Occupational Health and Safety Commission Australia. This product is **NOT classified as Dangerous Goods** according to the Australian Dangerous Goods (ADG) Code. This product is classified as a **Schedule 5 Poison** according to the SUSDP.

Approved Criteria Classification Xi - IRRITANT
R36/38 – Irritating to skin and eyes.
S(1/2) – Keep locked up and out of reach of children.
S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/37/39 – Wear suitable protective clothing, gloves and eye/face protection.
S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label whenever possible).

UN Number none allocated **ADG Classification** none allocated
Shipping Name none allocated **ADG Subsidiary Risk** none allocated
Hazchem Code none allocated **Packing Group** none allocated
SUSDP Classification S5 CAUTION

EMERGENCY OVERVIEW
Colour Caramel **Odour** Fragrant - pine
Physical Description Liquid **Viscosity** Non-viscous liquid
Major Health Hazards None known

SECTION 3 – COMPOSITION AND INFORMATION ON INGREDIENTS

Ingredients determined not to be hazardous are present in concentrations that do not exceed the relevant cut-off concentrations as found from NOHSC publication "List of Designated Hazardous Substances" or have been found NOT to meet the criteria of a hazardous substance as defined in the NOHSC publication "Approved Criteria for Classifying Hazardous Substances".

Ingredients:	CAS Number:	Proportion:	Exposure Standards TWA	Exposure Standards STEL
Ethanol	64-17-6	10 - 30% w/w	1000 ppm (1880 mg/m ³)	not set
Potassium hydroxide	1310-58-3	< 10% w/w	2 mg/m ³	2 mg/m ³ "peak"
Pine Oil	8002-09-3	< 10% w/w	not set	not set
Ingredients determined to be non-hazardous	Various	< 10% w/w	not set	not set
Water	7732-18-5	> 60% w/w	not set	not set

The **TWA** exposure value is the Time Weighted Average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week. The **STEL** (Short Term Exposure Limit) is an exposure value that should not be exceeded for more than 15 minutes and should not be repeated for more than 4 times per day. There should be at least 60 minutes between successive exposures at the STEL. The term "peak" is used when the TWA limit, because of the rapid action of the substance, should never be exceeded, even briefly.

SECTION 4 – FIRST AID MEASURES

Scheduled Poisons Poisons Information Centre in each Australian State capital city or in Christchurch, New Zealand can provide additional assistance for scheduled poisons. (Phone Australia 131126 or New Zealand 03 474 7000).

First Aid Facilities Normal washroom facilities.

Skin contact Wash skin with plenty of water. Remove contaminated clothing and wash before re-use. Seek medical advice (e.g. doctor) if irritation, burning or redness develops.

Eye contact Immediately irrigate with copious quantities of water for at least 20 minutes. Eyelids to be held open. Seek medical advice (e.g. ophthalmologist).

Ingestion Do NOT induce vomiting. Do NOT attempt to give anything by mouth to an unconscious person. Rinse mouth thoroughly with water immediately. Give water to drink. If vomiting occurs, give further water to achieve effective dilution. Seek medical advice (e.g. doctor).

Inhalation Remove victim to fresh air away from exposure - avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position, keep warm and to rest. If breathing laboured and patient cyanotic (blue), ensure airways are clear and have qualified person give oxygen through a face mask. If breathing has stopped apply artificial respiration at once. Seek immediate medical advice (e.g. doctor).

Advice to Doctor No specific antidote. Treat symptomatically. All treatments should be based on observed signs and symptoms of distress of the patient. Poisons Information Centre in each Australian State capital city or in Christchurch, New Zealand can provide additional assistance for scheduled poisons.

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Aggravated Medical Conditions

None known.

SECTION 5 – FIRE FIGHTING MEASURES

Fire and Explosion Hazards

Water based. C1 combustible. If involved in a fire will emit toxic fumes.

Extinguishing Media

Use carbon dioxide (CO2) fire extinguisher, water fog or fine water spray.

Fire Fighting

Keep containers exposed to extreme heat cool with water spray. Fire fighters to wear self-contained breathing apparatus if risk of exposure to products of combustion or decomposition. Evacuate area - move upwind of fire.

Flash Point

> 61 °C

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Emergency Procedures

No HAZCHEM code.

Occupational Release

Minor spills do not normally need any special clean-up measures. In the event of a major spill, prevent spillage from entering drains or water courses. For large spills, or tank rupture, consider initial evacuation distance of 200 metres in all directions. Stop leak if safe to do so. If available, use water spray to disperse vapour. Wear appropriate protective equipment as in section 8 below to prevent skin and eye contamination. Spilt material may result in a slip hazard and should be absorbed into dry, inert material (e.g. sand, earth or vermiculite), which then can be put into appropriately labelled drums for disposal by an approved agent according to local conditions. Residual deposits will remain slippery. Wash area down with excess water. If contamination of sewers or waterways has occurred advise the local emergency services. In the event of a large spillage notify the local environment protection authority or emergency services.

SECTION 7 – HANDLING AND STORAGE

Handling

Avoid contact with incompatible materials. When handling, DO NOT eat, drink or smoke. Keep containers closed at all times. Avoid physical damage to containers. Always wash hands with water after handling.

Storage

Store in a cool, dry, place with good ventilation. Avoid storing in aluminium and light alloy containers. Store away from incompatible materials (Section 10). Keep containers closed at all times – check regularly for leaks.

SECTION 8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure Limits

National Occupational Exposure Limits, as published by National Occupational Health & Safety Commission:

Time-weighted Average (TWA): None established for specific product.

See **SECTION 3** for Exposure Limits of individual ingredients.

Short Term Exposure Limit (STEL): None established for specific product.

See **SECTION 3** for Exposure Limits of individual ingredients.

Biological Limit Value

None established for product.

Engineering Controls

Ensure ventilation is adequate to maintain air concentrations below exposure standards. Avoid generating mists of the product. Use only in a well-ventilated area. Ensure airflow, where this product is used, is directed away from the operators.

Personal Protective Equipment

This product is classified as hazardous (IRRITANT) according to the criteria of Worksafe Australia. Once diluted with an equal volume of water, the product is no longer classified as hazardous according to the criteria of Worksafe Australia. Use good occupational work practice. The use of protective clothing and equipment depends upon the degree and nature of exposure. Final choice of appropriate protection will vary according to individual circumstances i.e. methods of handling or engineering controls and according to risk assessments undertaken. The following protective equipment should be available;

Eye Protection



Generally not required to handle properly diluted solutions of the product. The use of safety glasses with side shield protection, goggles or face shield is recommended to handle in quantity, cleaning up spills, decanting, etc. Contact lenses pose a special hazard ; soft lenses may absorb irritants and all lenses concentrate them.

Skin Protection



Generally not required to handle diluted solutions of the product. Overalls, work boots and elbow length gloves are recommended for handling the concentrated product (as per AS/NZS 2161, or as recommended by supplier) to handle in quantity, cleaning up spills, decanting, etc.

Protective Material Types Respirator



Material suitable for detergent contact – Butyl rubber, Natural Latex, Neoprene, PVC, and Nitrile.

Not required for normal cleaning operations. Where high contaminant spray mist or vapour levels exist, ie, approaching the exposure limit, the following additional equipment is required: For short elevated exposures, eg, spillages:- Appropriate organic vapour cartridge respirator as per the requirements of AS/NZS 1715 and AS/NZS 1716 (Respiratory protective devices). For prolonged exposure and confined spaces:- full face air supplied or self contained breathing apparatus (if vapour levels exceed the Exposure Limit by more than ten times, air supplied apparatus should be used).

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Physical State

liquid

Colour

Caramel

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Odour	fragrant pine odour	Specific Gravity	1.0 @ 25 °C
Boiling Point	Approximately 100 °C	Freezing Point	Approximately 0 °C
Vapour Pressure	Not available	Vapour Density	Not available.
Flash Point	> 63 °C	Flammable Limits	None
Water Solubility	Miscible in all proportions.	pH	13.0 neat
Volatile Organic Compounds (VOC)	0 % v/v.	Coefficient of Water/Oil Distribution	Not available.
Viscosity	Not available.	Odour Threshold	Not available.
Evaporation Rate	Not available.	Per Cent Volatile	Ca 80 % v/v.

SECTION 10 – STABILITY AND REACTIVITY

Chemical Stability	Stable at normal temperatures and pressure.
Conditions to Avoid	May corrode mild steel, copper, aluminium and zinc fittings.
Incompatible Materials	Product can decompose on combustion to form Carbon Monoxide, Carbon Dioxide, and other possibly toxic gases and vapours on burning.
Hazardous Decomposition Products	Product can decompose on combustion to form Carbon Monoxide, Carbon Dioxide, and other possibly toxic gases and vapours.
Hazardous Reactions	None known.

SECTION 11 – TOXICOLOGICAL INFORMATION

PRODUCT MIXTURE INFORMATION

Local Effects	Irritant: eye, skin, inhalation and ingestion.
Target Organs	Eyes, mucous membranes, skin.

POTENTIAL HEALTH EFFECTS

Ingestion

short term exposure	Harmful if swallowed. Ingestion of this product may cause nausea, vomiting, abdominal pain and irritation to the mouth, throat and stomach.
long term exposure	No information available.

Skin contact

short term exposure	Irritating to skin - may cause skin burns, irritation. Corrosion will continue until removed. Severity depends on the concentration and duration of exposure. Burns are not immediately painful; onset of pain may be minutes to hours.
long term exposure	Prolonged and repeated skin contact with undiluted solutions may induce eczematoid dermatitis.

Eye contact

short term exposure	Eye contact may cause stinging, blurring, tearing, pain.
long term exposure	No information available.

Inhalation

short term exposure	Inhalation of mists or aerosols can produce mucous membrane and respiratory irritation.
long term exposure	No information available.

Carcinogen Status

NOHSC	No significant ingredient is classified as carcinogenic by NOHSC.
NTP	No significant ingredient is classified as carcinogenic by NTP.
IARC	No significant ingredient is classified as carcinogenic by IARC.

Medical conditions

aggravated by exposure	No information available.
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CLASSIFICATION OF INDIVIDUAL INGREDIENTS

NOTE : This information relates to each individual ingredient, when evaluated as pure undiluted chemical. See SECTION 3 for actual proportions of ingredients present in this product.

Ingredients

Pine Oil
Potassium hydroxide
Ethanol

R-Phrases.

R41, R65
R36/38 – Irritating to skin and eyes. (0.5% to 2%)
R10 - Flammable

100% Pine Oil

Irritation Data	REPORTED HUMAN EFFECTS: A human repeated insult patch test for skin sensitisation produced skin irritation in 40/50 subjects but no sensitisation. Daily application to the skin of rabbits at doses less than acutely irritating (up to 226 mg/kg day) for 90 days produced mild skin thickening but no systematic injury. Dermal LD50 (rabbit) = 5000 mg/kg. Skin Contact: severe irritant (500mg 24 hours: rabbit). Eye Contact : severe irritant
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Toxicity Data	REPORTED ANIMAL EFFECTS: Pine oil had a low order of toxicity by oral administration to rats and by skin application to rabbits. It was irritating to skin, eyes and mucosal surfaces, and exposure to large doses caused slow-healing injury to the skin and eyes. Repeated daily inhalation by rats and guinea pigs of air substantially saturated with pine oil/vapour for 7 hours/days caused marked inflammation of the respiratory tract, reversible hyperthermia and CNS depression, and evidence of liver and kidney injury.
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Local Effects	Harmful, irritant
Target Organs	Skin, eyes, Central Nervous System.
Acute Toxicity Level	Harmful : ingestion
Mutagenic Data	No additional information available.

Potassium hydroxide 100%

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Irritation Data	Causes severe skin burns. Severe eye irritant – may cause permanent injury. Irritant Dose (rabbits,dermal): 50 mg/24 hr - severe skin irritant . Irritant Dose (rabbits, ocular): 1 mg/24 hr - Moderate eye irritant. Inhalation of dusts or mists of the solution can result in respiratory irritation and possible corrosive effects.
Toxicity Data	LD50/rat/oral: 365 mg/kg
Local Effects	Very Corrosive: inhalation, skin, eye, ingestion
Target Organs	Skin, mucous membranes, respiratory system, eyes.
Acute Toxicity Level	Toxic : ingestion, skin, inhalation (of aerosol or dust).
Reproductive Effects	No available information.
Carcinogen Data	Potassium and sodium hydroxide have been implicated as a cause of cancer of the oesophagus in individuals who have ingested it. The cancer may develop 12 to 42 years after the ingestion incident. Similar cancers have been observed at the sites of severe thermal burns. These cancers may be due to tissue destruction and scar formation rather than the action of the hydroxide itself. Not classified as a carcinogen by Worksafe Australia.
Mutagenic Data	No available information.
ETHANOL 100%	
Irritation Data	Moderately irritating to skin – may cause redness. Moderately irritating to eyes – may injure tissue. Moderately irritating to respiratory system and mucous membranes.
Toxicity Data	Excessive chronic absorption may result in liver damage. LD50 oral (rat) : 2080 mg/kg
Local Effects	Absorbed into the body by inhalation and ingestion. Irritant of sensitive tissues, eg eyes and mucous membranes. Central nervous system depression.
Target Organs	Eyes, mucous membranes, liver, central nervous system.
Acute Toxicity Level	Mild toxicity. Narcotic properties: ingestion.
Mutagenic Data	No available information.
Reproductive Data	No available information.

SECTION 12 – ECOLOGICAL INFORMATION

Fish toxicity	None available for specific product.
Algae toxicity	None available for specific product.
Invertebrates toxicity	None available for specific product.
Toxicity to Bacteria	None available for specific product.
OECD Biological degradation	Individual components stated to be biodegradable.
General	Product miscible in all proportions with water. DO NOT DISCHARGE BULK QUANTITIES INTO DRAINS, WATERWAYS, SEWER OR ENVIRONMENT. Inform local authorities if this occurs.

SECTION 13 – DISPOSAL CONSIDERATIONS

Disposal	To dispose of quantities of undiluted product, refer to State Land Waste Management Authority. Transfer product residues to a labelled, sealed container for disposal or recovery. Waste disposal must be by an accredited contractor. As with any chemical, do not put down the drain in quantity. The small quantities contained in wash solutions (when used as directed) can generally be handled by conventional sewage systems, septic, and grey water systems. For larger scale use, eg. Commercial laundry operations, a recycled water system is often recommended, or Trade Waste License obtained for disposal to sewer.
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SECTION 14 – TRANSPORT INFORMATION

UN Number	none allocated	ADG Classification	none allocated
Shipping Name	none allocated	ADG Subsidiary Risk	none allocated
Hazchem Code	none allocated	Packing Group	none allocated
Packaging Method	none allocated	Special Provisions	none allocated
Segregation	none allocated		

SECTION 15 – REGULATORY INFORMATION

AICS	All ingredients present on AICS.
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SECTION 16 – OTHER INFORMATION

Labeling Details	
HAZARD	Xi - IRRITANT
RISK PHRASES	R36/38 – Irritating to skin and eyes.
SAFETY PHRASES	S(1/2) – Keep locked up and out of reach of children. S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S36/37/39 – Wear suitable protective clothing, gloves and eye/face protection. S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label whenever possible).
SUSDP	S5 CAUTION (ALKALINE SALTS)

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ADG Code none allocated

Acronyms

SUSDP

Standard for the Uniform Scheduling of Drugs and Poisons.

ADG Code

Australian Code for the Transport of Dangerous Goods by Road and Rail.

CAS Number

Chemical Abstracts Service Registry Number.

UN Number

United Nations Number.

R-Phrases

Risk Phrases.

HAZCHEM

An emergency action code of numbers and letters which gives information to emergency services.

NOHSC

National Occupational Health and Safety Commission.

NTP

National Toxicology Program (USA).

IARC

International Agency for Research on Cancer.

AICS

Australian Inventory of Chemical Substances.

TWA

Time Weighted Average

STEL

Short Term Exposure Limit

Literature References

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

Australian Code For The Transport Of Dangerous Goods By Road And Rail – Sixth Edition.

Standard for the Uniform Scheduling of Drugs and Poisons.

National Code of Practice for the Preparation of Material Safety Data Sheets 2nd Edition [NOHSC:2011(2003)]

Approved Criteria for Classifying Hazardous Substances [NOHSC:1008(1999)]

Material Safety Data Sheets – individual raw materials – Suppliers.

HSIS – Hazardous Substance Information System – National Worksafe Data Base.

New Issue to standard : 2nd Edition [NOHSC:2011(2003)].

Revision Information

Note

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

Contact Point

Regulatory Affairs Manager.

Telephone

(07) 3204 8300

Issue Date

SEPTEMBER 2007

Supersedes Issue Date

11/99

This MSDS summarizes at the date of issue our best knowledge of the health and safety hazard information of this product, and in particular how to safely handle and use this product in the workplace. Since the supplier cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, review this MSDS in the context of how the user intends to handle and use the product in the workplace. If clarification or further information is needed to ensure that an appropriate assessment can be made, the user should contact this supplier.