Section 1: Identification of the Material and Supplier

Product Name: **Pine Klenz**

Other Names: Germicidal detergent/sanitiser.

Proper shipping name (ADG Code): None assigned.

Recommended use: As a farm disinfectant.
Use as directed on the product label.

Supplier:
DASCO Pty. Ltd.,
ABN: 14 004 581 113
24 - 26 Helen Street, HEIDELBERG HEIGHTS VIC 3081
Tel: (03) 9459 7004 (business hours)
Fax: (03) 9459 9200

Emergency Phone Numbers:

Transport/Fire Emergency:	**000**	(Emergency services)
Medical Emergency:	**131126**	(Poisons Information Centre)

Section 2: Hazards Identification

Not classified as hazardous according to criteria of Worksafe Australia.

Non-dangerous goods.

Risk Phrases: None assigned.

Safety Phrases: None assigned.

Section 3: Composition/Information on Ingredients

Ingredients:

Quaternary ammonium compound		< 10 %
Non-ionic surfactant		< 10 %
Other ingredients deemed not to be hazardous		< 10 %
Water	[7732-18-5]	to 100 %

Section 4: First Aid Measures

For advice, contact a Poisons Information Centre (Phone 131 126) or a doctor.

Swallowed: If swallowed, do NOT induce vomiting.

Skin: If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water.

Eyes: If in eyes wash out immediately with water.

Inhaled: Remove from exposure.

First Aid facilities:
Recommended: Eye wash. Hand wash basin.

Advice to Doctor:
Product contains a low proportion of a quaternary ammonium compound and a very low proportion of a non-ionic surfactant. If swallowed, vomiting should not have been induced because of risk of aspiration of froth into the lungs. May cause mild irritation to eyes. Contact Poisons Information Centre.

Aggravated medical conditions:
No data found.

Section 5: Fire Fighting Measures

HAZCHEM Code: None assigned.

Evacuate: No.

Extinguishant: Water.

Risk of violent reaction or explosion: No.

Products of combustion: Water vapour, oxides of carbon, traces of nitrogen oxides, traces of hydrogen chloride.

Protective Equipment: Breathing apparatus and protective gloves for fire only.

Section 6: Accidental Release Measures

Emergency Procedures:
Contain.

For large spills:
Contain spillage using sand or earth. Transfer both liquids and solids to suitable container. Treat residues as for small spillages.

For small spills:
If local regulations permit, mop up with plenty of water and run to waste, diluting greatly with running water. Otherwise absorb on inert absorbent, transfer to suitable container and arrange removal by disposals company.

Section 7: Handling and Storage

Precautions for safe handling:

Avoid contact with skin and eyes.
Keep away from oxidising agents.

Conditions for safe storage:

Store in a cool, well ventilated place, out of reach of children. Large quantities should be stored in a bunded area. Store in original container. Keep container tightly closed and out of direct sunlight. Keep away from oxidising agents. Protect from physical damage. Clean up all spills and splashes promptly; avoid secondary accidents.

Incompatibles:

Oxidising agents, strong acids, caustic alkalis.

Section 8: Exposure Controls/Personal Protection

National Exposure Standards:

ES-TWA: None assigned.

ES-STEL: None assigned.

ES-PEAK: None assigned.

Notations: None.

Biological Limit Values: No data found.

Engineering Controls:

Ensure adequate ventilation (same as outdoors) when using. If handling industrial quantities, or if aerosol risk exists, consider local mechanical exhaust/extraction to keep airborne contamination as low as possible.

Personal Protective Equipment:

Avoid contact with skin and eyes. Avoid breathing aerosols. Personal protection to be selected from those recommended below, as appropriate to mode of use, quantity handled and degree of hazard:-

Normal Use:

Eye/face protection
Gloves, rubber or plastic.

Industrial Quantities:

Face shield or safety glasses
Gloves, rubber or plastic
Plastic apron, sleeves and boots
Impervious overalls.

Section 9: Physical and Chemical Properties

Appearance:	Clear, blue, mobile, frothing liquid.	
Odour:	Smell of pine.	
pH:	About neutral.	
Vapour Pressure:	No data.	
Vapour Density:	No data.	
Boiling Point:	From about 100 °C	
Melting Point:	No data.	
Volatiles:	About 94 %	[water]
Volatile Organic Compounds (VOC):	< 1 %	[perfume]
Evaporation Rate:	No data.	
Solubilities:	Miscible with water in all proportions.	
Specific Gravity/Density:	1 g/mL @ 20 °C	
Flash Point:	None.	
Flammable Limits:	None.	
Dust Explosion:	Not applicable.	
Auto-ignition Temperature:	No data.	

Other Information:

May react with strong oxidising agents.
Slippery when spilled.

Section 10: Stability and Reactivity

Chemical Stability: Stable under normal conditions.

Conditions to Avoid: Incompatible materials.

Incompatible Materials: Oxidising agents, strong mineral acids, caustic alkalis.

Hazardous Decomposition Products: Traces of nitrogen oxides, traces of hydrogen chloride.

Hazardous Reactions: None known.

Section 11: Toxicological Information

Health Effects:
No data available for the mixture. Information presented relates to individual ingredients.

Acute:

Swallowed: Likely to cause gastric upset with discomfort or pain, nausea, vomiting and diarrhoea.
An aspiration risk.

Skin: May cause mild irritation on prolonged contact. Will have a degreasing effect on the skin which may lead to further irritation.

Eyes: May be irritating to eyes. May cause redness, itching and pain.

Inhaled: Inhalation of aerosols may cause respiratory irritation.
Aspiration of froth into the lungs during swallowing or vomiting may lead to chemical pneumonitis (irritation of lung tissues) and pulmonary oedema (fluid build-up in the lungs). Onset of symptoms may be delayed.

Chronic: Repeated skin contact may lead to irritation and possible dermatitic effects.

LD50: Quaternary ammonium compound 240 mg/kg oral, rat.

TDLo: Quaternary ammonium compound 266 mg/kg oral, woman - *(hallucinations, distorted perceptions, hypermotility, diarrhoea.)*

Section 12: Ecological Information

Ecotoxicity: May be harmful to aquatic organisms.

Persistence and degradability: The surfactant used in this product is not considered to be readily biodegradable.

Mobility: Readily transported by water.

Environmental Fate: No data.

Bioaccumulative potential: No data.

Other adverse environmental effects: Quaternary ammonium compounds are harmful to microorganisms.
Contains a surfactant. Local concentrations may be harmful to aquatic organisms, including fish.

Section 13: Disposal Considerations

The generator of any wastes from this product is responsible for its proper classification, transport and disposal.

Consult appropriate local and State regulations.

Disposal methods and containers:
Avoid disposal to drains, natural waters or the environment.

Special precautions for landfill or incineration:
Unsuitable for incineration.
May not be suitable for some landfill sites.

Section 14: Transport Information

UN Number: None assigned.

UN Proper shipping name: None assigned.

Class and subsidiary risk: None assigned.

Packaging group: None assigned.

Special precautions for user: Contain spillages.

HAZCHEM Code: None assigned.

Material for export: Not regulated.

Section 15: Regulatory Information

Poisons (SUSDP): Not a scheduled poison.

Dangerous Goods: No.

Carcinogen:	**Australia**	**IARC**	**NTP**	**RTECS**
	No.	No.	No.	No.

Agricultural and Veterinary Chemicals Act:
This product is registered with the Australian Pesticides and Veterinary Medicines Authority **(APVMA)**.

Australian Inventory of Chemical Substances (AICS): Listed.

Other National/International Regulations: No data found.

Section 16: Other information

Date of MSDS update: September 2009
Complete review and re-write of all sections.

Abbreviations:

NOHSC - National Occupational Health and Safety Commission.
ACGIH - American Conference of Governmental Industrial Hygienists.
MAK - Maximum workplace concentration - Germany, (*maximale Arbeitsplatzkonzentration*)
IARC - International Agency for Research on Cancer (France).
NTP - National Toxicology Program (USA).
RTECS - Registry of Toxic Effects of Chemical Substances.

Literature references:

Available Sources of Data:

National Code of Practice for the Preparation of Material Safety Data Sheets 2nd Edition [2011(2003)] - NOHSC.
Australian Dangerous Goods Code.
Standard for the Uniform Scheduling of Drugs and Poisons - AHMAC.
Exposure Standards for Atmospheric Contaminants in the Occupational Environment [1003]- NOHSC.
List of Designated Hazardous Substances [10005] - NOHSC.
Merck Index - Merck Inc.
Sax's Dangerous Properties of Industrial Materials - Lewis.
Handbook of Toxic and Hazardous Chemicals and Carcinogens - Sittig.
Handbook of Reactive Chemical Hazards - Bretherick.
Hawley's Condensed Chemical Dictionary - Wiley Interscience.
AUSREG's Chemical Data Package for PCs - AUSREG Consultancy.