LINVASAN®
SAFETY DATA SHEET

Section 1 Material identification and supplier

Product name	LINVASAN®
Other names	No other names
Product Code	L2
Laboratory file	AL001
Document released	July 2002 – New Format
Current update	April 2014
Summary	A translucent, colourless, fine aqueous tartaric peracid sanitiser.
Suggested use	In an aqueous solution to disinfect bacteria, yeast and other pathogens from stainless steel and associated surfaces in one process.

Company

AIRD - Innovations in Chemistry®™
Wine Industry Support Enterprises Pty. Ltd.
ACN 099 644 416

Telephone	+ 61 8 8285 9100
Fax	+ 61 8 8285 7099
E-mail	info@airdchemistry.com
Postal	7 Belfree Drive Green Fields South Australia 5107

Emergency Telephone - Australia 0417 894 682

Section 2 Hazards identification

Classification: This product is Hazardous according to the criteria of Safe Work. CORROSIVE, OXIDISING (C)/(O)
Class 8, Sub-Risk 5.1
Class 8, Sub-Risk 5.1.1C (New Zealand)

Risk phrases	R22	Harmful if swallowed
	R36/R38	Strong irritant to the eyes and skin
Safety phrases	S2	Keep out of the reach of children
	S15	Keep container away from heat
	S18	Handle and open container with care
	S24/S25	Avoid contact with the skin and eyes
	S37/S39	Wear suitable gloves & eye/face protection

Poisons schedule: Not applicable

Section 3 Composition and information on ingredients

A mixture from: Hydrogen peroxide CAS 7722-84-1
Proprietary chelate-stabiliser - from biodegradable non-phosphate substances
Other ingredients determined not to be hazardous

Further references: Australian Inventory of Chemical Substances (AICS)
Chemical Abstract Service (CAS)

Section 4 First aid measures

First Aid facilities	Eye and hand washing station, safety shower
Ingestion	Will cause nausea, vomiting, bleeding and severe stomach distortion and pain. Immediately rinse the mouth thoroughly with water. Give plenty of water to drink. Do not induce vomiting. If vomiting occurs wash out the mouth with water provided the victim is conscious. Urgent hospital treatment is likely to be needed. Seek immediate medical advice or contact the Poisons Information Centre – Australia 131 126 for advice.
Eye	The eyes are particularly sensitive to this product in its concentrated form. Likely to cause eye irritation on short term contact, or ocular burns if contact is sustained. Immediately irrigate with copious amounts of water for at least 15 minutes while holding eyelids open. Seek Medical advice if irritation persists.
Skin	Will irritate the skin on contact and may cause redness or a transient burn in the form of a whitening of the skin. Remove any contaminated clothing. Wash affected skin with plenty of soap & water. If irritation persists seek Medical advice. Launder or wash any contaminated clothing before re-use.
Inhaled	Not expected to be a source of exposure. Vapours of the concentrate may irritate the respiratory tract in some people. If a person is affected by vapours remove the victim from the source of exposure to fresh air. Allow the patient to assume the most comfortable position. Seek Medical advice if symptoms persist.
Advice to Doctor	Treat symptomatically. If a significant quantity is swallowed large amounts of oxygen may be released quickly.
Health effects	No available information.

Section 5 Fire fighting measures

Specific hazards	This product is stable and non-flammable and non-combustible when stored in a cold, dry location.
Fire-fighting advice	Chemical extinguishers may accelerate decomposition. Decomposes on heating liberating oxygen. Heating will cause decomposition which can lead to containers rupturing violently or exploding. If safe to do so, remove any containers from the path of any fire. Fire fighters to wear self-contained breathing apparatus and full protective clothing if there is a risk of exposure to the products of decomposition. Keep the containers cool with water spray.
Extinguishing media	If this material is involved in a fire use a water spray, carbon dioxide.

Section 6 Accidental release measures

For large spills

- Ensure that the cleanup is conducted by trained personnel.
- Do not touch any of the spilled material.
- Evacuate all unnecessary personnel.
- Wear appropriate protective equipment including boots, safety glasses, chemical resistant gloves. Try to contain liquid spills within a bund. Heavily dilute Linvasan with water and contain in a prepared bund. Allow the aqueous mixture to degrade naturally.
- Alternatively, collect and contain the spilt material by brooming on hard surfaces such as concrete or bitumen. Soak up with an inert absorbent such as earth or sand and scoop, place and seal the material in properly labelled containers or drums for disposal according to the local regulations. Wash-down affected area with plenty of water, but avoid discharging aqueous waste run-off into natural waterways.
- Pools of aqueous solutions of the product concentrate on hard surfaces may be slippery.

For small spills

- Mop up and rinse all surfaces with clean water

Section 7 Handling and storage

- Handle all packages with due care. Refer Sec.10 – Stability & Reactivity.
- Store in a dry, ventilated, cold place (<20°C ambient), and away from incompatible materials, such as strong alkalines, acids, oxidising agents, foodstuffs, and out of direct sunlight and away from heat and sources of heat. Keep all containers sealed when the product is not in use to maintain quality. Store with all venting plugs/caps intact and all the containers upright (vertical) to allow vapour to vent from the container.
- Check regularly for any spillages.

Section 8 Exposure controls, personal protection

Occupational Exposure Limits	No value has been assigned for this specific material by the Safe Work Australia.

Exposure Standard(s) for Hydrogen peroxide.	TWA (mgm3)	TWA (ppm)
	1.4	1.0

TWA	Time weighted average airborne concentration over an 8 hour working day, for a 5 day working week over an entire working life.

These exposure standards are only 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 fine dividing lines between safe and/or dangerous concentrations of chemicals. They are not a measure of relative toxicity.

Engineering Control Measures	Ensure ventilation is adequate and that air/material concentrations are controlled below quoted Exposure Standards.
Personal Protective Equipment	Appropriate work clothing and shoes/boots, safety glasses, chemical resistant (PPE) gloves, and a respirator (AS/NZS 1715,1716) if the person shows respiratory symptoms. For eye protection, use safety glasses with side shields.
Other protective measures	Ensure your personal hygiene is maintained. Always wash your hands before smoking, eating, drinking and using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use.

Section 9 Physical and chemical properties

Physical state	Clear fine liquid
Colour	Colourless
Molecular formula	Not applicable
Odour	Mild acid-peroxide
Solubility	Soluble in water
Specific gravity	1.16 g/cm^3 (water = 1) approx.
Flash point	Not applicable, non-flammable
pH	<2.1 approx. (1% w/v aqueous solution)
FP	Range 1.5-0 °C
BP	Range 95 -102 °C

Section 10 Stability and reactivity

- This material is stable when stored correctly and used as recommended.
- If stored continuously at high temperatures, i.e. >30°C it will commence to degrade.
- Exposure to continuous hot conditions of higher temperatures (35-45°C) then the product can commence to strongly degrade which will result in the situation as described on the Australian Standard EPG - 8D1 for these Goods - “Heat may cause violent rupture of containers”.
- Although this product will not burn, principally due to its water content, it contains Hydrogen Peroxide (Chem. Formula H_2O_2), the components of which will support combustion.
- Polymerisation is not expected.

Section 11 Toxicological information

No adverse health effects are expected if the product is handled in accordance with this safety data information and the product label. Symptoms or effects that can arise if this product is mishandled are discussed in Section 4 – First Aid Measures as above. The product is an irritant for the eyes and may irritate the skin and respiratory tract as a concentrate.

Long term effects	No information available for this product. No adverse health effects are expected from accumulative work exposure to this product.
Toxicological data	No information available
Carcinogenicity	The materials are not classified as carcinogenic.
Mutagenicity	The product is non-mutagenic, non teratogenic. The components of this product will not give rise to birth defects.

Section 12 Ecological information

Avoid contaminating the environment with concentrated material. Avoid disposal to natural waterways with concentrated non-neutralized solutions.

Degradability	Aqueous solutions of this product are highly biodegradable (<30days)
Eco-toxicity	In a dilute neutralised aqueous solution it is not expected to harm marine or aquatic life. Predominantly degrades to oxygen and hydrogen.

Section 13 Disposal considerations

Refer to the Waste Management Authority. Dispose of through a licensed waste contractor.

Section 14 Transport information

Label — In accordance with the Safe Work 'Code of Practice' for workplace substances.

Road/Rail transport — Classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport of by road & rail.

Marine transport — Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.

Codes

UN No.	3093
DG Class	8
Subsidiary Risk	5.1
Poisons Schedule	5
Packaging Group	3
Hazchem Code	2X
EPG	8D1 - Corrosive, Oxidising, N.O.S.

This product should not be loaded or packed in the same vehicle as;
All Fire risk substances, combustible liquids, foodstuffs, food packaging, and

Explosives	Class 1
Flammable gases, Toxic gases	Class 2.1, 2.3
Flammable liquids, solids, and combustible substances	Class 3
Dangerous when wet substances	Class 4.1, 4.2, 4.3
Oxidising agents, Organic peroxides	Class 5.1, 5.2
Toxic substances	Class 6
Miscellaneous Dangerous Goods	Class 9

Section 15 Regulatory information

Classification — This product is hazardous according to the criteria of Safe Work. Dangerous Goods.
CORROSIVE, OXIDISING (C)/(O)
Class 8, Sub-Risk 5.1
Class 8, Sub-Risk 5.1.1C (New Zealand)

Risk phrase(s)

R22	Harmful if swallowed
R36/R38	Strong irritant to the eyes and skin

Safety phrase(s)

S2	Keep out of the reach of children
S15	Keep container away from heat
S18	Handle and open container with care
S24/S25	Avoid contact with the skin and eyes
S37/S39	Wear suitable gloves & eye/face protection

Poisons schedule — Not applicable

Chemical Materials are listed on the AICS.

Section 16 Other information

REFERENCES & SOURCES

Registry of Toxic Effects of Chemical Substances
D.Sweet, US Dept of Health and Human Services: Cincinatti 2003.

HERA(Human & Environmental Risk Assessment)
EU Report Summary - March 2002.

Safework Australia-National Occupational Health and Safety Commission.
Approved Criteria for classifying Hazardous Substances [Safe Work:[1008(2004)] 3rd Edition

The criteria included in the Approved Criteria are adopted from European Community (EC) legislation for classifying dangerous substances.

National Code of Practice for the Labelling of Workplace Substances [Safe Work:2012(1994)]

APPROVALS and COMPLIANCE

Australia

The materials in Linvasan® assist companies to comply with the FSANZ (Food Standards Australia & New Zealand) Standards 1.2.1, 1.2.4, 1.2.6, 1.3.3, 1.4.3.

Linvasan® complies with the Dept. of Agriculture, Fisheries and Forestry (DAFF), Australian Quarantine Inspection Service (AQIS) and the Organic Federation of Australia (OFA) and affiliates approved substances for organic biodynamic food production.
The National Standard for Organic and biodynamic produce, Edition 3.4 of 1/7/2009
Item 9 – Retail/Wholesale/Export
Substances permitted for sanitation, storage handling, Page 56, Appendix 11, Annex A, Items 1, 3 and 4.

DISCLAIMER

This SDS summarises to our best knowledge at the date of issue, the chemical health and safety hazards of this product and general guidance on how to handle the material in the workplace.

If clarification or further information is needed, the user should contact us from the information in the Materials and Supplier information - Section 1 herein.

This information is supplied in good faith, but since data, safety standards & Government regulations are subject to change, and, as the conditions of handling and use or misuse are beyond our control, we make no warranty, either express or implied, with respect to the completeness or accuracy of the information contained herein subsequent to the time of compilation.