



Section 1: Identification of the Material and Supplier

Product Name: Total Rinse

Other Names: Aqueous solution of potassium hydroxide and other alkaline salts, with 1.25 % available chlorine.

Proper shipping name (ADG Code): Caustic alkali liquid, n.o.s.
(potassium hydroxide, sodium silicate)

Recommended use: In automatic dish washing machines.
Use as directed on the product label.
When using in prescribed premises, rinse with potable water after use.

Supplier: Hunters Products (TAS) Pty. Ltd.,
A.C.N. 004 601 263

HEAD OFFICE
60 Gleadow Street,
INVERMAY TAS 7248
Tel: 03 6331 4755
Fax: 03 6334 1065

HOBART OFFICE
105 Albert Road,
MOONAH TAS 7009
Tel: 03 6228 7955
Fax: 03 6228 7988

BURNIE OFFICE
22 Pearl Street,
WIVENHOE TAS 7320
Tel: 03 6431 9627
Fax: 03 6432 2083

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

Section 2: Hazards Identification

Classified as hazardous according to criteria of Worksafe Australia.

Dangerous goods.

Risk Phrases: R: 22 Harmful if swallowed.
R: 35 Causes severe burns.

Safety Phrases: S: 1/2 Keep locked up and out of the reach of children.
S: 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S: 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
S: 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Section 3: Composition/Information on Ingredients

Ingredients:

Potassium hydroxide	[1310-58-3]	10 - 30 %
Alkaline salts		10 - 30 %
Sodium silicate solution	[1344-09-8]	< 10 %
Other ingredients deemed not to be hazardous		< 10 %
Water	[7732-18-5]	to 100 %
Available chlorine	[7782-50-5]	1.25 %

Section 4: First Aid Measures

For advice, contact a Poisons Information Centre (Phone 131126) 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, hold eyelids apart and flush the eye continuously with running water. Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes.

Inhaled: Remove from exposure, rest and keep warm. Seek medical advice.

First Aid facilities:

Mandatory: Eye wash. Hand wash basin.

Recommended: Emergency shower if handling industrial quantities.

Advice to Doctor:

Product is a very alkaline solution containing moderate proportions of potassium hydroxide and sodium silicate. Harmful if swallowed. Causes severe burns. If swallowed may cause holes in stomach and intestines - gastric lavage may be contra-indicated. Contact Poisons Information Centre.

Aggravated medical conditions:

No data found.

Section 5: Fire Fighting Measures

HAZCHEM Code: 2 R

Evacuate: No.

Extinguishant: Water fog or fine water spray.

Risk of violent reaction or explosion: No.

Products of combustion:	Water vapour, oxides of potassium, oxides of sodium, oxides of nitrogen, carbon dioxide.
Protective Equipment:	Full protective clothing including breathing apparatus and protective gloves.

Section 6: Accidental Release Measures

Emergency Procedures:

Dilute with water.

For large spills:

Contain spillages with sand or earth. Transfer both liquid and solids to suitable container(s). Treat residues as for small spills.

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 and transfer to suitable container. Wash site of spillage thoroughly with water and detergent. Ventilate area to dispel any residual vapours.

Section 7: Handling and Storage

Precautions for safe handling:

Avoid contact with skin and eyes.
Keep away from acids, active metals.

Conditions for safe storage:

Store in a cool, well ventilated place, out of reach of children. Large quantities should be stored in a bonded dangerous goods store. Store in original container. Keep container tightly closed. Keep away from acids, ammonium compounds, aluminium, lead, tin and zinc. Protect from physical damage. Clean up all spills and splashes promptly; avoid secondary accidents.

Incompatibles:

Acids, ammonium compounds, organic halides, active metals (such as aluminium, lead, tin and zinc), nitro compounds, wood and wood products.

Section 8: Exposure Controls/Personal Protection

National Exposure Standards:

ES-TWA:	Potassium hydroxide	2 mg/m ³
	Chlorine	1 ppm, 3 mg/m ³
ES-STEL:	None assigned.	
ES-PEAK:	Potassium hydroxide	2 mg/m ³
	Chlorine	1 ppm, 3 mg/m ³

Notations: None.

[Peak] indicates a ceiling concentration which should not be exceeded, even momentarily.

Biological Limit Values: No data found.

Engineering Controls:

Do not use aluminium, lead, tin, zinc, galvanised iron or wood or wood products as materials of construction.
Ensure adequate ventilation (same as outdoors) when using.
If handling industrial quantities, or if vapour/aerosol risk exists, consider local mechanical exhaust/extraction to keep airborne contamination as low as possible and at least below the TLV.

Personal Protective Equipment:

Avoid contact with skin and eyes. Avoid breathing aerosol/vapours. 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, colourless, mobile liquid.	
Odour:	Slight chlorine odour.	
pH:	14.	
Vapour Pressure:	23 hPa @ 20 °C	
Vapour Density:	No data.	
Boiling Point:	From 100 °C	
Melting Point:	No data.	
Volatiles:	About 55 %	(as water)
Volatile Organic Compounds (VOC):	Nil.	
Evaporation Rate:	No data.	
Solubilities:	Miscible with water in all proportions.	

Specific Gravity/Density: 1.1 - 1.2 g/mL @ 20 °C
Flash Point: None.
Flammable Limits: None.
Dust Explosion: Not applicable.
Auto-ignition Temperature: No data.

Other Information:

Very alkaline. May react violently with strong acids.
Contact with ammonium compounds may generate ammonia, a toxic gas.
Corrosive to aluminium, lead, tin and zinc, generating hydrogen, a flammable gas.
Will attack wood and wood products, such as paper, cardboard and particle board.
May attack glass on prolonged contact.
Slippery when spilled.

Section 10: Stability and Reactivity

Chemical Stability: Stable under normal conditions.

Conditions to Avoid: Incompatible materials.

Incompatible Materials: Acids, ammonium compounds, active metals, nitro compounds, organic halides.

Hazardous Decomposition Products: Oxides of carbon, hydrogen chloride, oxides of sodium, potassium and nitrogen.

Hazardous Reactions: Will react violently with acids.
Contact with active metals may generate hydrogen, a flammable gas.
Contact with ammonium compounds may generate ammonia, a toxic gas.
May form shock-sensitive salts with nitromethane and other nitro compounds.
Contact with organic halides may cause violent reaction, fire or explosion.

Section 11: Toxicological Information

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

Acute:

Swallowed: Corrosive, may cause burns to mouth, throat and gastrointestinal system. May cause holes in stomach and intestines. If not immediately fatal, may cause scarring and stricture of oesophagus. Small quantities are likely to cause gastric upset, a burning sensation, abdominal pain, violent pain in throat and epigastrium, nausea, vomiting and diarrhoea.

Skin: Corrosive to skin. May cause severe burns. Will degrease the skin.

Eyes: Corrosive to eyes. May cause redness, pain, blurred vision and severe deep burns. Risk of permanent damage and loss of sight.

Inhaled: Inhalation of aerosols will irritate the upper respiratory system. Corrosive. Will cause a burning sensation, sneezing, cough, laboured breathing, sores in the nose.

Chronic: Repeated skin exposure may lead to irritation, rash, skin burns. Chronic exposure to low levels of chlorine vapour may lead to chloracne, possible erosion of the teeth.

LD50: Potassium hydroxide 273 mg/kg oral, rat.
Alkaline salt #1 > 4,640 mg/kg skin, rabbit.
Sodium silicate 1,960 mg/kg oral, rat.

Section 12: Ecological Information

Ecotoxicity: Harmful to aquatic organisms.

Persistence and degradability: No data.

Mobility: Readily transported by running water.

Environmental Fate: No data.

Bioaccumulative potential: No data.

Other adverse environmental effects: Contains phosphate. May contribute to development of algal bloom in natural waters.

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 natural waters or the environment.

Special precautions for landfill or incineration:
Unsuitable for incineration.

Section 14: Transport Information

UN Number: UN 1719

UN Proper shipping name: Caustic alkali liquid, n.o.s.
(potassium hydroxide, sodium silicate)

Class and subsidiary risk: 8 Corrosive.

Packaging group: II

Special precautions for user: Do not store or transport with dangerous goods of classes 1, 4.3, 5.1, 5.2, 7, 8 (acidic), foodstuffs and foodstuff empties.

HAZCHEM Code: 2 R

Material for export: Regulated.
Refer to **IMO/IMDG** and **IATA/ICAO**.

Section 15: Regulatory Information

Poisons (SUSDP): Schedule 6
Potassium hydroxide > 5 %

Dangerous Goods: Yes. UN 1719 8/II 2 R.

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

Agricultural and Veterinary Chemicals Act: Not applicable.

Australian Inventory of Chemical Substances (AICS): Listed.

Other National/International Regulations: No data.

Section 16: Other information

Date of MSDS update: March 2006
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).
NPT - National Toxicology Program (USA).
RTECS - Registry of Toxic Effects of Chemical Substances.

Literature references:**Other 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.