

SAFETY DATA SHEET



W35 DISH MACHINE DETERGENT

Catalogue number: AC215

Version No: 2.2

Issue date: 13/07/2023

Safety Data Sheet according to WHS and ADG requirements.

SECTION 1 IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

Product Identifier

Product name	W35 DISH MACHINE DETERGENT
Synonyms	AC215
Proper shipping name	POTASSIUM HYDROXIDE SOLUTION
Other means of identification	Not Available

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	Concentrated automatic dishwasher detergent
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Details of the supplier of the safety data sheet

Registered company name	VERIDIA Australia
Address	10 Voyager Circuit, Glendenning, NSW, 2761.
Telephone	1300 228 222
Website	www.veridia.com.au
Email	admin@veridia.com.au

Emergency telephone number

Association / Organisation	Poisons Information Centre
Emergency telephone numbers	13 1126
Other emergency telephone numbers	Not Available

SECTION 2 HAZARDS IDENTIFICATION

Classification of the substance or mixture

HAZARDOUS CHEMICAL. DANGEROUS GOODS. According to the Model WHS Regulations and the ADG Code.

Poisons Schedule	6
GHS Classification	Serious Eye Damage Category 1, Skin Corrosion/Irritation Category 1B, Acute Toxicity (Oral) Category 4, Metal Corrosion Category 1 <i>Classification drawn from HCIS and ECHA C&L Inventory.</i>

Label elements

Hazard pictograms	
SIGNAL WORD	DANGER

Hazard statement(s)

H314	Causes severe skin burns and eye damage
H302	Harmful if swallowed
H290	May be corrosive to metals

Precautionary statement(s) Prevention

P260	Do not breathe mist or vapours.
P264	Wash thoroughly all contaminated skin after handling
P280	Wear protective gloves / protective clothing / eye protection / face protection.
P234	Keep only in original container.
P270	Do not eat, drink or smoke when using this product.

Precautionary statement(s) Response

P301+P310+P330+P331	IF SWALLOWED: Immediately call a POISON CENTER or doctor. Rinse mouth. Do NOT induce vomiting.
P303+P310+P361+P353	IF ON SKIN (or hair): Immediately call a POISON CENTER or doctor. Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+P310+P351+P338	IF IN EYES: Immediately call a POISON CENTER or doctor. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P304+P310+P340	IF INHALED: Immediately call a POISON CENTER or doctor. Remove person to fresh air and keep at rest in a position comfortable for breathing.
P363	Wash contaminated clothing before reuse.
P390	Absorb spillage to prevent material damage.

Precautionary statement(s) Storage

P405	Store locked up
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Precautionary statement(s) Disposal

P501	Dispose of contents / container in accordance with local government regulations
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SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS**Substances**

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name
1310-58-3	30-60	<u>potassium hydroxide</u>
10213-79-3	<10	<u>sodium metasilicate, pentahydrate</u>
1310-73-2	<10	<u>sodium hydroxide</u>
64-02-8	<10	<u>EDTA tetrasodium salt</u>

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

SECTION 4 FIRST AID MEASURES**Description of first aid measures**

Eye Contact	<p>If this product comes in contact with the eyes: Seek medical advice / attention without delay. Immediately hold eyelids apart and flush the eye continuously with running water. Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes. If required, transport to hospital or doctor without delay. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.</p>
Skin Contact	<p>If skin or hair contact occurs: Seek medical advice / attention without delay. Immediately flush body and clothes with large amounts of water, using safety shower if available. Quickly remove all contaminated clothing, including footwear. Wash skin and hair with running water. Continue flushing with water until advised to stop by the Poisons Information Centre. If required, transport to hospital, or doctor.</p>
Inhalation	<p>If fumes or combustion products are inhaled remove from contaminated area. Lay patient down. Keep warm and rested. Seek medical advice / attention without delay. Prosthesis such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures. Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary. If required, transport to hospital, or doctor. Inhalation of vapours or aerosols (mists, fumes) may cause lung oedema. Corrosive substances may cause lung damage (e.g. lung oedema, fluid in the lungs). As this reaction may be delayed up to 24 hours after exposure, affected individuals need complete rest (preferably in semi-recumbent posture) and must be kept under medical observation even if no symptoms are (yet) manifested. Before any such manifestation, the administration of a spray containing a dexamethasone derivative or beclomethasone derivative may be considered. This must definitely be left to a doctor or person authorised by him/her.</p>
Ingestion	<p>For advice, contact a Poisons Information Centre or a doctor at once. Urgent hospital treatment is likely to be needed. If swallowed do NOT induce vomiting. If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. Observe the patient carefully. Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious. Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink. Transport to hospital or doctor without delay.</p>

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

INGESTION:

- ▶ Milk and water are the preferred diluents. No more than 2 glasses of water should be given to an adult.
- ▶ Neutralising agents should never be given since exothermic heat reaction may compound injury.

SKIN AND EYE:

- ▶ Injury should be irrigated for 20-30 minutes. Eye injuries require saline. [Ellenhorn & Barceloux: Medical Toxicology]

SECTION 5 FIREFIGHTING MEASURES

Extinguishing media

Extinguishing media	<p>Foam. Dry chemical powder. BCF. (Where regulations permit). Carbon dioxide. Water spray or fog</p>
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Special hazards arising from the substrate or mixture

Fire incompatibility	None known
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Advice for firefighters

Fire Fighting	<p>Alert Fire Brigade and tell them location and nature of hazard. Wear full body protective clothing with breathing apparatus. Prevent, by any means available, spillage from entering drains or water course. Use firefighting procedures suitable for surrounding area. Do not approach containers suspected to be hot. Cool fire exposed containers with water spray from a protected location. If safe to do so, remove containers from path of fire. Equipment should be thoroughly decontaminated after use.</p>
Fire/Explosion Hazard	<p>Non-combustible. Not considered a significant fire risk, however containers may burn. Decomposition may produce toxic fumes of phosphorus oxides (POx).</p>
HAZCHEM	2R

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Minor Spills	<p>Contain spillage. Check regularly for spills and leaks. Wash spills away with copious amounts of water.</p>
Major Spills	<p>Contain spillage. Wear full body protective clothing with breathing apparatus. Prevent, by any means available, spillage from entering drains or water course. Stop leak if safe to do so. Absorb on sand, dirt, vermiculite or similar absorbent material. Place into labelled drums and dispose of according to local government regulations. Immediately notify emergency services (Police or Fire Brigade) if the spill is too large for you to safely and effectively handle.</p>
PPE	Personal Protective Equipment advice is contained in Section 8 of the SDS.

SECTION 7 HANDLING AND STORAGE

Precautions for safe handling

Safe handling	<p>Avoid all personal contact, including inhalation. Wear protective clothing when risk of exposure occurs. Use in a well-ventilated area. Avoid contact with incompatible materials. When handling, DO NOT eat, drink or smoke. Keep containers securely sealed when not in use. Avoid physical damage to containers. Always wash hands with soap and water after handling.</p>
Other information	<p>Store in original containers. Keep containers securely sealed. Store in a cool, dry, well-ventilated area. Store away from incompatible materials and foodstuff containers. Protect containers against physical damage and check regularly for leaks. Observe manufacturer's storage and handling recommendations contained within this SDS. DO NOT store near acids, or oxidising agents.</p>

Conditions for safe storage, including any incompatibilities

Suitable container	Store only in original container.
Storage incompatibility	<p>Avoid strong acids, acid chlorides, acid anhydrides and chloroformates. Avoid contact with copper, aluminium and their alloys. Reacts with mild steel, galvanised steel / zinc producing hydrogen gas which may form an explosive mixture with air.</p>

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

OCCUPATIONAL EXPOSURE LIMITS (OEL)

INGREDIENT DATA


Source	Ingredient	Material name	TWA	STEL	Peak	Notes
Australia Exposure Standards	potassium hydroxide	Potassium hydroxide	Not Available	Not Available	2 mg/m3	Not Available
Australia Exposure Standards	sodium hydroxide	Sodium hydroxide	Not Available	Not Available	2 mg/m3	Not Available

EMERGENCY LIMITS

Ingredient	Material name	TEEL-1	TEEL-2	TEEL-3
potassium hydroxide	Potassium hydroxide	0.18 mg/m3	2 mg/m3	54 mg/m3
sodium metasilicate, pentahydrate	Sodium metasilicate pentahydrate	45 mg/m3	45 mg/m3	170 mg/m3
sodium hydroxide	Sodium hydroxide	Not Available	Not Available	Not Available
EDTA tetrasodium salt	Ethylenediaminetetraacetic acid, tetrasodium salt, dihydrate	82 mg/m3	900 mg/m3	5500 mg/m3

Ingredient	Original IDLH	Revised IDLH
potassium hydroxide	Not Available	Not Available
sodium metasilicate, pentahydrate	Not Available	Not Available
sodium hydroxide	250 mg/m3	10 mg/m3
EDTA tetrasodium salt	Not Available	Not Available

Exposure controls

Appropriate engineering controls	Maintain adequate ventilation at all times. In most circumstances natural ventilation systems are adequate. If ventilation is poor, then the use of a local exhaust ventilation system is recommended.
Personal protection	
Eye and face protection	Safety glasses with unperforated side shields OR Chemical goggles. Full face shield (20 cm, 8 in minimum) may be required for supplementary but never for primary protection of eyes. These afford face protection. Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. Lens should be removed at the first signs of eye redness or irritation. Lens should be removed in a clean environment only after workers have washed hands thoroughly.
Skin protection	See Hand protection below
Hands/feet protection	Elbow length gloves. Butyl or neoprene are recommended for this application.
Body protection	Overalls When handling corrosive liquids, wear trousers or overalls outside of boots, to avoid spills entering boots.
Other protection	PVC Apron. PVC protective suit may be required if exposure severe. Eyewash unit. Ensure there is ready access to a safety shower.
Thermal hazards	Not Available

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**Information on basic physical and chemical properties**

Appearance	Clear liquid		
Physical state	Liquid	Relative density (Water = 1)	1.345
Odour	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Applicable
pH (as supplied)	14	Decomposition temperature	Not Available
Melting point / freezing point (°C)	Not Applicable	Viscosity (cSt)	Not Available
Initial boiling point and boiling range (°C)	Not Available	Molecular weight (g/mol)	Not Available
Flash point (°C)	Not Applicable	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	Not Applicable	Oxidising properties	Not Available
Upper Explosive Limit (%)	Not Applicable	Surface Tension (dyn/cm or mN/m)	Not Available
Lower Explosive Limit (%)	Not Applicable	Volatile Component (%vol)	Not Available
Vapour pressure (kPa)	Not Available	Gas group	Not Available
Solubility in water (g/L)	Miscible	pH as a solution (1%)	Not Available
Vapour density (Air = 1)	Not Available	VOC g/L	Not Available

SECTION 10 STABILITY AND REACTIVITY

Reactivity	See section 7
Chemical stability	Contact with alkaline material liberates heat
Possibility of hazardous reactions	See section 7
Conditions to avoid	See section 7
Incompatible materials	See section 7
Hazardous decomposition products	See section 5

SECTION 11 TOXICOLOGICAL INFORMATION**Information on toxicological effects**

Inhaled	Inhaling corrosive bases may irritate the respiratory tract. Symptoms include cough, choking, pain and damage to the mucous membrane. Inhalation of potassium hydroxide dust may be fatal due to spasm, throat pain, redness, hoarseness of voice, and difficulty in swallowing and breathing. There may be inflammation with accumulation of fluid in the lungs. Other symptoms include burning sensation, coughing, wheezing, headache, nausea and vomiting. The material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage.
Ingestion	Accidental ingestion of the material may be harmful; Ingestion of alkaline corrosives may produce burns around the mouth, ulcerations and swellings of the mucous membranes, profuse saliva production, with an inability to speak or swallow. Both the oesophagus and stomach may experience burning pain; vomiting and diarrhoea may follow.
Skin Contact	The material can produce severe chemical burns following direct contact with the skin. Skin contact is not thought to produce harmful <u>health</u> effects (as classified under EC Directives using animal models). Potassium hydroxide burns are not immediately painful; onset of pain may be delayed minutes or hours; thus care should be taken to avoid contamination of gloves and boots. Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.
Eye	If applied to the eyes, this material causes severe eye damage. Direct eye contact with corrosive bases can cause pain and burns. There may be swelling, epithelium destruction, clouding of the cornea and inflammation of the iris. Mild cases often resolve; severe cases can be prolonged with complications such as persistent swelling, scarring, permanent cloudiness, bulging of the eye, cataracts, eyelids glued to the eyeball and blindness.
Chronic	Repeated or prolonged exposure to corrosives may result in the erosion of teeth, inflammatory and ulcerative changes in the mouth and necrosis (rarely) of the jaw. Bronchial irritation, with cough, and frequent attacks of bronchial pneumonia may ensue.

Toxicological effects of ingredients

Sodium hydroxide	Acute toxicity	Data not available
	Skin corrosion/irritation	Contact with skin will result in severe irritation. Corrosive to skin - may cause skin burns.
	Eye damage/irritation	A severe eye irritant. Corrosive to eyes; contact can cause corneal burns.
	Respiratory/skin sensitization	Not expected to be a sensitiser
	Germ cell mutagenicity	No expected to be mutagenic
	Carcinogenicity	Not expected to be carcinogenic
	Reproductive toxicity	Data not available
	STOT (single exposure)	May cause irritation to respiratory system
	STOT (repeated exposure)	Data not available
	Aspiration toxicity	Not considered an aspiration hazard
Potassium hydroxide	Acute toxicity	Oral LD50 (rat): 273 mg/kg.
	Skin corrosion/irritation	Contact with skin will result in severe irritation. Corrosive to skin
	Eye damage/irritation	A severe eye irritant. Corrosive to eyes; contact can cause corneal burns Contamination of eyes can result in permanent injury
	Respiratory/skin sensitization	Data not available.
	Germ cell mutagenicity	Not expected to be mutagenic
	Carcinogenicity	Not expected to be carcinogenic.
	Reproductive toxicity	Data not available.
	STOT (single exposure)	Breathing in dust may result in respiratory irritation
	STOT (repeated exposure)	Data not available.
Aspiration toxicity	Data not available.	
Sodium metasilicate pentahydrate	Acute toxicity	LD50 Oral - rat - 847 mg/kg
	Skin corrosion/irritation	Corrosive. Causes skin burns
	Eye damage/irritation	Corrosive. Causes eye burns
	Respiratory/skin sensitization	No Data Available
	Germ cell mutagenicity	Sodium silicate was not mutagenic to the bacterium E. Coli when tested in a mutagenicity bioassay
	Carcinogenicity	There are no known reports of carcinogenicity of sodium silicates.
	Reproductive toxicity	Decreased numbers of births and survival to weaning was reported for rats fed sodium silicate in their drinking water at 600 and 1200 ppm.
	STOT (single exposure)	Dust corrosive to respiratory tract
	STOT (repeated exposure)	No Data Available
Aspiration toxicity	No Data Available	
EDTA tetrasodium salt	Acute toxicity	Oral LD50 (rat): 1000-2000 mg/kg
	Skin corrosion/irritation	Contact with skin may result in irritation
	Eye damage/irritation	Irritant (rabbit).
	Respiratory/skin sensitization	No Data Available
	Germ cell mutagenicity	No Data Available
	Carcinogenicity	Not listed as carcinogenic according to the International Agency for Research on Cancer (IARC).
	Reproductive toxicity	No Data Available
	STOT (single exposure)	No Data Available
	STOT (repeated exposure)	No Data Available
	Aspiration toxicity	No Data Available

SECTION 12 ECOLOGICAL INFORMATION

Toxicity

	Endpoint	Duration (Hr.)	Species	Value
Potassium hydroxide	C50	96	Fish	80mg/L
	EC0	48	Crustacea	<1mg/L
	NOEC	24	Fish	28mg/L
Sodium metasilicate pentahydrate	LC50	96	Fish	2-320mg/L
	EC50	48	Crustacea	1-700mg/L
	EC50	72	Algae or other aquatic plants	207mg/L
	EC100	48	Crustacea	10-mg/L
Sodium hydroxide	LC50	96	Fish	<180mg/L
	EC50	48	Crustacea	40.4mg/L
EDTA tetrasodium salt	LC50	96	Fish	1-592mg/L
	EC50	48	Crustacea	140mg/L
	EC50	72	Algae or other aquatic plants	=1.01mg/L
	EC10	72	Algae or other aquatic plants	=0.48mg/L
	NOEC	72	Algae or other aquatic plants	=0.39mg/L

Extracted from Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity

May cause long-term adverse effects in the aquatic environment.

Do NOT allow product to come in contact with surface waters or to intertidal areas below the mean high-water mark. Do not contaminate water when cleaning equipment or disposing of equipment wash-waters. Wastes resulting from use of the product must be disposed of on site or at approved waste sites.

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
sodium hydroxide	LOW	LOW

Bio accumulative potential

Ingredient	Bioaccumulation
sodium hydroxide	LOW (LogKOW = -3.8796)

Mobility in soil

Ingredient	Mobility
sodium hydroxide	LOW (KOC = 14.3)

SECTION 13 DISPOSAL CONSIDERATIONS

Waste treatment methods

Product / packaging disposal	Recycle containers whenever possible. Product residues and containers should be disposed of in accordance with local government regulations
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SECTION 14 TRANSPORT INFORMATION

Labels Required

	
Marine Pollutant	NO
HAZCHEM	2R

Land transport (ADG)

UN number	1814				
Packing group	II				
UN proper shipping name	POTASSIUM HYDROXIDE SOLUTION				
Environmental hazard	No relevant data				
Transport hazard class	<table border="1"> <tr> <td>Class</td> <td>8</td> </tr> <tr> <td>Sub risk</td> <td>Not Applicable</td> </tr> </table>	Class	8	Sub risk	Not Applicable
Class	8				
Sub risk	Not Applicable				
Special precautions for users	<table border="1"> <tr> <td>Special provisions</td> <td>Not applicable</td> </tr> <tr> <td>Limited quantity</td> <td>1 L</td> </tr> </table>	Special provisions	Not applicable	Limited quantity	1 L
Special provisions	Not applicable				
Limited quantity	1 L				

SECTION 15 REGULATORY INFORMATION**Safety, health and environmental regulations / legislation specific for the substance or mixture****POTASSIUM HYDROXIDE (1310-58-3) IS FOUND ON THE FOLLOWING REGULATORY LISTS**

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals
 Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5
 Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 6
 Australian Inventory of Industrial Chemicals (AIIC)

SODIUM METASILICATE, PENTAHYDRATE (10213-79-3) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals
 Australian Inventory of Industrial Chemicals (AIIC)

SODIUM HYDROXIDE (1310-73-2) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals
 Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5
 Australian Inventory of Industrial Chemicals (AIIC)

EDTA TETRASODIUM SALT (64-02-8) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals
 Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 4
 Australian Inventory of Industrial Chemicals (AIIC)

SECTION 16 OTHER INFORMATION**Revision Schedule**

Revision Date	24/10/2022
Initial Date	08/12/2016

SDS Version Summary

Version	Issue Date	Sections Updated
2.1	05/02/2021	Sections 2,3,5,11,12,15,16 have been updated or corrected
2.2	24/10/2022	Sections 3, 8, 11, 12, 15, 16.

Other information**DISCLAIMER:**

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Definitions and abbreviations

PC-TWA;	Permissible Concentration-Time Weighted Average
PC-STEL;	Permissible Concentration-Short Term Exposure Limit
IARC;	International Agency for Research on Cancer
ACGIH;	American Conference of Government Industrial Hygienists
STEL;	Short Term Exposure Limit
TEEL;	Temporary Emergency Exposure Limit
IDLH;	Immediate Danger to Life or Health Concentrations
OSF;	Odour Safety Factor
NOAEL;	No Observed Effects Level
TLV;	Threshold Limit Value
LOD;	Limit Of Detection
OTV;	Odour Threshold Value
BCF;	Bio Concentration Factors
BEI;	Biological Exposure Index

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End of SDS

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