

SAFETY DATA SHEET



AQUABOOST CONC

APPLIED PRODUCTS AUSTRALIA PTY LTD

Catalogue number: AP852

Version No: 1.4

Issue date: 19/01/2017

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 | AQUABOOST CONC |
| Synonyms | AP852 |
| 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 | Liquid laundry breakwash concentrate |
|--------------------------|--------------------------------------|

Details of the supplier of the safety data sheet

| | |
|-------------------------|---|
| Registered company name | APPLIED PRODUCTS AUSTRALIA PTY LTD |
| Address | 11 Gamma Close, Beresfield 2322 NSW Australia |
| Telephone | (02) 4966 5516 |
| Fax | (02) 4966 5510 |
| Website | www.actichem.com.au |
| Email | info@actichem.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 WHS Regulations and the ADG Code.

| | |
|------------------------|--|
| Poisons Schedule | 6 |
| GHS Classification [1] | Serious Eye Damage Category 1, Skin Corrosion/Irritation Category 1A, Acute Toxicity (Oral) Category 4, Metal Corrosion Category 1, Specific target organ toxicity - single exposure Category 3 (respiratory tract irritation) |
| Legend: | 1. Classified by Chemwatch; 2. Classification drawn from HSIS; 3. Classification drawn from EC Directive 1272/2008 - Annex VI |

Label elements

| | |
|--------------------|---------------|
| GHS label elements | |
| SIGNAL WORD | DANGER |

Hazard statement(s)

| | |
|------|---|
| H318 | Causes serious eye damage |
| H314 | Causes severe skin burns and eye damage |
| H302 | Harmful if swallowed |
| H290 | May be corrosive to metals |
| H335 | May cause respiratory irritation |

Precautionary statement(s) Prevention

| | |
|------|--|
| P260 | Do not breathe mist / vapours / spray. |
| P271 | Use only outdoors or in a well-ventilated area. |
| 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. Remove/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 victim 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

| | |
|----------------|---|
| P403+P405+P233 | Store locked up, in a well ventilated place |
|----------------|---|

Precautionary statement(s) Disposal

| | |
|------|---|
| P501 | Dispose of contents / container in accordance with local government regulations |
|------|---|

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Substances

See section below for composition of Mixtures

Mixtures

| CAS No | %[weight] | Name |
|------------|-----------|---|
| 1310-58-3 | 10-30 | <u>potassium hydroxide</u> |
| 10213-79-3 | <10 | <u>sodium metasilicate pentahydrate</u> |
| 7320-34-5 | <10 | <u>potassium pyrophosphate</u> |

SECTION 4 FIRST AID MEASURES

Description of first aid measures

| | |
|---------------------|---|
| Eye Contact | <p>If this product comes in contact with the eyes:</p> <ul style="list-style-type: none"> Obtain 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 necessary, transport to hospital or doctor without delay. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel. |
| Skin Contact | <p>If skin or hair contact occurs:</p> <ul style="list-style-type: none"> Obtain 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. Transport to hospital, or doctor. |
| Inhalation | <p>If fumes or combustion products are inhaled remove from contaminated area.</p> <ul style="list-style-type: none"> Obtain medical advice / attention without delay. Lay patient down. Keep warm and rested. Prostheses 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. Transport to hospital, or doctor, without delay. 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. |
| Ingestion | <p>For advice, contact a Poisons Information Centre or a doctor at once.</p> <ul style="list-style-type: none"> 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. |

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

Alkalis continue to cause damage after exposure.

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.

Activated charcoal does not absorb alkali.

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 | Water spray or fog. Foam. Dry chemical powder. BCF (where regulations permit). Carbon dioxide. |
|---------------------|--|

Special hazards arising from the substrate or mixture

| | |
|----------------------|------------|
| Fire incompatibility | None known |
|----------------------|------------|

Advice for firefighters

| | |
|-----------------------|--|
| Fire Fighting | 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. |
| Fire/Explosion Hazard | Non-combustible. Not considered a significant fire risk, however containers may burn. |

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

| | |
|--------------|--|
| Minor Spills | Check regularly for spills and leaks. Clean up all spills immediately. Avoid breathing vapours and contact with skin and eyes. Control personal contact with the substance, by using protective equipment. Contain and absorb spill with sand, earth, inert material or vermiculite. Wipe up. Place in a suitable, labelled container for waste disposal. |
| Major Spills | 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. |
| | Personal Protective Equipment advice is contained in Section 8 of the SDS. |

SECTION 7 HANDLING AND STORAGE

Precautions for safe handling

| | |
|-------------------|--|
| Safe handling | Avoid all personal contact, including inhalation. Wear protective clothing when risk of exposure occurs. Use in a well-ventilated area. WARNING: To avoid violent reaction, ALWAYS add material to water and NEVER water to material. 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. DO NOT allow clothing wet with material to stay in contact with skin |
| Other information | 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. |

Conditions for safe storage, including any incompatibilities

| | |
|-------------------------|---|
| Suitable container | Store only in original container. |
| Storage incompatibility | Reacts vigorously with acids Avoid strong acids, acid chlorides, acid anhydrides and chloroformates. Avoid contact with copper, aluminium and their alloys. |

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 |

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 |
| potassium pyrophosphate | Potassium pyrophosphate; (Tetrapotassium diphosphonate) | 22 mg/m3 | 250 mg/m3 | 1900 mg/m3 |

| Ingredient | Original IDLH | Revised IDLH |
|-----------------------------------|---------------|---------------|
| potassium hydroxide | Not Available | Not Available |
| sodium metasilicate, pentahydrate | Not Available | Not Available |
| potassium pyrophosphate | 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, whenever there is a danger of the material coming in contact with the eyes; goggles must be properly fitted. 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 butyl or neoprene gloves When handling corrosive liquids, wear trousers or overalls outside of boots, to avoid spills entering boots. |
| Body protection | See Other protection below |
| Other protection | Overalls. PVC Apron. 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) | 1.39 |
| Odour | Mild chemical | 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 Available | 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 | Unstable in the presence of incompatible materials. Product is considered stable. Hazardous polymerisation will not occur. |
| 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 | The material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage. Symptoms include cough, choking, pain and damage to the mucous membrane. Other symptoms include burning sensation, coughing, wheezing, headache, nausea and vomiting. |
| Ingestion | Accidental ingestion of the material may be harmful; animal experiments indicate that ingestion of less than 150 gram may be fatal or may produce serious damage to the health of the individual. 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). 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. Long-term exposure to respiratory irritants may result in disease of the airways involving difficult breathing and related systemic problems. Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure. |

SECTION 12 ECOLOGICAL INFORMATION

Toxicity

Prevent, by any means available, spillage from entering drains or water courses.
DO NOT discharge into sewer or waterways.

Persistence and degradability

| Ingredient | Persistence: Water/Soil | Persistence: Air |
|------------|---------------------------------------|---------------------------------------|
| | No Data available for all ingredients | No Data available for all ingredients |

Bio accumulative potential

| Ingredient | Bioaccumulation |
|------------|---------------------------------------|
| | No Data available for all ingredients |

Mobility in soil

| Ingredient | Mobility |
|------------|---------------------------------------|
| | No Data available for all ingredients |

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 |
|-------------------------------------|--|

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(es) | <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 user | <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 Exposure Standards
Australia Hazardous Substances Information System - Consolidated Lists
Australia Inventory of Chemical Substances (AICS)

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

Australia Hazardous Substances Information System - Consolidated Lists
Australia Inventory of Chemical Substances (AICS)

POTASSIUM PYROPHOSPHATE (7320-34-5) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Inventory of Chemical Substances (AICS)

SECTION 16 OTHER INFORMATION**Other information**

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references. A list of reference resources used to assist the committee may be found at: www.chemwatch.net

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

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