SAFETY DATA SHEET

Product Name  CLAX HYPO 42A1

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Supplier name  DIVERSEY AUSTRALIA PTY. LIMITED
Address  29 Chifley St, Smithfield, NSW, 2164, AUSTRALIA
Telephone  (02) 9757 0300
Fax  (02) 9725 5767
Emergency  1800 033 111 (24 hrs)
Email  aucustserv@diversey.com
Web site  http://www.diversey.com
Synonym(s)  ALL PACK SIZES
Use(s)  LAUNDRY BLEACH
SDS date  23 August 2013

2. HAZARDS IDENTIFICATION

CLASSIFIED AS HAZARDOUS ACCORDING TO SAFE WORK AUSTRALIA CRITERIA

RISK PHRASES
R31 Contact with acids liberates toxic gas.
R34 Causes burns.
R41 Risk of serious damage to eyes.
R50 Very toxic to aquatic organisms.

SAFETY PHRASES
S1/2 Keep locked up and out of reach of children.
S24/25 Avoid contact with skin and eyes.
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
S28 After contact with skin, wash immediately with plenty of water.
S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
S45 In case of accident or if you feel unwell seek medical advice immediately (show the label where possible).
S50 Do not mix with incompatible materials.
S61 Avoid release to the environment. Refer to special instructions/safety data sheets.

CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE

UN number  1719
Packing group  III
Hazchem code  2R

3. COMPOSITION/ INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Identification</th>
<th>Classification</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>SODIUM HYPOCHLORITE</td>
<td>CAS: 7681-52-9</td>
<td>T;R31 C;R34 N;R50</td>
<td>3 to 10%</td>
</tr>
<tr>
<td></td>
<td>EC: 231-668-3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SODIUM HYDROXIDE</td>
<td>CAS: 1310-73-2</td>
<td>C;R35</td>
<td>1 to 3%</td>
</tr>
<tr>
<td></td>
<td>EC: 215-185-5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NON HAZARDOUS INGREDIENTS</td>
<td>Not Available</td>
<td>Not Available</td>
<td>Remainder</td>
</tr>
</tbody>
</table>
4. FIRST AID MEASURES

Eye
If in eyes, hold eyelids apart and flush continuously with running water. Continue flushing until advised to stop by a Poisons Information Centre, a doctor, or for at least 15 minutes.

Inhalation
If inhaled, remove from contaminated area. To protect rescuer, use a Full-face Type B (Inorganic and acid gas) respirator or an Air-line respirator (in poorly ventilated areas). Apply artificial respiration if not breathing.

Skin
If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. Continue flushing with water until advised to stop by a Poisons Information Centre or a doctor.

Ingestion
For advice, contact a Poison Information Centre on 13 11 26 (Australia Wide) or a doctor (at once). If swallowed, do not induce vomiting.

Advice to doctor
Treatment is symptomatic. Ingestion of hypochlorites releases hypochlorous acid which is irritating to the mucous membranes and skin but has low systemic toxicity. Buffer the acid by administering antacids.

First aid facilities
Eye wash facilities and safety shower should be available.

5. FIRE FIGHTING MEASURES

Flammability
Non flammable. May evolve toxic gases (chlorine) when heated to decomposition.

Fire and explosion
Evacuate area and contact emergency services. Toxic gases may be evolved in a fire situation. Remain upwind and notify those downwind of hazard. Wear full protective equipment including Self Contained Breathing Apparatus (SCBA) when combating fire. Use waterfog to cool intact containers and nearby storage areas.

Extinguishing
Use an extinguishing agent suitable for the surrounding fire.

Hazchem code
2R

2 Water Fog (or fine water spray if fog unavailable)
R Full protective equipment including Self Contained Breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions
Wear Personal Protective Equipment (PPE) as detailed in Section 8 of this SDS. Clear area of all unprotected personnel. Ventilate area where possible. Contact emergency services where appropriate.

Environmental precautions
Prevent product from entering drains and waterways.

Methods of cleaning up
Contain spillage, then cover/absorb spill with non-combustible absorbent material (vermiculite, sand, or similar), collect and place in suitable containers for disposal.

References
See Sections 8 and 13 for exposure controls and disposal.

7. STORAGE AND HANDLING

Storage
Store in a cool, dry, well ventilated area, removed from incompatible substances, heat or ignition sources and foodstuffs. Ensure containers are adequately labelled, protected from physical damage, sealed when not in use, vented and stored upright. Check regularly for leaks or spills. Large storage areas should have appropriate ventilation systems.

Handling
Before use carefully read the product label. Use of safe work practices are recommended to avoid eye or skin contact and inhalation. Observe good personal hygiene, including washing hands before eating. Prohibit eating, drinking and smoking in contaminated areas.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure standards

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Reference</th>
<th>TWA</th>
<th>STEL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>ppm</td>
<td>mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ppm</td>
<td>mg/m³</td>
</tr>
<tr>
<td>Chlorine (Peak Limitation)</td>
<td>SWA (AUS)</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>SODIUM HYPOCHLORITE</td>
<td>SWA (AUS)</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Sodium hydroxide (peak limitation)</td>
<td>SWA (AUS)</td>
<td>--</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>
Product Name: CLAX HYPO 42A1

Biological limits: No biological limit allocated.

Engineering controls: Avoid inhalation. Use in well ventilated areas. Where an inhalation risk exists, mechanical extraction ventilation is recommended. Maintain vapour levels below the recommended exposure standard.

PPE
- **Eye / Face**: Wear splash-proof goggles.
- **Hands**: Wear PVC or rubber gloves.
- **Body**: Wear coveralls. When using large quantities or where heavy contamination is likely, wear rubber boots and a PVC apron.
- **Respiratory**: Where an inhalation risk exists, wear a Full-face Type B (Inorganic and Acid gas) respirator.

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>CLEAR YELLOW LIQUID</td>
</tr>
<tr>
<td>Odour</td>
<td>CHLORINE ODOUR</td>
</tr>
<tr>
<td>Flammability</td>
<td>NON FLAMMABLE</td>
</tr>
<tr>
<td>Flash point</td>
<td>NOT RELEVANT</td>
</tr>
<tr>
<td>Boiling point</td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td>Melting point</td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td>pH</td>
<td>&gt; 12 (Neat)</td>
</tr>
<tr>
<td>Vapour density</td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td>Specific gravity</td>
<td>1.18</td>
</tr>
<tr>
<td>Solubility (water)</td>
<td>SOLUBLE</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td>Upper explosion limit</td>
<td>NOT RELEVANT</td>
</tr>
<tr>
<td>Lower explosion limit</td>
<td>NOT RELEVANT</td>
</tr>
<tr>
<td>Partition coefficient</td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td>Viscosity</td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td>% Volatiles</td>
<td>NOT AVAILABLE</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

- **Chemical stability**: Stable under recommended conditions of storage.
- **Conditions to avoid**: Avoid heat, sparks, open flames and other ignition sources.
- **Material to avoid**: Incompatible (sometimes violently) with oxidising agents (eg. hypochlorites), acids (especially hydrochloric - evolving chlorine gas), organic materials, reducing agents (eg. sulphites), metallic powders, amines, ammonia and heat sources. Hydrogen peroxide reacts with sodium hypochlorite. May evolve chlorine gas when heated to decomposition.
- **Hazardous Decomposition Products**: Polymerization will not occur.

11. TOXICOLOGICAL INFORMATION

- **Health Hazard Summary**: This product has the potential to cause adverse health effects. Use safe work practices to avoid eye or skin contact and inhalation. Over exposure to chlorine vapour may result in lung tissue damage. Do not mix with other chemicals unless advised and specific instructions provided, as toxic and irritating gases may be evolved. Use safe work practices to avoid over exposure. Upon dilution, the potential for corrosive effects may be reduced.
- **Eye**: Contact may result in irritation, lacrimation, pain, redness, corneal burns and possible permanent
Inhalation
Over exposure may result in mucous membrane irritation of the respiratory tract, coughing and possible burns. High level exposure may result in ulceration of the respiratory tract, breathing difficulties, chemical pneumonitis and pulmonary oedema.

Skin
Contact may result in irritation, redness, pain, rash, dermatitis and possible burns. Prolonged or repeated contact may result in ulceration.

Ingestion
Ingestion may result in burns to the mouth and throat, nausea, vomiting, ulceration of the gastrointestinal tract, breathing difficulties, circulatory collapse and coma.

Toxicity data
SODIUM HYPOCHLORITE (7681-52-9)
- LD50 (ingestion): 5800 mg/kg (mouse)
- TDLo (ingestion): 1 gm/kg (woman)
- TDLo (intravenous): 45 mg/kg (man)

SODIUM HYDROXIDE (1310-73-2)
- LD50 (intraperitoneal): 40 mg/kg (mouse)
- LDLo (ingestion): 500 mg/kg (rabbit)

12. ECOLOGICAL INFORMATION

Toxicity
Hypochlorites are extremely toxic to fish; Exposure to 0.5 % over 96 hours resulted in death of trout. Very toxic to aquatic organisms.

Persistence and degradability
Hypochlorites are non-persistent in the environment and there is no accumulation potential as they gradually decompose into a salt and oxygen.

Bioaccumulative potential
Hypochlorites are non-persistent in the environment and there is no accumulation potential as they gradually decompose into a salt and oxygen.

Mobility in soil
May leach to groundwater with resultant toxicity to aquatic organisms.

Other adverse effects
No information provided.

13. DISPOSAL CONSIDERATIONS

Waste disposal
Add to a large volume of reducing solution (eg thiosulphate, metabisulphite, but not carbon, sulphur or strong reducer) and acidify with 3M sulphuric acid. When reduction is complete, add mixture to water and neutralise. Absorb with sand or similar non-combustible material and dispose of to an approved landfill site. Contact the manufacturer for additional information.

Legislation
Dispose of in accordance with relevant local legislation.

14. TRANSPORT INFORMATION

CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE

LAND TRANSPORT (ADG)
- UN number: 1719
- Proper shipping name: CAUSTIC ALKALI LIQUID, N.O.S.
- DG class/ Division: 8
- Subsidiary risk(s): None Allocated
- Packing group: III
- GTEPG: 8A1
- Hazchem code: 2R
- EMS: F-A, S-B

SEA TRANSPORT (IMDG / IMO)
- UN number: 1719
- Proper shipping name: CAUSTIC ALKALI LIQUID, N.O.S.
- DG class/ Division: 8
- Subsidiary risk(s): None Allocated
- Packing group: III
- GTEPG: 8A1
- Hazchem code: 2R
- EMS: F-A, S-B

AIR TRANSPORT (IATA / ICAO)
- UN number: 1719
- Proper shipping name: CAUSTIC ALKALI LIQUID, N.O.S.
- DG class/ Division: 8
- Subsidiary risk(s): None Allocated
- Packing group: III
- GTEPG: 8A1
- Hazchem code: 2R
- EMS: F-A, S-B
15. REGULATORY INFORMATION

Poison schedule
Classified as a Schedule 5 (S5) Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).

Inventory Listing(s)
AUSTRALIA: AICS (Australian Inventory of Chemical Substances)
All components are listed on AICS, or are exempt.

16. OTHER INFORMATION

Additional information
RESPIRATORS: In general the use of respirators should be limited and engineering controls employed to avoid exposure. If respiratory equipment must be worn ensure correct respirator selection and training is undertaken. Remember that some respirators may be extremely uncomfortable when used for long periods. The use of air powered or air supplied respirators should be considered where prolonged or repeated use is necessary.

EXPOSURE STANDARDS - TIME WEIGHTED AVERAGES: Exposure standards are established on the premise of an 8 hour work period of normal intensity, under normal climatic conditions and where a 16 hour break between shifts exists to enable the body to eliminate absorbed contaminants. In the following circumstances, exposure standards must be reduced: strenuous work conditions; hot, humid climates; high altitude conditions; extended shifts (which increase the exposure period and shorten the period of recuperation).

PERSONAL PROTECTIVE EQUIPMENT GUIDELINES:
The recommendation for protective equipment contained within this report is provided as a guide only. Factors such as method of application, working environment, quantity used, product concentration and the availability of engineering controls should be considered before final selection of personal protective equipment is made.

HEALTH EFFECTS FROM EXPOSURE:
It should be noted that the effects from exposure to this product will depend on several factors including: frequency and duration of use; quantity used; effectiveness of control measures; protective equipment used and method of application. Given that it is impractical to prepare a ChemAlert report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.

Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGIH</td>
<td>American Conference of Governmental Industrial Hygienists</td>
</tr>
<tr>
<td>CAS #</td>
<td>Chemical Abstract Service number - used to uniquely identify chemical compounds</td>
</tr>
<tr>
<td>CNS</td>
<td>Central Nervous System</td>
</tr>
<tr>
<td>EC No.</td>
<td>EC No - European Community Number</td>
</tr>
<tr>
<td>GHS</td>
<td>Globally Harmonized System</td>
</tr>
<tr>
<td>IARC</td>
<td>International Agency for Research on Cancer</td>
</tr>
<tr>
<td>LD50</td>
<td>Lethal Dose, 50% / Median Lethal Dose</td>
</tr>
<tr>
<td>mg/m³</td>
<td>Milligrams per Cubic Metre</td>
</tr>
<tr>
<td>OEL</td>
<td>Occupational Exposure Limit</td>
</tr>
<tr>
<td>PEL</td>
<td>Permissible Exposure Limit</td>
</tr>
<tr>
<td>pH</td>
<td>relates to hydrogen ion concentration using a scale of 0 (high acidic) to 14 (highly alkaline).</td>
</tr>
<tr>
<td>ppm</td>
<td>Parts Per Million</td>
</tr>
<tr>
<td>REACH</td>
<td>Regulation on Registration, Evaluation, Authorisation and Restriction of Chemicals</td>
</tr>
<tr>
<td>STEL</td>
<td>Short-Term Exposure Limit</td>
</tr>
<tr>
<td>STOT-RE</td>
<td>Specific target organ toxicity (repeated exposure)</td>
</tr>
<tr>
<td>STOT-SE</td>
<td>Specific target organ toxicity (single exposure)</td>
</tr>
<tr>
<td>SUSMP</td>
<td>Standard for the Uniform Scheduling of Medicines and Poisons</td>
</tr>
<tr>
<td>SWA</td>
<td>Safe Work Australia</td>
</tr>
<tr>
<td>TLV</td>
<td>Threshold Limit Value</td>
</tr>
<tr>
<td>TWA</td>
<td>Time Weighted Average</td>
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</table>

Revision history

<table>
<thead>
<tr>
<th>Revision</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.2</td>
<td>Standard SDS Review</td>
</tr>
<tr>
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<td>Standard SDS Review</td>
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<td>Standard SDS Review</td>
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</tbody>
</table>
Product Name: CLAX HYPO 42A1

Report status

This document has been compiled by RMT on behalf of the manufacturer, importer or supplier of the product and serves as their Safety Data Sheet ('SDS').

It is based on information concerning the product which has been provided to RMT by the manufacturer, importer or supplier or obtained from third party sources and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for the product at the time of issue. Further clarification regarding any aspect of the product should be obtained directly from the manufacturer, importer or supplier.

While RMT has taken all due care to include accurate and up-to-date information in this SDS, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, RMT accepts no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this SDS.

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Revision: 2.2
SDS Date: 23 August 2013

End of SDS