1. SUBSTANCE IDENTIFICATION/ PREPARATION AND COMPANY DETAILS

Product Name: DISHWASHING MACHINE LIQUID
Supplier: Modern Teaching Aids
Street Address: Level 1
122-126 Old Pittwater Road
Brookvale
Australia
Telephone: 1800 251 497
Facsimile: 1800 151 492
Emergency Telephone Number: 1800 251 497

2. HAZARDS IDENTIFICATION

Hazardous according to criteria of Safe Work Australia
GHS classification:

Skin corrosion/irritation, Category 1A, H314
Serious eye damage/Eye irritation, Category 1, H318
Hazardous to the aquatic environment: Acute hazard, Category 1, H400

Signal word: Danger

Hazard statements:
EUH031: Contact with acids liberate toxic gas.
H314: Causes severe skin burns and eye damage.
H400: Very toxic to aquatic life.

Precautionary statements:
P102: Keep out of reach of children.
P103: Read label before use.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P391: Collect spillage.

Hazard Category:
C: Corrosive
N: Dangerous to the environment
R-phrase(s):
Safety Data Sheet

Product name: DISHWASHING MACHINE LIQUID
Substance ID: STGG0002
Issued: 29.09.2016
Version: 1.1
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R31: Contact with acids liberate toxic gas
R35: Causes severe burns
R41: Risk of serious damage to eyes
R50: Very toxic to aquatic organisms
S-phrase(s):
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.
S27: Take off immediately all contaminated clothing.
S28: After contact with skin, wash immediately with plenty of water.
S36/37/39: Wear suitable protective clothing, gloves and eye/face protection.
S50: Do not mix with acids, peroxides, metal salts and reducing agents

Classified as Dangerous Goods by the criteria of the Australian Dangerous Code (ADG Code) for transport by road or rail. Refer to relevant regulations for storage and transport requirements.
Class: 8 Corrosive

Poisons Schedule (Aust) / Toxic Substance(NZ):  S5

3. COMPOSITION/INFORMATION ON INGREDIENTS

Recommended use: Commercial Automatic Dishwashing Liquid
Appearance: Clear, colourless liquid with distinctive odour

<p>| | | | |</p>
<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Sodium hypochlorite</td>
<td>7681-52-9</td>
<td>&lt; 30%</td>
<td>R31, R34, R41, R50</td>
</tr>
<tr>
<td>Potassium Hydroxide</td>
<td>1310-58-3</td>
<td>&lt; 30%</td>
<td>R22 R35 R41</td>
</tr>
<tr>
<td>Alkaline Salts</td>
<td>&lt; 5%</td>
<td></td>
<td>R34 R37 R38 R41</td>
</tr>
<tr>
<td>Non Hazardous Components</td>
<td>&lt; 60%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

All the constituents of this material are listed on the Australian Inventory of Chemical Substances (AICS).

4. FIRST AID MEASURES

For advice, contact a Poisons Information Centre (Phone Australia 131 126) or a doctor

Ingestion: Rinse mouth with water. Give water to drink. Do NOT induce vomiting. Seek medical assistance.

Eye contact: Immediately irrigate with copious quantities of water for at least 15 minutes. Eyelids to be held open. Remove clothing if contaminated and wash skin. Seek immediate medical assistance.

Skin contact: Wash contaminated skin with plenty of water. Remove contaminated clothing and wash before reuse. If irritation occurs seek medical advice.

Inhalation: Remove victim from exposure - avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. Seek medical advice if effects persist.

Notes to physician: Treat symptomatically
5. FIRE-FIGHTING MEASURES

Specific Hazards: Non-combustible material.

Fire fighting further advice: Not combustible. Can decompose upon heating, liberating toxic fumes including those of chlorine. If safe to do so, remove containers from path of fire. Keep containers cool with water spray. Fire fighters to wear self-contained breathing apparatus if risk of exposure to products of decomposition.

Suitable extinguishing media: Not combustible, however, if involved in a fire use: Water fog (or if unavailable fine water spray), foam, dry agent (carbon dioxide, dry chemical powder).

Hazchem Code: 2X

6. ACCIDENTAL RELEASE MEASURES

Clear area of unprotected personnel. Wear protective equipment to prevent skin and eye contamination and inhalation of vapour. If contamination of sewers or waterways has occurred advise local emergency services.

Slippery when spilt. Avoid accidents clean up immediately. Wear protective equipment to prevent skin and eye contact and breathing in vapours. Work up wind or increase ventilation. Contain – prevent run off into drains and waterways. Use absorbent (soil, sand or other inert material) Collect and seal in properly labelled containers or drums for disposal

7. HANDLING AND STORAGE

Storage: Store in a cool (below 40°C), dry place out of direct sunlight in a well-ventilated area. Store away from acids, reducing agents. Store away from foodstuffs.

Handling: Avoid skin and eye contact and breathing in of vapours. Keep out of reach of children

This material is Scheduled Poison S5 and Dangerous Good Class 8 and must be stored, maintained and used in accordance with the relevant regulations

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

National occupational exposure limits: No value assigned for this specific material by the National Occupational Health and Safety Commission. However, Exposure Standards for constituents: -

Chlorine: Peak Limitation = 3mg/m³
Sodium hydroxide: Peak Limitation = 2mg/m³

As published by the National Occupational Health and Safety Commission. Peak Limitation – a ceiling concentration which should not be exceeded over a measurement period which should be as short as possible but not exceeding 15 minutes. These exposure standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept as low a level as workable.

Engineering measures: Ensure ventilation is adequate and that air concentrations of components are controlled below quoted Exposure Standards. Use with local exhaust ventilation. Keep containers closed when not in use.
Personal protection equipment: OVERALLS, SAFETY SHOES, CHEMICAL GOGGLES, GLOVES(S), DUST MASK. Avoid skin and eye contact and inhalation of vapour. Wear overalls, chemical goggles and impervious gloves. If risk of inhalation exists, wear air supplied respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storing or reusing.

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form / Colour / Odour</td>
<td>Liquid, pale yellow with slight chlorine odour.</td>
</tr>
<tr>
<td>Solubility</td>
<td>Miscible in water.</td>
</tr>
<tr>
<td>Specific Gravity (20C)</td>
<td>1.2</td>
</tr>
<tr>
<td>pH (10% aq soln.)</td>
<td>&gt;12</td>
</tr>
<tr>
<td>Solubility in water (g/L)</td>
<td>Miscible</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

Chemical Stability: Stable under normal ambient and anticipated storage and handling conditions of temperature and pressure. The amount of chlorine diminished with time.

Conditions to avoid: Avoid contact with foodstuffs. Avoid contact with acids

Incompatible materials: Incompatible with acids, metals, metal salts, ethylene diamine tetraacetic acid.

Hazardous decomposition products: Chlorine

Hazardous Reactions: Hazardous polymerisation will not occur. Reacts exothermically with acids liberating toxic gas (chlorine)

11. TOXICOLOGICAL INFORMATION

Main symptoms: No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms that may arise if the product is mishandled are:

Ingestion: Swallowing can result in vomiting, diarrhoea, abdominal pain and chemical burns of the gastrointestinal tract

Eye contact: A severe eye irritant. Corrosive to eyes; contact can cause corneal burns. Contamination of eyes can result in permanent injury.

Skin contact: Contact with the skin will result in severe irritation. Corrosive to skin – may cause skin burns.

Inhalation: Breathing in mists or aerosols may produce respiratory irritation.

Long term effects: No information available for product.

Acute toxicity / Chronic toxicity: No LD50 data available for product. However, for sodium hypochlorite: Oral LD50 (mice): 5800 mg/kg. SKIN (human): severe irritant
EYES (human): severe irritant.

12. ECOLOGICAL INFORMATION

Ecotoxicity: Avoid contaminating waterways.
Aquatic toxicity: Very toxic to aquatic organisms

13. DISPOSAL CONSIDERATIONS

Refer to State Land Waste Management Authority. Decontamination and destruction of containers should be considered.

14. TRANSPORT INFORMATION

Classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by road or rail.
UN-No: 3266
Class: 8 Corrosive
Hazchem Code: 2X
EPG: 8A1
Packing Group: II
Proper Shipping Name: CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S (CONTAINS POTASSIUM HYDROXIDE & HYPOCHLORITE)

Marine Transport: Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG) for transport by sea
UN-No: 3266
Class: 8 Corrosive
Hazchem Code: X
Packing Group: II
Proper Shipping Name: CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S (CONTAINS POTASSIUM HYDROXIDE & HYPOCHLORITE)

Air Transport: Classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) for transport by air.
UN-No: 3266
Class: 8 Corrosive
Hazchem Code: 2X
Packing Group: II
Proper Shipping Name: CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S (CONTAINS POTASSIUM HYDROXIDE & HYPOCHLORITE)

15. REGULATORY INFORMATION

Hazardous according to criteria of Safe Work Australia
Hazard Category
C: Corrosive
R-phrases(s)
R31: Contact with acids liberates toxic gas.
R34: Causes burns.
R41: Risk of serious damage to eyes.
S-phrase(s)
S25: Avoid contact with skin and eyes.
S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
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S50: Do not mix with acids, peroxides, metal salts and reducing agents

Poisons Schedule (Aust) / Toxic Substance (NZ): S5

All the constituents of this material are listed on the Australian Inventory of Chemical Substances (AICS).

16. OTHER INFORMATION

(1) Supplier Safety Data Sheet. This Material Safety Data sheet has been prepared by Stelco Chemicals Pty Ltd Issue Date: 1st May 2012 Reason for Issue: first version. This MSDS summarises at the date of issue our best knowledge of the health and safety information of the product, and in particular how to safely handle and use the product in the workplace. As each workplace is different each user must, prior to use, review thus MSDS in the context of how the user intends to handle and use the product in the workplace. If clarification of further information is needed to ensure that an appropriate assessment can be made, the user should contact this company.