Section 1 - Identification of The Material and Supplier

<table>
<thead>
<tr>
<th>Chemical nature:</th>
<th>Water solution of ingredients.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trade Name:</td>
<td>Spirit Bright As</td>
</tr>
<tr>
<td>Product Use:</td>
<td>Hard surface cleaner and sanitiser.</td>
</tr>
<tr>
<td>Creation Date:</td>
<td>July, 2009</td>
</tr>
<tr>
<td>This version issued:</td>
<td>October, 2012 and is valid for 5 years from this date.</td>
</tr>
</tbody>
</table>

Section 2 - Hazards Identification

Statement of Hazardous Nature
This product is classified as: N, Dangerous to the environment. C, Corrosive. Hazardous according to the criteria of SWA.
Dangerous according to the Australian Dangerous Goods (ADG) Code.

Risk Phrases: R31, R35, R51/53. Contact with acids liberates toxic chlorine gas. Causes severe burns. Toxic to aquatic organisms, may cause long-term adverse effects to the aquatic environment.

Safety Phrases: S14, S20, S23, S26, S28, S46, S61, S24/25, S36/37/39. Keep away from acids and reactive metals. When using, do not eat or drink. Do not breathe vapours or mists. In case of contact with eyes, rinse immediately with plenty of water and contact a doctor or Poisons Information Centre. After contact with skin, wash immediately with plenty of water. If swallowed, contact a doctor or Poisons Information Centre immediately and show this MSDS or label. Avoid release to the environment. Refer to special instructions/Safety Data Sheets. Avoid contact with skin and eyes. Wear suitable protective clothing, gloves and eye/face protection.

SUSMP Classification: S6
ADG Classification: Class 8: Corrosive Substances.
UN Number: 1791, HYPOCHLORITE SOLUTION

GHS Signal word: DANGER
HAZARD STATEMENT:
H290: May be corrosive to metals.
H314: Causes skin burns and eye damage.

PREVENTION
P234: Keep only in original container.
P260: Do not breathe fumes, mists, vapours or spray.
P264: Wash contacted areas thoroughly after handling.
P280: Wear protective gloves, protective clothing and eye or face protection.

RESPONSE
P310: Immediately call a POISON CENTER or doctor/physician.
P363: Wash contaminated clothing before reuse.
P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353: IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with water.
P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P370+P378: Not combustible. Use extinguishing media suited to burning materials. Water fog or fine spray is the preferred medium for large fires.

DISPOSAL
P501: Dispose of contents and containers to landfill.

Emergency Overview

Physical Description & Colour: Clear, colourless liquid.
Odour: Characteristic odour of chlorine.
**Major Health Hazards:** causes severe burns.

**Inhalation:**

**Short Term Exposure:** Available data indicates that if liquid enters nasal passages, it will cause pain and burn nasal membranes. Patients with inhalation burns may develop acute pulmonary oedema.

**Long Term Exposure:** No data for health effects associated with long term inhalation.

**Skin Contact:**

**Short Term Exposure:** Available data indicates that this product is corrosive to the skin. Capable of causing moderate to severe burns with ulceration. Can penetrate to deeper layers of skin, resulting in third degree burns. Corrosion will continue until product is removed or neutralised. Severity depends on concentration and duration of exposure. Burns may not be immediately painful; the onset of pain may be minutes to hours.

**Long Term Exposure:** No data for health effects associated with long term skin exposure.

**Eye Contact:**

**Short Term Exposure:** This product is very corrosive to eyes. It will quickly cause severe pain, and corrosion of the eye and surrounding facial tissues. Unless exposure is immediately treated, permanent blindness and facial scarring will occur.

**Long Term Exposure:** No data for health effects associated with long term eye exposure.

**Ingestion:**

**Short Term Exposure:** Significant oral exposure is considered to be unlikely. However, this product is very corrosive to the gastrointestinal tract. Capable of causing severe burns with deep ulceration, and can penetrate to deeper layers of skin resulting in third degree burns. Corrosion will continue until product is removed or neutralised. Severity depends on concentration and duration of exposure.

**Long Term Exposure:** No data for health effects associated with long term ingestion.

**Carcinogen Status:**

**SWA:** No significant ingredient is classified as carcinogenic by SWA.

**NTP:** No significant ingredient is classified as carcinogenic by NTP.

**IARC:** No significant ingredient is classified as carcinogenic by IARC.

### Section 3 - Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS No</th>
<th>Conc. %</th>
<th>TWA (mg/m³)</th>
<th>STEL (mg/m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>sodium hydroxide</td>
<td>1310-73-2</td>
<td>3-6</td>
<td>2</td>
<td>Peak</td>
</tr>
<tr>
<td>Sodium hypochlorite</td>
<td>7681-52-9</td>
<td>&gt;5</td>
<td>not set</td>
<td>not set</td>
</tr>
<tr>
<td>Other non hazardous ingredients</td>
<td>secret</td>
<td>to 100</td>
<td>not set</td>
<td>not set</td>
</tr>
</tbody>
</table>

This is a commercial product whose exact ratio of components may vary slightly. Minor quantities of other non hazardous ingredients are also possible.

The SWA TWA exposure value is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week. The STEL (Short Term Exposure Limit) is an exposure value that may be equalled (but should not be exceeded) for no longer than 15 minutes and should not be repeated more than 4 times per day. There should be at least 60 minutes between successive exposures at the STEL. The term "peak "is used when the TWA limit, because of the rapid action of the substance, should never be exceeded, even briefly.

### Section 4 - First Aid Measures

**General Information:**

You should call The Poisons Information Centre if you feel that you may have been poisoned, burned or irritated by this product. The number is 13 1126 from anywhere in Australia (0800 764 766 in New Zealand) and is available at all times. Have this MSDS with you when you call.

**Inhalation:** First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

**Skin Contact:** Flush contaminated area with lukewarm, gently flowing water for at least 40 minutes, by the clock. DO NOT INTERRUPT FLUSHING. If necessary, keep emergency vehicle waiting (show paramedics this MSDS and take their advice). Under running water, remove contaminated clothing, shoes and leather goods (eg watchbands and belts). Strongly basic ingredients tend to penetrate the skin and so need longer rinsing than other substances. If irritation persists, repeat flushing. Seek medical attention.

**Eye Contact:** Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for at least 60 minutes, by the clock, while holding the eyelid(s) open. Neutral saline solution may be used as soon as it is available. DO NOT INTERRUPT FLUSHING. If necessary, keep emergency vehicle waiting (show paramedics this MSDS and take their advice). Take care not to rinse contaminated water into the unaffected eye or onto face. Call a Poisons Information Centre or a doctor urgently. Take special care if exposed person is wearing contact lenses.
Ingestion: If swallowed, do NOT induce vomiting; rinse mouth thoroughly with water and contact a Poisons Information Centre. Urgent hospital treatment is likely to be needed. Give activated charcoal if instructed.

Section 5 - Fire Fighting Measures

Fire and Explosion Hazards: There is little risk of an explosion from this product if commercial quantities are involved in a fire. Only small quantities of decomposition products are expected from this product at temperatures normally achieved in a fire. This will only occur after heating to dryness. Fire decomposition products from this product may be toxic if inhaled. Take appropriate protective measures.

Extinguishing Media: Water fog or fine spray is the preferred medium for large fires. Try to contain spills, minimise spillage entering drains or water courses.

Fire Fighting: If a significant quantity of this product is involved in a fire, call the fire brigade. There is little danger of a violent reaction or explosion if significant quantities of this product are involved in a fire. Recommended personal protective equipment is liquid-tight chemical protective clothing and breathing apparatus.

Flash point: Does not burn.

Upper Flammability Limit: Does not burn.

Lower Flammability Limit: Does not burn.

Autoignition temperature: Not applicable - does not burn.

Flammability Class: Does not burn.

Section 6 - Accidental Release Measures

Accidental release: In the event of a major spill, prevent spillage from entering drains or water courses. Evacuate the spill area and deny entry to unnecessary and unprotected personnel. Wear full protective chemically resistant clothing including eye/face protection, gauntlets and self contained breathing apparatus. See below under Personal Protection regarding Australian Standards relating to personal protective equipment. Suitable materials for protective clothing include rubber, Viton, Nitrile, butyl rubber, Barricade, neoprene, Teflon, polyethylene, PE/EVAL, Saranex.

Responder. Eye/face protective equipment should comprise as a minimum, protective goggles. If there is a significant chance that vapours or mists are likely to build up in the cleanup area, we recommend that you use a respirator. Usually, no respirator is necessary when using this product. However, if you have any doubts consult the Australian Standard mentioned below (section 8).

Stop leak if safe to do so, and contain spill. Absorb onto sand, vermiculite or other suitable absorbent material. If spill is too large or if absorbent material is not available, try to create a dike to stop material spreading or going into drains or waterways. Because of the corrosiveness of this product, special personal care should be taken in any cleanup operation. Sweep up and shovel or collect recoverable product into labelled containers for recycling or salvage, and dispose of promptly. Recycle containers wherever possible after careful cleaning. After spills, wash area preventing runoff from entering drains. If a significant quantity of material enters drains, advise emergency services. Contaminated area may be neutralised by washing with weak or dilute acid. Vinegar, citrus juice and most soft drinks may be suitable. This material may be suitable for approved landfill. Ensure legality of disposal by consulting regulations prior to disposal. Thoroughly launder protective clothing before storage or re-use. Advise laundry of nature of contamination when sending contaminated clothing to laundry.

Section 7 - Handling and Storage

Handling: Keep exposure to this product to a minimum, and minimise the quantities kept in work areas. Check Section 8 of this MSDS for details of personal protective measures, and make sure that those measures are followed. The measures detailed below under "Storage" should be followed during handling in order to minimise risks to persons using the product in the workplace. Also, avoid contact or contamination of product with incompatible materials listed in Section 10.

Storage: This product is a Scheduled Poison. Observe all relevant regulations regarding sale, transport and storage of this schedule of poison. Store in a cool, well ventilated area. Check containers periodically for corrosion and leaks. Containers should be kept closed in order to minimise contamination. Make sure that the product does not come into contact with substances listed under "Incompatibilities" in Section 10. If you keep more than 2500kg or L of Dangerous Goods of Packaging Group II, you may be required to license the premises or notify your Dangerous Goods authority. If you have any doubts, we suggest you contact your Dangerous Goods authority in order to clarify your obligations. Check packaging - there may be further storage instructions on the label.

Section 8 - Exposure Controls and Personal Protection

The following Australian Standards will provide general advice regarding safety clothing and equipment:

SAFETY DATA SHEET

Issued by: Spirit Marble & Tile Care pty ltd Phone: 02 9734 6937 (business hours only)
Poisons Information Centre: 13 1126 from anywhere in Australia, (0800 764 766 in New Zealand)

Section 9 - Physical and Chemical Properties:

Physical Description & colour: Clear, colourless liquid.
Odour: Characteristic odour of chlorine.
Boiling Point: Approximately 100°C at 100kPa.
Freezing/Melting Point: Below 0°C.
Vapour Pressure: 2.37 kPa at 20°C (water vapour pressure).
Vapour Density: No data.
Water Solubility: Completely soluble in water.
Specific Gravity: 1.1 approx
pH: 12-13
Volatility: No data.
Odour Threshold: No data.
Evaporation Rate: No data.
Coeff Oil/water Distribution: No data
Autoignition temp: Not applicable - does not burn.

Section 10 - Stability and Reactivity

Reactivity: Most strong alkalis and bases react with inorganic and organic acids to form salts. They can also react with some metals liberating hydrogen gas. These reactions may be rapid and sometimes liberate much heat. They can also decompose many organic materials such as esters, in a reaction called hydrolysis.

Conditions to Avoid: This product should be kept in a cool place, preferably below 30°C. Keep containers tightly closed. Keep containers and surrounding areas well ventilated. Under no circumstances should the container be sealed. Keep isolated from combustible materials.

Incompatibilities: acids, zinc, tin, aluminium and their alloys.

Fire Decomposition: Only small quantities of decomposition products are expected from this products at temperatures normally achieved in a fire. This will only occur after heating to dryness. Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Hydrogen chloride gas, other compounds of chlorine. Water, sodium compounds, sodium compounds. Carbon monoxide poisoning produces headache, weakness, nausea, dizziness, confusion, dimness of vision, disturbance of judgment, and unconsciousness followed by coma and death.

Polymerisation: This product will not undergo polymerisation reactions.

Section 11 - Toxicological Information

Local Effects: There is no data to hand indicating any particular target organs.
Target Organ: No data.

Classification of Hazardous Ingredients

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Risk Phrases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Hydroxide</td>
<td>Conc&gt;=5%: C; R35</td>
</tr>
<tr>
<td>Sodium Hypochlorite</td>
<td>&gt;=5%Conc&lt;10%: Xi; R36/38; R31</td>
</tr>
</tbody>
</table>
Section 12 - Ecological Information

Toxic to aquatic organisms, may cause long-term adverse effects to the aquatic environment.

Section 13 - Disposal Considerations

Disposal: This product may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use. If it has been contaminated, it may be possible to separate the contamination in some way. Only if neither of these options is suitable, consider landfill, but we recommend that it be neutralised in a controlled manner before disposal.

Section 14 - Transport Information

ADG Code: 1791, HYPOCHLORITE SOLUTION
Hazchem Code: 2X
Special Provisions: None allocated
Limited quantities: ADG 7 specifies a Limited Quantity value of 1 L for this class of product.
Dangerous Goods Class: Class 8: Corrosive Substances.
Packaging Group: II
Packaging Method: P001, IBC02

Class 8 Corrosive Substances shall not be loaded in the same vehicle or packed in the same freight container with Classes 1 (Explosives), 4.3 (Dangerous When Wet Substances), 5.1 (Oxidising Agents), 5.2 (Organic Peroxides), 6 (Toxic Substances where the Toxic Substances are cyanides and the Corrosives are acids), 7 (Radioactive Substances), Foodstuffs and foodstuff empties. They may however be loaded in the same vehicle or packed in the same freight container with Classes 2.1 (Flammable Gases), 2.2 (Non-Flammable, Non-Toxic Gases), 2.3 (Poisonous Gases), 3 (Flammable liquids), 4.1 (Flammable Solids), 4.2 (Spontaneously Combustible Substances), 6 (Toxic Substances except where the Toxic Substances are cyanides and the Corrosives are acids) and 9 (Miscellaneous Dangerous Goods).

Section 15 - Regulatory Information

AICS: All of the significant ingredients in this formulation are compliant with NICNAS regulations.
The following ingredients: sodium hydroxide, Sodium hypochlorite, are mentioned in the SUSMP.

Section 16 - Other Information

This MSDS contains only safety-related information. For other data see product literature.

Acronyms:

ADG Code: Australian Code for the Transport of Dangerous Goods by Road and Rail (7th edition)
AICS: Australian Inventory of Chemical Substances
SWA: Safe Work Australia, formerly ASCC and NOHSC
CAS number: Chemical Abstracts Service Registry Number
Hazchem Code: Emergency action code of numbers and letters that provide information to emergency services especially firefighters
IARC: International Agency for Research on Cancer
NTP: National Toxicology Program (USA)
R-Phrase: Risk Phrase
SUSMP: Standard for the Uniform Scheduling of Medicines & Poisons
UN Number: United Nations Number

This MSDS summarises our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user must review this MSDS in the context of how the product will be handled and used in the workplace.

If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company so we can attempt to obtain additional information from our suppliers.

Our responsibility for products sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available on request.

Please read all labels carefully before using product.

This MSDS is prepared in accord with the SWA document “Preparation of Safety Data Sheets for Hazardous Chemicals - Code of Practice” (December 2011)
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http://www.kilford.com.au/ Phone (02)9251 4532

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