SECTION 1 - IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Chemical nature: Blend of ingredients presented as an aerosol.
Trade Name: Lo-Chlor Hydra-Slip Spray
Product Code: 41
Product Use: Lubrication of swimming pool equipment.
Creation Date: June, 2004
This version issued: March, 2010 and is valid for 5 years from this date.

SECTION 2 - HAZARDS IDENTIFICATION

Statement of Hazardous Nature
This product is classified as: Hazardous according to the criteria of SWA Australia. Dangerous according to the Australian Dangerous Goods (ADG) Code.

Risk Phrases: R40, R66. Possible risk of irreversible effects. Repeated exposure may cause skin dryness or cracking.
Safety Phrases: S20, S24. When using, do not eat or drink. Avoid contact with skin.
SUSDP Classification: S6
ADG Classification: 2
UN Number: 1950, AEROSOLS

Emergency Overview

Physical Description & colour: Clear liquid.
Odour: Characteristic odour.
Major Health Hazards: may cause irreversible effects, harmful if swallowed.

Potential Health Effects

Inhalation
Short term exposure: Significant inhalation exposure is considered to be unlikely. Available data indicates that this product is not harmful. However product may be mildly irritating, although unlikely to cause anything more than mild transient discomfort.
Long Term exposure: This product is carcinogenic by inhalation exposure.

Skin Contact:
Short term exposure: Major health effect from this product is misuse of the aerosol function. If sprayed continuously on skin or in eyes, it can cause frostbite.
Long Term exposure: No data for health effects associated with long term skin exposure.

Eye Contact:
Short term exposure: Exposure via eyes is considered to be unlikely. If sprayed directly in the eye, this product will irritate. If spraying is prolonged, it may cause damage through frostbite.
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. Available data shows that this product is harmful, but symptoms are not available. This product is unlikely to cause any irritation problems in the short or long term.
Long Term exposure: No data for health effects associated with long term ingestion.

Carcinogen Status:
SWA: Perchloroethylene is classed by SWA as being possibly carcinogenic to humans.
NTP: Perchloroethylene is classed by NTP as reasonably anticipated to be a Human carcinogen.
IARC: Perchloroethylene is classed by IARC as probably carcinogenic to humans.

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>Dimethylpolysiloxanes</td>
<td>63148-62-9</td>
<td>3-10</td>
<td>not set</td>
<td>not set</td>
</tr>
<tr>
<td>Perchloroethylene</td>
<td>127-18-4</td>
<td>10-30</td>
<td>340</td>
<td>1020</td>
</tr>
<tr>
<td>Butane</td>
<td>106-97-8</td>
<td>10-30</td>
<td>1900</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 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 should not be exceeded for more than 15 minutes and should not be repeated for 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: No first aid measures normally required. However, if inhalation has occurred, and irritation has developed, remove to fresh air and observe until recovered. Apply artificial respiration if not breathing. If irritation becomes painful or persists more than about 30 minutes, seek medical advice.

Skin Contact: Irritation is unlikely. However, if irritation does occur, flush with lukewarm, gently flowing water for 5 minutes or until chemical is removed. If in doubt obtain medical advice.

Eye Contact: No effects expected. If irritation does occur, flush contaminated eye(s) with lukewarm, gently flowing water for 5 minutes or until the product is removed. Obtain medical advice if irritation becomes painful or lasts more than a few minutes.

Ingestion: If swallowed, do NOT induce vomiting. Wash mouth with water and contact a Poisons Information Centre, or call a doctor.

SECTION 5 - FIRE FIGHTING MEASURES

Fire and Explosion Hazards: There is a moderate risk of an explosion from this product if commercial quantities are involved in a fire. Firefighters should take care and appropriate precautions. Violent steam generation or eruption may occur upon application of direct water stream on hot liquids. Vapours from this product are heavier than air and may accumulate in sumps, pits and other low-lying spaces, forming potentially explosive mixtures. They may also flash back considerable distances. 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 a danger of a violent reaction or explosion if significant quantities of this product are involved in a fire. Recommended personal protective equipment is full fire kit and and breathing apparatus.

Flash point: Propellant is very flammable; liquid component is not.

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. Immediately call the Fire Brigade.
minimum, wear overalls, goggles and gloves. Suitable materials for protective clothing include rubber, PVC. Eye/face protective equipment should comprise as a minimum, protective glasses and, preferably, 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. It should be fitted with a type A cartridge, suitable for organic vapours. Otherwise, not normally necessary. 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. Take suitable precautions eg use of non-sparking equipment to avoid creating sparks or flames which may ignite the spilled material. Leaking gases may form an explosion hazard. Any equipment capable of building an electrostatic charge should be electrically grounded. Sweep up and shovel or collect recoverable product into labelled containers for recycling or disposal, 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. 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 class of poison. Store in a cool, well ventilated area, and make sure that surrounding electrical devices and switches are suitable. Check containers and valves periodically for leaks. If you keep more than 25kg of flammable gases, you probably require a license to do so. If you have any doubts, we suggest you contact your licensing 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:


<table>
<thead>
<tr>
<th>SWA Exposure Limits</th>
<th>TWA (mg/m³)</th>
<th>STEL (mg/m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perchloroethylene</td>
<td>340</td>
<td>1020</td>
</tr>
<tr>
<td>Butane</td>
<td>1900</td>
<td>not set</td>
</tr>
</tbody>
</table>

No special equipment is usually needed when occasionally handling small quantities. The following instructions are for bulk handling or where regular exposure in an occupational setting occurs without proper containment systems.

**Ventilation:** No special ventilation requirements are normally necessary for this product. However make sure that the work environment remains clean and that vapours and mists are minimised.

**Eye Protection:** Eye protection such as protective glasses or goggles is recommended when this product is being used.

**Skin Protection:** You should avoid contact even with mild skin irritants. Therefore you should wear suitable impervious elbow-length gloves and facial protection when handling this product. See below for suitable material types.

**Protective Material Types:** We suggest that protective clothing be made from the following materials: rubber, PVC.

**Respirator:** Usually, no respirator is necessary when using this product. However, if you have any doubts consult the Australian Standard mentioned above. Otherwise, not normally necessary. Safety deluge showers should be provided near to where this product is being used.

**SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES:**

- **Physical Description & colour:** Clear liquid.
- **Odour:** Characteristic odour.
- **Boiling Point:** Approx 120°C at 100kPa (liquid phase).
- **Freezing/Melting Point:** No specific data. Solid at normal temperatures.
Volatiles: Approx 90%
Vapour Pressure: No data.
Vapour Density: No data.
Specific Gravity: 1.6
Water Solubility: Negligible.
pH: No data.
Vapour Density: No data.
Odour Threshold: No data.
Evaporation Rate: No data.
Coeff Oil/water distribution: No data.
Autoignition temp: No data.

SECTION 10 - STABILITY AND REACTIVITY

Reactivity: This product is unlikely to react or decompose under normal storage conditions. However, if you have any doubts, contact the supplier for advice on shelf life properties.

Conditions to Avoid: This product should be kept in a cool place, preferably below 30°C. Keep away from sources of sparks or ignition. Any electrical equipment in the area of this product should be flame proofed. Store in the closed original container in a dry, cool, well-ventilated area out of direct sunlight.

Incompatibilities: strong oxidising agents.

Fire Decomposition: Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Hydrogen chloride gas, other compounds of chlorine. Water. silicon 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 is unlikely to undergo polymerisation processes.

SECTION 11 - TOXICOLOGICAL INFORMATION

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

Classification of Hazardous Ingredients

Ingredient | Risk Phrases
---|---
Perchloroethylene | Conc≥1%: Xn; R40

SECTION 12 - ECOLOGICAL INFORMATION

Insufficient data to be sure of status.

SECTION 13 - DISPOSAL CONSIDERATIONS

Disposal: Containers should be emptied as completely as practical before disposal. If possible, recycle containers either in-house or send to recycle company. If this is not practical, send to a commercial waste disposal site. Do not puncture or incinerate cans, even when empty. Please do NOT dispose into sewers or waterways.

SECTION 14 - TRANSPORT INFORMATION

ADG Code: 1950, AEROSOLS
Hazchem Code: 2YE
Special Provisions: 63, 190, 277
Limited quantities: ADG 7 specifies a Limited Quantity value of See SP 277 for this class of product.
Dangerous Goods Class: Class 2.1, Flammable gases.
Packaging Group: Not set
Packaging Method: P003
Class 2.1 Flammable gases shall not be loaded in the same vehicle or packed in the same freight container with Classes 1 (Explosives), 3 (Flammable Liquids) (where both flammable liquids and flammable gases are in bulk), 4.1 (Flammable Solids), 4.2 (Spontaneously Combustible Substances), 4.3 (Dangerous When Wet Substances), 5.1 (Oxidising Agents), 5.2 (Organic Peroxides), and 7 (Radioactive Substances). They may however be loaded in the same vehicle or packed in the same freight container with Classes 2.2 (Non-flammable Non-Toxic gases), 3 (Flammable liquids except where both flammable liquids and flammable gases are in bulk), 6 (Toxic Substances), 8 (Corrosive Substances) 9 (Miscellaneous dangerous goods), Foodstuffs and foodstuff empties.

**SECTION 15 - REGULATORY INFORMATION**

AICS: All of the significant ingredients in this formulation are to be found in the public AICS Database. The following ingredients: Perchloroethylene, are mentioned in the SUSDP.

**SECTION 16 - OTHER INFORMATION**

See our web site at www.lo-chlor.com

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

Acronyms:

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADG Code</td>
<td>Australian Code for the Transport of Dangerous Goods by Road and Rail, 7th Edition</td>
</tr>
<tr>
<td>AICS</td>
<td>Australian Inventory of Chemical Substances</td>
</tr>
<tr>
<td>CAS number</td>
<td>Chemical Abstracts Service Registry Number</td>
</tr>
<tr>
<td>Hazchem Number</td>
<td>Emergency action code of numbers and letters that provide information to emergency services especially firefighters</td>
</tr>
<tr>
<td>IARC</td>
<td>International Agency for Research on Cancer</td>
</tr>
<tr>
<td>SWA</td>
<td>Safe Work Australia, formerly ASCC and NOHSC</td>
</tr>
<tr>
<td>NOS</td>
<td>Not otherwise specified</td>
</tr>
<tr>
<td>NTP</td>
<td>National Toxicology Program (USA)</td>
</tr>
<tr>
<td>R-Phrase</td>
<td>Risk Phrase</td>
</tr>
<tr>
<td>SUSDP</td>
<td>Standard for the Uniform Scheduling of Drugs &amp; Poisons</td>
</tr>
<tr>
<td>UN Number</td>
<td>United Nations Number</td>
</tr>
</tbody>
</table>

**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 “National Code of Practice for the Preparation of Material Safety Data Sheets” 2nd Edition [NOHSC:2011(2003)]

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