Liquid Super Ick Cure
Mars (Mars Fishcare)
Chemwatch: 4658-22
Version No: 6.1.1.1
Safety Data Sheet according to OSHA HazCom Standard (2012) requirements

SECTION 1 IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

Product Identifier

<table>
<thead>
<tr>
<th>Product name</th>
<th>Liquid Super Ick Cure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemical Name</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Synonyms</td>
<td>Solution ID# 3305</td>
</tr>
<tr>
<td>Proper shipping name</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Chemical formula</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Other means of identification</td>
<td>Not Available</td>
</tr>
<tr>
<td>CAS number</td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>

Relevant identified uses of the substance or mixture and uses advised against

<table>
<thead>
<tr>
<th>Relevant identified uses</th>
<th>Use according to manufacturer's directions.</th>
</tr>
</thead>
<tbody>
<tr>
<td>For product 12.</td>
<td></td>
</tr>
</tbody>
</table>

Details of the supplier of the safety data sheet

<table>
<thead>
<tr>
<th>Registered company name</th>
<th>Mars (Mars Fishcare)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address</td>
<td>50 East Hamilton Street Chalfont 18914 PA United States</td>
</tr>
<tr>
<td>Telephone</td>
<td>+1 215 822 8181</td>
</tr>
<tr>
<td>Fax</td>
<td>+1 215 822 1906</td>
</tr>
<tr>
<td>Website</td>
<td>Not Available</td>
</tr>
<tr>
<td>Email</td>
<td>Not Available</td>
</tr>
</tbody>
</table>

Emergency telephone number

<table>
<thead>
<tr>
<th>Association / Organisation</th>
<th>Not Available</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency telephone numbers</td>
<td>Not Available</td>
</tr>
<tr>
<td>Other emergency telephone numbers</td>
<td>Not Available</td>
</tr>
</tbody>
</table>

SECTION 2 HAZARDS IDENTIFICATION

Classification of the substance or mixture

<table>
<thead>
<tr>
<th>CHEMWATCH HAZARD RATINGS</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammability</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Toxicity</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Body Contact</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Reactivity</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Chronic</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GHS Classification</th>
<th>Not Applicable</th>
</tr>
</thead>
</table>

Legend:

Label elements

| GHS label elements | Not Available |

SIGNAL WORD

| NOT APPLICABLE |

Hazard statement(s)
Not Applicable

Precautionary statement(s): Prevention
Not Applicable

Precautionary statement(s): Response

Continued...
SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Substances
See section below for composition of Mixtures

Mixtures

<table>
<thead>
<tr>
<th>CAS No</th>
<th>% [weight]</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>2437-29-8</td>
<td>&lt;0.1</td>
<td>malachite green oxalate, as C.I. Basic Green 4 (oxalate)</td>
</tr>
</tbody>
</table>

SECTION 4 FIRST AID MEASURES

Description of first aid measures

| Eye Contact | If this product comes in contact with eyes:  
Wash out immediately with water.  
If irritation continues, seek medical attention.  
Removal of contact lenses after an eye injury should only be undertaken by skilled personnel. |
|-------------|----------------------------------------------------------------------------------|
| Skin Contact| If skin or hair contact occurs:  
Flush skin and hair with running water (and soap if available).  
Seek medical attention in event of irritation. |
| Inhalation  | If fumes, aerosols or combustion products are inhaled remove from contaminated area.  
Other measures are usually unnecessary. |
| Ingestion   | Immediately give a glass of water.  
First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor. |

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5 FIREFIGHTING MEASURES

Extinguishing media

- There is no restriction on the type of extinguisher which may be used.
- Use extinguishing media suitable for surrounding area.

Special hazards arising from the substrate or mixture

<table>
<thead>
<tr>
<th>Fire Incompatibility</th>
<th>None known.</th>
</tr>
</thead>
</table>

Advice for firefighters

| Fire Fighting          | Use water delivered as a fire spray to control fire and cool adjacent 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 | 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 | Clear area of personnel and move upwind.  
Alert Fire Brigade and tell them location and nature of hazard.  
Control personal contact with the substance, by using protective equipment.  
Prevent spillage from entering drains, sewers or water courses.  
Recover product wherever possible.  
Put residues in labelled containers for disposal.  
If contamination of drains or waterways occurs, advise emergency services. |
SECTION 7 HANDLING AND STORAGE

Precautions for safe handling

- Limit all unnecessary personal contact.
- Wear protective clothing when risk of exposure occurs.
- Use in a well-ventilated area.
- 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.
- Work clothes should be laundered separately.
- Use good occupational work practice.
- Observe manufacturer's storage and handling recommendations contained within this MSDS.
- Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.

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 MSDS.

Conditions for safe storage, including any incompatibilities

Suitable container
- Polyethylene or polypropylene container.
- Packing as recommended by manufacturer.
- Check all containers are clearly labelled and free from leaks.

Storage incompatibility
- Avoid contamination of water, foodstuffs, feed or seed.
- None known

PACKAGE MATERIAL INCOMPATIBILITIES

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

OCCUPATIONAL EXPOSURE LIMITS (OEL)

INGREDIENT DATA

Not Available

EMERGENCY LIMITS

Ingredient

<table>
<thead>
<tr>
<th>Liquid Super Ick Cure</th>
<th>TEEL-0</th>
<th>TEEL-1</th>
<th>TEEL-2</th>
<th>TEEL-3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not Available</td>
<td>Not Available</td>
<td>Not Available</td>
<td>Not Available</td>
</tr>
</tbody>
</table>

Ingredient

<table>
<thead>
<tr>
<th>Liquid Super Ick Cure</th>
<th>Original IDLH</th>
<th>Revised IDLH</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not Available</td>
<td>Not Available</td>
</tr>
</tbody>
</table>

MATERIAL DATA

Exposure controls

Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers, and will typically be independent of worker interactions to provide this high level of protection. The basic types of engineering controls are:
- Process controls which involve changing the way a job activity or process is done to reduce the risk.
- Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment. Ventilation can remove or dilute an air contaminant if designed properly. The design of a ventilation system must match the particular process and chemical or contaminant in use.
- Employers may need to use multiple types of controls to prevent employee overexposure.
- General exhaust is adequate under normal operating conditions. If risk of overexposure exists, wear SAA approved respirator. Correct fit is essential to obtain adequate protection. Provide adequate ventilation in warehouse or closed storage areas. Air contaminants generated in the workplace possess varying "escape" velocities which, in turn, determine the "capture velocities" of fresh circulating air required to effectively remove the contaminant.

- Appropriate engineering controls

<table>
<thead>
<tr>
<th>Type of Contaminant</th>
<th>Air Speed</th>
</tr>
</thead>
<tbody>
<tr>
<td>solvent, vapours, degreasing etc., evaporating from tank (in still air)</td>
<td>0.25-0.5 m/s (50-100 f/min)</td>
</tr>
<tr>
<td>aerosols, fumes from pouring operations, intermittent container filling, low speed conveyor transfer, welding, spray drift, plating acid fumes, picking (released at low velocity into zone of active generation)</td>
<td>0.5-1 m/s (100-200 f/min.)</td>
</tr>
<tr>
<td>direct spray, spray painting in shallow booths, drum filling, conveyor loading, crusher dusts, gas discharge (active generation into zone of rapid air motion)</td>
<td>1-2.5 m/s (200-500 f/min)</td>
</tr>
</tbody>
</table>

Continued...
grinding, abrasive blasting, tumbling, high speed wheel generated
dusts (released at high initial velocity into zone of very high rapid
air motion).

2.5-10 m/s (500-2000 f/min.)

Within each range the appropriate value depends on:

<table>
<thead>
<tr>
<th>Lower end of the range</th>
<th>Upper end of the range</th>
</tr>
</thead>
<tbody>
<tr>
<td>1: Room air currents minimal or favourable to capture</td>
<td>1: Disturbing room air currents</td>
</tr>
<tr>
<td>2: Contaminants of low toxicity or of nuisance value only</td>
<td>2: Contaminants of high toxicity</td>
</tr>
<tr>
<td>3: Intermittent, low production.</td>
<td>3: High production, heavy use</td>
</tr>
<tr>
<td>4: Large hood or large air mass in motion</td>
<td>4: Small hood - local control only</td>
</tr>
</tbody>
</table>

Simple theory shows that air velocity falls rapidly with distance away from the opening of a simple extraction pipe. Velocity generally decreases with the square of distance from the extraction point (in simple cases). Therefore the air speed at the extraction point should be adjusted, accordingly, after reference to distance from the contaminating source. The air velocity at the extraction fan, for example, should be a minimum of 1.2 m/s (200-400 f/min.) for extraction of solvents generated in a tank 2 meters distant from the extraction point. Other mechanical considerations, producing performance deficits within the extraction apparatus, make it essential that theoretical air velocities are multiplied by factors of 10 or more when extraction systems are installed or used.

Personal protection

Eye and face protection

- Safety glasses with side shields
- Chemical goggles.
- Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lens or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. 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. [CDC NIOSH Current Intelligence Bulletin 59], [AS/NZS 1336 or national equivalent]

Skin protection

See Hand protection below

Hand protection

Wear general protective gloves, eg. light weight rubber gloves.

Body protection

See Other protection below

Other protection

No special equipment needed when handling small quantities.

OTHERWISE:

- Overalls.
- Barrier cream.
- Eyewash unit.

Thermal hazards

Recommended material(s)

GLOVE SELECTION INDEX

Glove selection is based on a modified presentation of the: "Forsberg Clothing Performance Index". The effect(s) of the following substance(s) are taken into account in the computer-generated selection:

Liquid Super Ick Cure Not Available

<table>
<thead>
<tr>
<th>Material</th>
<th>CPI</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* CPI - Chemwatch Performance Index
A: Best Selection
B: Satisfactory; may degrade after 4 hours continuous immersion
C: Poor to Dangerous Choice for other than short term immersion

NOTE: As a series of factors will influence the actual performance of the glove, a final selection must be based on detailed observation. -

* Where the glove is to be used on a short term, casual or infrequent basis, factors such as "feel" or convenience (e.g. disposability), may dictate a choice of gloves which might otherwise be unsuitable following long-term or frequent use. A qualified practitioner should be consulted.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Appearance</th>
<th>Dark bluish green slightly acidic liquid with no odour; mixes with water.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid</td>
</tr>
<tr>
<td>Odour</td>
<td>Not Available</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>Not Available</td>
</tr>
<tr>
<td>pH (as supplied)</td>
<td>3.4-6.5</td>
</tr>
</tbody>
</table>
Chemical stability
- Presence of incompatible materials.
- Product is considered stable.
- Hazardous polymerisation will not occur.

SECTION 10 STABILITY AND REACTIVITY

Reactivity
See section 7

Chemical stability
- 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 is not thought to produce adverse health effects or irritation of the respiratory tract (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting.

Ingestion
The material has NOT been classified by EC Directives or other classification systems as "harmful by ingestion". This is because of the lack of corroborating animal or human evidence. The material may still be damaging to the health of the individual, following ingestion, especially where pre-existing organ (e.g liver, kidney) damage is evident. Present definitions of harmful or toxic substances are generally based on doses producing mortality rather than those producing morbidity (disease, ill-health). Gastrointestinal tract discomfort may produce nausea and vomiting. In an occupational setting however, ingestion of insignificant quantities is not thought to be cause for concern.

Skin Contact
The material is not thought to produce adverse health effects or skin irritation following contact (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable gloves be used in an occupational setting.

Eye
Although the liquid is not thought to be an irritant (as classified by EC Directives), direct contact with the eye may produce transient discomfort characterised by tearing or conjunctival redness (as with windburn).

Chronic
Long-term exposure to the product is not thought to produce chronic effects adverse to health (as classified by EC Directives using animal models); nevertheless exposure by all routes should be minimised as a matter of course.

Liquid Super Ick Cure

<table>
<thead>
<tr>
<th>TOXICITY</th>
<th>IRRITATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Available</td>
<td>Not Available</td>
</tr>
</tbody>
</table>

C.I. Basic Green 4 (oxalate)

<table>
<thead>
<tr>
<th>TOXICITY</th>
<th>IRRITATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral (mouse) LD50: 50 mg/kg</td>
<td>Eye (rabbit): 78 mg/kg SEVERE</td>
</tr>
<tr>
<td>Oral (rat) LD50: 275 mg/kg</td>
<td>Not Available</td>
</tr>
</tbody>
</table>

Not available. Refer to individual constituents.

The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.

Malachite green and its major metabolite, leuco-malachite green has been reported to have mutagenic and carcinogenic effects. Rats fed malachite green experience "a dose-related increase in liver DNA adducts" along with lung adenomas. Leuco-malachite green causes an "increase in the number and severity of change". As leuco-malachite green is the primary metabolite of malachite green and is retained in fish muscle much longer, most intake of malachite green would be in the leuco form. During the experiment, rats were fed up to 543 ppm of leuco-malachite green, an extreme amount compared to the average 5 ppb discovered in fish. After a period of two years, an increase in lung adenomas in male rats was discovered but no incidences of liver tumors. This shows that although adducts are formed, they have "little mutagenic or carcinogenic consequence" Therefore it could be concluded that malachite green caused carcinogenic symptoms but a direct link between malachite green and liver tumor could not be proved.
Acute Toxicity | Not Applicable | Carcinogenicity | Not Applicable
--- | --- | --- | ---
Skin Irritation/Corrosion | Not Applicable | Reproductivity | Not Applicable
Serious Eye Damage/Irritation | Not Applicable | STOT - Single Exposure | Not Applicable
Respiratory or Skin sensitisation | Not Applicable | STOT - Repeated Exposure | Not Applicable
Mutagenicity | Not Applicable | Aspiration Hazard | Not Applicable

CMR STATUS

SECTION 12 ECOLOGICAL INFORMATION

Toxicity
| NOT AVAILABLE |
--- | --- | --- | --- | --- | --- |
Ingredient | Endpoint | Test Duration | Effect | Value | Species | BCF |
--- | --- | --- | --- | --- | --- | --- |
Liquid Super Ick Cure | Not Available | Not Available | Not Available | Not Available | Not Available | Not Available |

Persistence and degradability
| Ingredient | Persistence: Water/Soil | Persistence: Air |
--- | --- | --- |
Not Available | Not Available | Not Available |

Bioaccumulative potential
| Ingredient | Bioaccumulation |
--- | --- |
Not Available | Not Available |

Mobility in soil
| Ingredient | Mobility |
--- | --- |
Not Available | Not Available |

SECTION 13 DISPOSAL CONSIDERATIONS

Waste treatment methods
- Recycle wherever possible.
- Consult manufacturer for recycling options or consult local or regional waste management authority for disposal if no suitable treatment or disposal facility can be identified.
- Dispose of by: burial in a land-fill specifically licenced to accept chemical and / or pharmaceutical wastes or incineration in a licenced apparatus (after admixture with suitable combustible material).
- Decontaminate empty containers. Observe all label safeguards until containers are cleaned and destroyed.

SECTION 14 TRANSPORT INFORMATION

Labels Required
- Marine Pollutant: NO

Land transport (DOT): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Air transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

SECTION 15 REGULATORY INFORMATION

Safety, health and environmental regulations / legislation specific for the substance or mixture

C.I. Basic Green 4 (oxalate)(2437-29-8) is found on the following regulatory lists
- "International Maritime Dangerous Goods Requirements (IMDG Code)"
- "International Maritime Dangerous Goods Requirements (IMDG Code) - Substance Index"
- "US Postal Service (USPS) Hazardous Materials Table: Postal Service Mailability Guide"
- "US Postal Service (USPS) Numerical Listing of Proper Shipping Names by Identification (ID) Number"
- "United Nations Recommendations on the Transport of Dangerous Goods Model Regulations (English)"
- "FisherTransport Information"
- "United Nations Recommendations on the Transport of Dangerous Goods Model Regulations (Spanish)"
- "Sigma-AldrichTransport Information"
- "International Air Transport Association (IATA) Dangerous Goods Regulations"
- "Regulations concerning the International Carriage of Dangerous Goods by Rail - Table A: Dangerous Goods List - RID 2013 (English)"

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/references

The (M)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.

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