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

Product Identifier

<table>
<thead>
<tr>
<th>Product name</th>
<th>DUBL-CHEK Underwater No. 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemical Name</td>
<td>Not Applicable</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>Used for a variety of underwater inspections, including offshore structural welds, pipeline inspection and ship husbandry.</th>
</tr>
</thead>
</table>

Details of the manufacturer/importer

<table>
<thead>
<tr>
<th>Registered company name</th>
<th>Callington Haven</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address</td>
<td>30 South Street Rydalmere 2116 NSW Australia</td>
</tr>
<tr>
<td>Telephone</td>
<td>+61 2 9898 2788</td>
</tr>
<tr>
<td>Fax</td>
<td>+61 2 9684 4215</td>
</tr>
<tr>
<td>Website</td>
<td><a href="http://www.callingtonhaven.com">www.callingtonhaven.com</a></td>
</tr>
<tr>
<td>Email</td>
<td><a href="mailto:sales@calhaven.com.au">sales@calhaven.com.au</a></td>
</tr>
</tbody>
</table>

Emergency telephone number

<table>
<thead>
<tr>
<th>Emergency telephone number</th>
<th>1800 039 008 (24 hours),+61 3 9573 3112 (24 hours)</th>
</tr>
</thead>
</table>

SECTION 2 HAZARDS IDENTIFICATION

Classification of the substance or mixture

NON-HAZARDOUS SUBSTANCE. NON-DANGEROUS GOODS. According to NOHSC Criteria, and ADG Code.

<table>
<thead>
<tr>
<th>CHEMWATCH HAZARD RATINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammability</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>Toxicity</td>
</tr>
<tr>
<td>Body Contact</td>
</tr>
<tr>
<td>Reactivity</td>
</tr>
<tr>
<td>Chronic</td>
</tr>
</tbody>
</table>

Label elements

Not Applicable

Relevant risk statements are found in section 2

<table>
<thead>
<tr>
<th>Poisons Schedule</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risk Phrases</td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>


Indication(s) of danger

Not Applicable

SAFETY ADVICE

Not Applicable

Continued...
Other hazards

May produce discomfort of the eyes, respiratory tract and skin*. Cumulative effects may result following exposure*. Inhalation may produce health damage*.

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>7439-89-6</td>
<td>30-55</td>
<td>iron, powder</td>
</tr>
<tr>
<td>Not Available</td>
<td>&gt;50</td>
<td>water conditioner, surfactant, rust preventative</td>
</tr>
</tbody>
</table>

SECTION 4 FIRST AID MEASURES

Description of first aid measures

Eye Contact
If this product comes in contact with the eyes:
- Wash out immediately with fresh running water.
- Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.
- Seek medical attention without delay; if pain persists or recurs 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 or combustion products are inhaled remove from contaminated area.
- Lay patient down. Keep warm and rested.
- Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.
- Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained.
- Perform CPR if necessary.
- Transport to hospital, or doctor.

Ingestion
Immediately give a glass of water.
- First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

SECTION 5 FIREFIGHTING MEASURES

Extinguishing media

- Water spray or fog.
- Foam.
- Dry chemical powder.
- BCF (where regulations permit).
- Carbon dioxide.

Special hazards arising from the substrate or mixture

Fire Incompatibility
None known

Advice for firefighters

Fire Fighting
- Alert Fire Brigade and tell them location and nature of hazard.
- Wear breathing apparatus plus protective gloves.
- Prevent, by any means available, spillage from entering drains or water courses.
- Use water delivered as a fine 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
CombustibleDecomposition may produce toxic fumes of, carbon monoxide (CO), carbon dioxide (CO2), metal oxidesAvoid creating dust - may present dust explosion hazard. Dry dust can be electrostatically charged by turbulence, pneumatic transport, pouring, in exhaust ducts and during transport. Build-up of electrostatic charge may be prevented by grounding.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Minor Spills
- Remove all ignition sources.
Clean up all spills immediately.
Avoid contact with skin and eyes.
Control personal contact with the substance, by using protective equipment.
Use dry clean up procedures and avoid generating dust.
Place in a suitable, labelled container for waste disposal.

**Major Spills**

Remove all ignition sources.
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 and dust respirator.
Prevent spillage from entering drains, sewers or water courses.
Recover product wherever possible. Avoid generating dust.
Sweep / shovel up.
If required, wet with water to prevent dusting.
Put residues in labelled plastic bags or other containers for disposal.
Wash area down with large quantity of water and prevent runoff into drains.
If contamination of drains or waterways occurs, advise emergency services.

**SECTION 7 HANDLING AND STORAGE**

**Precautions for safe handling**

- Remove all ignition sources.
- Limit all unnecessary personal contact.
- Wear protective clothing when risk of exposure occurs.
- Use in a well-ventilated area.
- When handling DO NOT eat, drink or smoke.
- Always wash hands with soap and water after handling.
- Avoid physical damage to containers.
- Use good occupational work practice.
- Observe manufacturer's storage and handling recommendations contained within this MSDS.

**Other information**

- Keep dry.
- Store under cover.
- Protect containers against physical damage.
- Observe manufacturer's storage and handling recommendations contained within this MSDS.

**Conditions for safe storage, including any incompatibilities**

**Suitable container**

- Plastic container

**Storage incompatibility**

- Reacts with acids producing flammable / explosive hydrogen (H2) gas
- Avoid storage with oxidisers

**SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION**

**Control parameters**

**OCCUPATIONAL EXPOSURE LIMITS (OEL)**

**INGREDIENT DATA**

<table>
<thead>
<tr>
<th>Source</th>
<th>Ingredient</th>
<th>Material name</th>
<th>TWA</th>
<th>STEL</th>
<th>Peak</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia Exposure Standards</td>
<td>iron, powder</td>
<td>Fume (thermally generated) (respirable dust)</td>
<td>2 mg/m³</td>
<td>Not Available</td>
<td>Not Available</td>
<td>(see Silica - Amorphous); Containing no asbestos and &lt; 1% crystalline silica (see Chapter 14).</td>
</tr>
</tbody>
</table>

**EMERGENCY LIMITS**

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>TEEL-0</th>
<th>TEEL-1</th>
<th>TEEL-2</th>
<th>TEEL-3</th>
</tr>
</thead>
<tbody>
<tr>
<td>iron, powder</td>
<td>1.5 ppm</td>
<td>4 ppm</td>
<td>30 ppm</td>
<td>500 ppm</td>
</tr>
</tbody>
</table>

**Ingredient**

<table>
<thead>
<tr>
<th>Original IDLH</th>
<th>Revised IDLH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Available</td>
<td>Not Available</td>
</tr>
</tbody>
</table>

**Exposure controls**

Appropriate engineering controls

General exhaust is adequate under normal operating conditions.
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 lenses 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

Hands/feet protection
- Wear chemical protective gloves, e.g. PVC.
- Wear safety footwear or safety gumboots, e.g. Rubber

Body protection
See Other protection below

Other protection
No special equipment needed when handling small quantities.

OTHERWISE:
- Overalls.
- Barrier cream.
- Eyewash unit.

Thermal hazards
Not Available

Recommended material(s)

<table>
<thead>
<tr>
<th>GLOVE SELECTION INDEX</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glove selection is based on a modified presentation of the: &quot;Forsberg Clothing Performance Index&quot;. The effect(s) of the following substance(s) are taken into account in the computer-generated selection:</td>
</tr>
</tbody>
</table>

DUBL-CHEK Underwater No. 1 Not Available

<table>
<thead>
<tr>
<th>Material</th>
<th>CPI</th>
</tr>
</thead>
</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.

Respiratory protection

Particulate. (AS/NZS 1716 & 1715, EN 143:000 & 149:001, ANSI Z88 or national equivalent)

<table>
<thead>
<tr>
<th>Required Minimum Protection Factor</th>
<th>Half-Face Respirator</th>
<th>Full-Face Respirator</th>
<th>Powered Air Respirator</th>
</tr>
</thead>
<tbody>
<tr>
<td>up to 10 x ES</td>
<td>P1</td>
<td>-</td>
<td>PAPR-P1</td>
</tr>
<tr>
<td>up to 50 x ES</td>
<td>Air-line*</td>
<td>P2</td>
<td>PAPR-P2</td>
</tr>
<tr>
<td>up to 100 x ES</td>
<td>-</td>
<td>P3</td>
<td>-</td>
</tr>
<tr>
<td>100+ x ES</td>
<td>-</td>
<td>Air-line*</td>
<td>-</td>
</tr>
</tbody>
</table>

* - Negative pressure demand    ** - Continuous flow
A(All classes) = Organic vapours, B AUS or B1 = Acid gasses, B2 = Acid gas or hydrogen cyanide(HCN), B3 = Acid gas or hydrogen cyanide(HCN), E = Sulfur dioxide(SO2), G = Agricultural chemicals, K = Ammonia(NH3), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds(below 65 degC)

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Appearance</th>
<th>Red powder with slight detergent odour; partly soluble in water.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Divided Solid</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>Not Applicable</td>
</tr>
<tr>
<td>Melting point / freezing point (°C)</td>
<td>Not Available</td>
</tr>
<tr>
<td>Initial boiling point and boiling range (°C)</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Flash point (°C)</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Flammability</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Upper Explosive Limit (%)</td>
<td>Not Available</td>
</tr>
<tr>
<td>Lower Explosive Limit (%)</td>
<td>Not Available</td>
</tr>
<tr>
<td>Vapour pressure (kPa)</td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>

Chemical properties

- Relative density (Water = 1): 0.9
- Partition coefficient n-octanol / water: Not Available
- Auto-ignition temperature (°C): Not Available
- Decomposition temperature: Not available.
- Viscosity (cSt): Not Applicable
- Molecular weight (g/mol): Not Applicable
- Taste: Not Available
- Explosive properties: Not Available
- Oxidising properties: Not Available
- Surface Tension (dyn/cm or mN/m): Not Applicable
- Volatile Component (%vol): Not Applicable
- Gas group: Not Available
SECTION 10 STABILITY AND REACTIVITY

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reactivity</td>
<td>See section 7</td>
</tr>
<tr>
<td>Chemical stability</td>
<td>• Unstable in the presence of incompatible materials.</td>
</tr>
<tr>
<td></td>
<td>• Product is considered stable.</td>
</tr>
<tr>
<td></td>
<td>• Hazardous polymerisation will not occur.</td>
</tr>
<tr>
<td>Possibility of hazardous reactions</td>
<td>See section 7</td>
</tr>
<tr>
<td>Conditions to avoid</td>
<td>See section 7</td>
</tr>
<tr>
<td>Incompatible materials</td>
<td>See section 7</td>
</tr>
<tr>
<td>Hazardous decomposition products</td>
<td>See section 5</td>
</tr>
</tbody>
</table>

SECTION 11 TOXICOLOGICAL INFORMATION

Information on toxicological effects

<table>
<thead>
<tr>
<th>Inhaled</th>
<th>Generated dust may be discomforting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ingestion</td>
<td>The material has <strong>NOT</strong> been classified by EC Directives or other classification systems as &quot;harmful by ingestion&quot;. 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.</td>
</tr>
<tr>
<td>Skin Contact</td>
<td>Limited evidence exists, or practical experience predicts, that the material either produces inflammation of the skin in a substantial number of individuals following direct contact, and/or produces significant inflammation when applied to the healthy intact skin of animals, for up to four hours, such inflammation being present twenty-four hours or more after the end of the exposure period. Skin irritation may also be present after prolonged or repeated exposure; this may result in a form of contact dermatitis (nonallergic). The dermatitis is often characterised by skin redness (erythema) and swelling (oedema) which may progress to blisters (vesication), scaling and thickening of the epidermis. At the microscopic level there may be intercellular oedema of the spongy layer of the skin (spongiosis) and intracellular oedema of the epidermis.</td>
</tr>
<tr>
<td>Eye</td>
<td>Limited evidence exists, or practical experience suggests, that the material may cause eye irritation in a substantial number of individuals and/or is expected to produce significant ocular lesions which are present twenty-four hours or more after instillation into the eye(s) of experimental animals. Repeated or prolonged eye contact may cause inflammation characterised by temporary redness (similar to windburn) of the conjunctiva (conjunctivitis); temporary impairment of vision and/or other transient eye damage/ulceration may occur.</td>
</tr>
<tr>
<td>Chronic</td>
<td>Long term exposure to high dust concentrations may cause changes in lung function (i.e. pneumoconiosis) caused by particles less than 0.5 micron penetrating and remaining in the lung. A prime symptom is breathlessness. Lung shadows show on X-ray.</td>
</tr>
</tbody>
</table>

DUBL-CHEK Underwater No. 1

<table>
<thead>
<tr>
<th>Property</th>
<th>Toxicity</th>
<th>Irritation</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOXICITY</td>
<td>Not Available</td>
<td>Not Available</td>
</tr>
</tbody>
</table>

Iron, powder

<table>
<thead>
<tr>
<th>Property</th>
<th>Toxicity</th>
<th>Irritation</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOXICITY</td>
<td>Oral (rat) LD50: 98600 mg/kg</td>
<td>Nil reported [Patty]</td>
</tr>
<tr>
<td></td>
<td>Not Available</td>
<td>Not Available</td>
</tr>
</tbody>
</table>

Not available. Refer to individual constituents.

CMR STATUS

Not Applicable

SECTION 12 ECOLOGICAL INFORMATION

Toxicity

**DO NOT** discharge into sewer or waterways.

Persistence and degradability

Continued...
SECTION 13 DISPOSAL CONSIDERATIONS

Waste treatment methods

- Recycle wherever possible or consult manufacturer for recycling options.
- Consult State Land Waste Management Authority for disposal.
- Bury residue in an authorised landfill.
- Recycle containers if possible, or dispose of in an authorised landfill.

SECTION 14 TRANSPORT INFORMATION

Labels Required

Marine Pollutant: NO
HAZCHEM: Not Applicable

Land transport (ADG): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS
Air transport (ICAO-ICAO / 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

iron, powder(7439-89-6) is found on the following regulatory lists:

- "International Maritime Dangerous Goods Requirements (IMDG Code) - Substance Index",
- "Australia - Australian Capital Territory - Environment Protection Regulation: Ambient environmental standards (STOCK - inorganic chemicals)",
- "Australia - Australian Capital Territory - Environment Protection Regulation: Ambient environmental standards (Domestic water supply - inorganic chemicals)",
- "Australia - Australian Capital Territory - Environment Protection Regulation: Ambient environmental standards (IRRIG - inorganic chemicals)",
- "Australia National Pollutant Inventory",
- "Australia National Pollutant Inventory - "WHO Guidelines for Drinking-water Quality - Chemicals for which guideline values have not been established"",
- "Australia - Australian Capital Territory - Environment Protection Regulation: Ambient environmental standards (IRRIG - inorganic chemicals)",
- "Australia National Environment Protection (Ambient Air Quality) Measure - Schedule 1: Pollutants",
- "Australia - Australian Capital Territory - Environment Protection Regulation: Environmental Protection Regulation: Pollutants entering waterways taken to cause environmental harm (STOCK)",
- "FisherTransport Information",
- "OECD List of High Production Volume (HPV) Chemicals",
- "Wassenaar Arrangement - Munitions List - "Energetic materials", and related substances",
- "Australia Drinking Water Guideline Values For Physical and Chemical Characteristics",
- "International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs",
- "Australia Inventory of Chemical Substances (AICS)",
- "Australia National Environment Protection (Ambient Air Quality) Measure - Schedule 1: Pollutants",
- "Australia - Australian Capital Territory - Environment Protection Regulation: Pollutants entering waterways taken to cause environmental harm (Aquratic habitat)",
- "Australia National Environment Protection (Ambient Air Quality) Measure - Schedule 2 Table 1: Standards and Goal for Pollutants other than Particles as PM2.5",
- "UNECE - Kiev Protocol on Pollutant Release and Transfer Registers - Annex II!",
- "Australia - Australian Capital Territory - Environment Protection Regulation: Ambient environmental standards (IRRIG - inorganic chemicals)"

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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