Seedworx EasyOn
Centor Oceania
Chemwatch: 53-5433
Version No: 2.1.1.1
Safety Data Sheet according to WHS and ADG requirements

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

Product Identifier

<table>
<thead>
<tr>
<th>Product name</th>
<th>Seedworx EasyOn</th>
</tr>
</thead>
<tbody>
<tr>
<td>Synonyms</td>
<td>Not Available</td>
</tr>
<tr>
<td>Other means of identification</td>
<td>Not Available</td>
</tr>
</tbody>
</table>

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

Relevant identified uses
Use according to manufacturer's directions. Seed Peletting.

Details of the supplier of the safety data sheet

<table>
<thead>
<tr>
<th>Registered company name</th>
<th>Center Oceania</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address</td>
<td>76 Coleman's Road Carrum Downs 3201 VIC Australia</td>
</tr>
<tr>
<td>Telephone</td>
<td>+61 3 8779 2172</td>
</tr>
<tr>
<td>Fax</td>
<td>Not Available</td>
</tr>
<tr>
<td>Website</td>
<td><a href="http://www.centorgroup.com/centor-oceania">http://www.centorgroup.com/centor-oceania</a></td>
</tr>
<tr>
<td>Email</td>
<td><a href="mailto:info@centoroceania.com">info@centoroceania.com</a></td>
</tr>
</tbody>
</table>

Emergency telephone number

| Association / Organisation | Not Available |
| Emergency telephone numbers | +61 3 8779 2105 (9 am to 5 pm AEST) |
| Other emergency telephone numbers | Not Available |

SECTION 2 HAZARDS IDENTIFICATION

Classification of the substance or mixture

| NON-HAZARDOUS CHEMICAL. NON-DANGEROUS GOODS. According to the Model WHS Regulations and the ADG Code. |

<table>
<thead>
<tr>
<th>Poisons Schedule</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>GHS Classification</td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>

Label elements

| GHS label elements | Not Applicable |

SIGNAL WORD

| NOT APPLICABLE |

Hazard statement(s)

Not Applicable

Precautionary statement(s) Prevention

Precautionary statement(s) Response

Precautionary statement(s) Storage

Precautionary statement(s) Disposal

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Substances

See section below for composition of Mixtures

Mixtures
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.

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

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 in the event of a fire.
- Prevent, by any means available, spillage from entering drains or water courses.
- Use fire fighting procedures suitable for surrounding 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.
- silicon dioxide (SiO2)/May emit poisonous fumes. May emit corrosive fumes.

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
- Moderate hazard.
  - CAUTION: Advise personnel in area.
  - Alert Emergency Services and tell them location and nature of hazard.
  - Control personal contact by wearing protective clothing.
  - Prevent, by any means available, spillage from entering drains or water courses.
  - Recover product wherever possible.
  - IF DRY: Use dry clean up procedures and avoid generating dust. Collect residues and place in sealed plastic bags or other containers for disposal. IF WET: Vacuum/shovel up and place in labelled containers for disposal.
  - ALWAYS: Wash area down with large amounts of water and prevent runoff into drains.
  - If contamination of drains or waterways occurs, advise Emergency Services.

Personal Protective Equipment advice is contained in Section 8 of the SDS.
SECTION 7 HANDLING AND STORAGE

Precautions for safe handling

- Avoid all personal contact, including inhalation.
- Wear protective clothing when risk of exposure occurs.
- Use in a well-ventilated area.
- Prevent concentration in hollows and sumps.
- DO NOT enter confined spaces until atmosphere has been checked.
- DO NOT allow material to contact humans, exposed food or food utensils.
- 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. Launder contaminated clothing before re-use.
- 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
  - Packaging as recommended by manufacturer.
  - Check that containers are clearly labelled
  - IBC container/pail.
- Storage incompatibility
  - None known

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

OCCUPATIONAL EXPOSURE LIMITS (OEL)

<table>
<thead>
<tr>
<th>INGREDIENT DATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source</td>
</tr>
<tr>
<td>Australia Exposure Standards</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EMERGENCY LIMITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ingredient</td>
</tr>
<tr>
<td>silica amorphous, diatomaceous earth</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Original IDLH</th>
<th>Revised IDLH</th>
</tr>
</thead>
<tbody>
<tr>
<td>silica amorphous, diatomaceous earth</td>
<td>Not Available</td>
<td>Not Available</td>
</tr>
<tr>
<td>Ingredients determined not to be hazardous</td>
<td>Not Available</td>
<td>Not Available</td>
</tr>
</tbody>
</table>

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.

Local exhaust ventilation usually required. If risk of overexposure exists, wear approved respirator. Correct fit is essential to obtain adequate protection.

Supplied-air type respirator may be required in special circumstances. Correct fit is essential to ensure adequate protection.

Air approved self contained breathing apparatus (SCBA) may be required in some situations.

Provide adequate ventilation in warehouse or closed storage area. 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.

<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 transfers, welding, spray drift, plating acid fumes, pickling (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, conveyer 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).  

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

- 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 adhesion 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]

### Eye and face protection

- Chemical goggles.
- 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 adhesion 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

The selection of suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer. Where the chemical is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application. The exact break through time for substances has to be obtained from the manufacturer of the protective gloves and has to be observed when making a final choice.

Suitability and durability of glove type is dependent on usage. Important factors in the selection of gloves include:

- Frequency and duration of contact.
- Chemical resistance of glove material.
- Glove thickness and dexterity.

Select gloves tested to a relevant standard (e.g. Europe EN 374, US F739, AS/NZS 2161.1 or national equivalent).

- When prolonged or frequently repeated contact may occur, a glove with a protection class of 5 or higher (breakthrough time greater than 240 minutes according to EN 374, AS/NZS 2161.10.1 or national equivalent) is recommended.
- When only brief contact is expected, a glove with a protection class of 3 or higher (breakthrough time greater than 60 minutes according to EN 374, AS/NZS 2161.10.1 or national equivalent) is recommended.
- Some glove polymer types are less affected by movement and this should be taken into account when considering gloves for long term use.
- Contaminated gloves should be replaced.

Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturiser is recommended.

Experience indicates that the following polymers are suitable as glove materials for protection against undissolved, dry solids, where abrasive particles are not present.

- polyvinylchloride.
- nitrilo rubber.
- butyl rubber.
- fluorocaoutchouc.
- polychloroprene.
- polyvinyl chloride.

Gloves should be examined for wear and/ or degradation constantly.

### Hands/feet protection

The effect(s) of the following substance(s) are taken into account in the "Forsberg Clothing Performance Index". The effect(s) of the following substance(s) are taken into account in the computer-generated selection: Seedworx EasyOn Not Available

### Body protection

- Overalls.
- P.V.C. apron.
- Barrier cream.
- Skin cleansing cream.
- Eye wash unit.

### Other 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 adhesion 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]

### Thermal hazards

Not Available

### 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 Air-line*</td>
<td>-</td>
<td>PAPR-P1</td>
</tr>
<tr>
<td>up to 50 x ES</td>
<td>Air-line** P2</td>
<td>-</td>
<td>PAPR-P2</td>
</tr>
<tr>
<td>up to 100 x ES</td>
<td>- P3 Air-line*</td>
<td>-</td>
<td>PAPR-P3</td>
</tr>
<tr>
<td>100+ x ES</td>
<td>- Air-line**</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

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: Seedworx EasyOn Not Available

<table>
<thead>
<tr>
<th>Material</th>
<th>CPI</th>
</tr>
</thead>
<tbody>
<tr>
<td>polyvinylchloride</td>
<td></td>
</tr>
<tr>
<td>nitrilo rubber</td>
<td></td>
</tr>
<tr>
<td>butyl rubber</td>
<td></td>
</tr>
<tr>
<td>fluorocaoutchouc</td>
<td></td>
</tr>
<tr>
<td>polychloroprene</td>
<td></td>
</tr>
<tr>
<td>polyvinyl chloride</td>
<td></td>
</tr>
</tbody>
</table>

NOTE: A series of factors will influence the actual performance of the glove, a final

Continued...
**SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**

Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>White powder; miscible with water.</td>
</tr>
<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 Available</td>
</tr>
<tr>
<td>Melting point / freezing point</td>
<td>Not Available</td>
</tr>
<tr>
<td>Initial boiling point</td>
<td>Not Available</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not Available</td>
</tr>
<tr>
<td>Flammability</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Upper Explosive Limit</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Lower Explosive Limit</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Vapour pressure (kPa)</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Solubility in water (g/L)</td>
<td>Miscible</td>
</tr>
<tr>
<td>Vapour density (Air = 1)</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Relative density (Water = 1)</td>
<td>Not Available</td>
</tr>
<tr>
<td>Partition coefficient</td>
<td>Not Available</td>
</tr>
<tr>
<td>n-octanol / water</td>
<td>Not Available</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>Not Available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not Available</td>
</tr>
<tr>
<td>Molecular weight (g/mol)</td>
<td>Not Available</td>
</tr>
<tr>
<td>Surface Tension (dyn/cm or mN/m)</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Volatile Component (%vol)</td>
<td>Not Available</td>
</tr>
<tr>
<td>Gas group</td>
<td>Not Available</td>
</tr>
<tr>
<td>pH as a solution (1%)</td>
<td>Not Available</td>
</tr>
<tr>
<td>VOC g/L</td>
<td>Not Available</td>
</tr>
</tbody>
</table>

**SECTION 10 STABILITY AND REACTIVITY**

<table>
<thead>
<tr>
<th>Reactivity</th>
<th>See section 7</th>
</tr>
</thead>
</table>
| Chemical stability | - Unstable in the presence of incompatible materials.  
| 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

<table>
<thead>
<tr>
<th>Route</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhaled</td>
<td>Inhalation of dusts, generated by the material during the course of normal handling, may be damaging to the health of the individual. There is some evidence to suggest that the material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage. Persons with impaired respiratory function, airway diseases and conditions such as emphysema or chronic bronchitis, may incur further disability if excessive concentrations of particulate are inhaled. If prior damage to the circulatory or nervous systems has occurred or if kidney damage has been sustained, proper screenings should be conducted on individuals who may be exposed to further risk if handling and use of the material result in excessive exposures. Effects on lungs are significantly enhanced in the presence of respirable particles.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>The material has NOT 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. Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable gloves be used in an occupational setting. Open cuts, abraded or irritated skin should not be exposed to this material. The material is not thought to produce adverse health effects or skin irritation following contact (as classified by EC Directives using animal models). Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.</td>
</tr>
<tr>
<td>Skin Contact</td>
<td>Although the material is not thought to be an irritant (as classified by EC Directives), direct contact with the eye may cause transient discomfort characterised by tearing or conjunctival redness (as with windburn). Slight abrasive damage may also result.</td>
</tr>
<tr>
<td>Eye</td>
<td>Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure. Overexposure to respirable dust may cause coughing, wheezing, difficulty in breathing and impaired lung function. Chronic symptoms may include decreased vital lung capacity, chest infections. Repeated exposures, in an occupational setting, to high levels of fine- divided dusts may produce a condition known as pneumoconiosis which is the lodgement of fine dust in the lungs.</td>
</tr>
<tr>
<td>Chronic</td>
<td>The material has NOT 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. Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable gloves be used in an occupational setting. Open cuts, abraded or irritated skin should not be exposed to this material. The material is not thought to produce adverse health effects or skin irritation following contact (as classified by EC Directives using animal models). Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.</td>
</tr>
</tbody>
</table>
of any inhaled dusts in the lung irrespective of the effect. This is particularly true when a significant number of particles less than 0.5 microns (1/50,000 inch),
are present. Lung shadows are seen in the X-ray. Symptoms of pneumoconiosis may include a progressive dry cough, shortness of breath on exertion
(exertional dyspnea), increased chest expansion, weakness and weight loss. As the disease progresses the cough produces a stringy mucous, vital capacity
decreases further and shortness of breath becomes more severe. Other signs or symptoms include a decreased forced expiratory volume, diminished
oxygen uptake during exercise, emphysema and pneumothorax (air in lung cavity) as a rare complication. Removing workers from possibility of further exposure to dust generally leads to halting the progress of the lung abnormalities. Where worker-exposure potential is high, periodic examinations with emphasis on lung dysfunctions should be undertaken.

Dust inhalation over an extended number of years may produce pneumoconiosis. Pneumoconiosis is the accumulation of dusts in the lungs and the tissue
reaction in its presence. It is further classified as being of noncollagenous or collagenous types. Noncollagenous pneumoconiosis, the benign form, is
identified by minimal stromal reaction, consists mainly of reticulin fibres, an intact alveolar architecture and is potentially reversible.

For silica amorphous:
When experimental animals inhale synthetic amorphous silica (SAS) dust, it dissolves in the lung fluid and is rapidly eliminated. If swallowed, the vast
majority of SAS is excreted in the faeces and there is little accumulation in the body. Following absorption across the gut, SAS is eliminated via urine
without modification in animals and humans. SAS is not expected to be broken down (metabolised) in mammals. After ingestion, there is limited accumulation of SAS in body tissues and rapid elimination occurs. Intestinal absorption has not been calculated, but appears to be insignificant in animals and humans. SASs injected subcutaneously are subjected to rapid dissolution and removal. There is no indication of
metabolism of SAS in animals or humans based on chemical structure and available data. In contrast to crystalline silica, SAS is soluble in physiological
media and the soluble chemical species that are formed are eliminated via the urinary tract without modification.

Both the mammalian and environmental toxicology of SASs are significantly influenced by the physical and chemical properties, particularly those of
solubility and particle size. SAS has no acute intrinsic toxicity by inhalation. Adverse effects, including suffocation, that have been reported were caused by
the presence of high numbers of respirable particles generated to meet the required test atmosphere. These results are not representative of exposure to
commercial SASs and should not be used for human risk assessment. Though repeated exposure of the skin may cause dryness and cracking, SAS is not
a skin or eye irritant, and it is not a sensitizer.

Repeated-dose and chronic toxicity studies confirm the absence of toxicity when SAS is swallowed or upon skin contact. Long-term inhalation of SAS caused some adverse effects in animals (increases in lung inflammation, cell injury and lung collagen content), all of which
subsided after exposure. Numerous repeated-dose, subchronic and chronic inhalation toxicity studies have been conducted with SAS in a number of species, at airborne
concentrations ranging from 0.5 mg/m3 to 150 mg/m3. Lowest-observed adverse effect levels (LOAELs) were typically in the range of 1 to 50 mg/m3.
When available, the no-observed adverse effect levels (NOAELs) were between 0.5 and 10 mg/m3. The difference in values may be explained by different
particle size, and therefore the number of particles administered per unit dose. In general, as particle size decreases so does the NOAEL/LOAEL.
Neither inhalation nor oral administration caused neoplasms (tumours). SAS is not mutagenic in vitro. No genotoxicity was detected in in vivo assays. SAS
does not impair development of the foetus. Fertility was not specifically studied, but the reproductive organs in long-term studies were not affected.

In humans, SAS is essentially non-toxic by mouth, skin or eyes, and by inhalation. Epidemiology studies show little evidence of adverse health effects due to
SAS. Repeated exposure (without personal protection) may cause mechanical irritation of the eye and drying/irritation of the skin. There is no evidence of cancer or other long-term respiratory health effects (for example, silicosis) in workers employed in the manufacture of SAS. Respiratory symptoms in SAS workers have been shown to correlate with smoking but not with SAS exposure, while serial pulmonary function values and
chest radiographs are not adversely affected by long-term exposure to SAS. No significant acute toxicological data identified in literature search.

### Toxics

#### Acute Toxicity

- **Dust inhalation**
- **Skin Contact**
- **Ingestion**

#### Skin Irritation/Corrosion

- **SILICA AMORPHOUS, DIATOMACEOUS EARTH**

#### Carcinogenicity

- **SILICA AMORPHOUS, DIATOMACEOUS EARTH**

#### Reproductivity

- **SILICA AMORPHOUS, DIATOMACEOUS EARTH**

#### Serious Eye Damage/Irritation

- **SILICA AMORPHOUS, DIATOMACEOUS EARTH**

#### STOT - Single Exposure

- **SILICA AMORPHOUS, DIATOMACEOUS EARTH**

#### STOT - Repeated Exposure

- **SILICA AMORPHOUS, DIATOMACEOUS EARTH**

#### Respiratory or Skin sensitisation

- **SILICA AMORPHOUS, DIATOMACEOUS EARTH**

#### Mutagenicity

- **SILICA AMORPHOUS, DIATOMACEOUS EARTH**

#### Aspiration Hazard

- **SILICA AMORPHOUS, DIATOMACEOUS EARTH**

**Legend:**
- ✔️ - Data required to make classification available
- ✗ - Data available but does not fill the criteria for classification
- ✗ - Data Not Available to make classification

### SECTION 12 ECOLOGICAL INFORMATION

#### Toxicity

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

#### Persistence and degradability

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Persistence: Water/Soil</th>
<th>Persistence: Air</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Data available for all ingredients</td>
<td>No Data available for all ingredients</td>
<td></td>
</tr>
</tbody>
</table>

#### Bioaccumulative potential

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Bioaccumulation</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Data available for all ingredients</td>
<td></td>
</tr>
</tbody>
</table>

#### Mobility in soil

- No Data available for all ingredients

---

Continued...
### SECTION 13 DISPOSAL CONSIDERATIONS

**Waste treatment methods**

- DO NOT allow wash water from cleaning or process equipment to enter drains.
- It may be necessary to collect all wash water for treatment before disposal.
- In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first.
- Where in doubt contact the responsible authority.
- 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-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

**SILICA AMORPHOUS, DIATOMACEOUS EARTH(61790-53-2) IS FOUND ON THE FOLLOWING REGULATORY LISTS**

<table>
<thead>
<tr>
<th>National Inventory</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia - AICS</td>
<td>N (silica amorphous, diatomaceous earth)</td>
</tr>
<tr>
<td>Canada - DSL</td>
<td>N (silica amorphous, diatomaceous earth)</td>
</tr>
<tr>
<td>Canada - NDSL</td>
<td>Y</td>
</tr>
<tr>
<td>China - IEGSC</td>
<td>Y</td>
</tr>
<tr>
<td>Europe - EINEC / ELINCS / NLP</td>
<td>N (silica amorphous, diatomaceous earth)</td>
</tr>
<tr>
<td>Japan - ENCS</td>
<td>N (silica amorphous, diatomaceous earth)</td>
</tr>
<tr>
<td>Korea - KEIC</td>
<td>Y</td>
</tr>
<tr>
<td>New Zealand - NZIoC</td>
<td>Y</td>
</tr>
<tr>
<td>Philippines - PICCS</td>
<td>Y</td>
</tr>
<tr>
<td>USA - TSCA</td>
<td>Y</td>
</tr>
</tbody>
</table>

**Legend:**

- Y = All ingredients are on the inventory
- N = Not determined or one or more ingredients are not on the inventory and are not exempt from listing (see specific ingredients in brackets)

### SECTION 16 OTHER INFORMATION

#### Other information

**Ingredients with multiple cas numbers**

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS No</th>
</tr>
</thead>
</table>

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](http://www.chemwatch.net)

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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