

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name:

CHITOSAN FLAKES

Recommended Use of the Chemical General chemical. and **Restrictions on Use**

Supplier: ABN: Street Address:	Ixom Operations Pty Ltd 51 600 546 512 Level 8, 1 Nicholson Street East Melbourne Victoria 3002 Australia
Telephone Number:	+61 3 9906 3000
Emergency Telephone:	1 800 033 111 (ALL HOURS)

Please ensure you refer to the limitations of this Safety Data Sheet as set out in the "Other Information" section at the end of this Data Sheet.

2. HAZARDS IDENTIFICATION

Not classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by Road and Rail; NON-DANGEROUS GOODS.

Based on available information, not classified as hazardous according to Safe Work Australia; NON-HAZARDOUS CHEMICAL.

Classification of the chemical:

The following health/environmental hazard categories fall outside the scope of the Workplace Health and Safety Regulations: Acute Aquatic Toxicity - Category 2

Poisons Schedule (SUSMP): None allocated.

3. COMPOSITION AND INFORMATION ON INGREDIENTS

Components	CAS Number	Proportion	Hazard Codes
Chitosan	9012-76-4	>80%	-

4. FIRST AID MEASURES

For advice, contact a Poisons Information Centre (e.g. phone Australia 131 126; New Zealand 0800 764 766) or a doctor.

Inhalation:

Remove victim from area of exposure - avoid becoming a casualty. Seek medical advice if effects persist.

Skin Contact:

If skin or hair contact occurs, remove contaminated clothing and wash skin and hair with soap and water. If irritation occurs seek medical advice.



If in eyes, wash out immediately with water. In all cases of eye contamination it is a sensible precaution to seek medical advice.

Ingestion:

Rinse mouth with water. If swallowed, do NOT induce vomiting. Seek medical advice.

Indication of immediate medical attention and special treatment needed:

Treat symptomatically.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media:

Fine water spray, normal foam, dry agent (carbon dioxide, dry chemical powder).

Specific hazards arising from the chemical:

Decomposes on heating emitting toxic fumes including those of oxides of carbon, oxides of nitrogen.

Special protective equipment and precautions for fire-fighters:

Fire fighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to products of decomposition.

6. ACCIDENTAL RELEASE MEASURES

Emergency procedures/Environmental precautions:

Clear area of all unprotected personnel. Do not allow container or product to get into drains, sewers, streams or ponds. If contamination of sewers or waterways has occurred advise local emergency services.

Personal precautions/Protective equipment/Methods and materials for containment and cleaning up:

Slippery when spilt. Avoid accidents, clean up immediately. Wear protective equipment to prevent skin and eye contact. Avoid breathing in dust. Work up wind or increase ventilation. Sweep or vacuum up, but avoid generating dust. Collect and seal in properly labelled containers or drums for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling:

Avoid skin and eye contact and breathing in dust. Wash hands thoroughly after handling.

Conditions for safe storage, including any incompatibilities:

Store in a cool, dry, well ventilated place. Store away from sources of heat or ignition. Store only in the original packaging. Store away from incompatible materials described in Section 10. Keep containers closed when not in use - check regularly for spills.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters: No value assigned for this specific material by Safe Work Australia. However, Workplace Exposure Standard(s) for constituent(s):

Dusts not otherwise classified: 8hr TWA = 10 mg/m³

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As published by Safe Work Australia Workplace Exposure Standards for Airborne Contaminants.

TWA - The time-weighted average airborne concentration of a particular substance when calculated over an eight-hour working day, for a five-day working week.

These Workplace Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These workplace exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

Appropriate engineering controls:

Ensure ventilation is adequate to maintain air concentrations below Workplace Exposure Standards. Keep containers closed when not in use.

If in the handling and application of this material, safe exposure levels could be exceeded, the use of engineering controls such as local exhaust ventilation must be considered and the results documented. If achieving safe exposure levels does not require engineering controls, then a detailed and documented risk assessment using the relevant Personal Protective Equipment (PPE) (refer to PPE section below) as a basis must be carried out to determine the minimum PPE requirements.

Individual protection measures, such as Personal Protective Equipment (PPE):

The selection of PPE is dependent on a detailed risk assessment. The risk assessment should consider the work situation, the physical form of the chemical, the handling methods, and environmental factors.

OVERALLS, SAFETY SHOES, SAFETY GLASSES, GLOVES, DUST MASK.



Wear overalls, safety glasses and impervious gloves. Avoid generating and inhaling dusts. If determined by a risk assessment an inhalation risk exists, wear a dust mask/respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Flakes Colour: White or Light Yellow Odour: **Odour Threshold:** Solubility: Specific Gravity: Relative Vapour Density (air=1): Not available Vapour Pressure (20 °C): Flash Point (°C): Flammability Limits (%): Autoignition Temperature (°C): Melting Point/Range (°C): **Decomposition Point (°C):**

Odourless Not available Insoluble in water. Not available Not available Not applicable Not available Not available Not available Not available

pH:	Not applicable			
10. STABILITY AND REACTIVITY				
Reactivity:	No information available.			
Chemical stability:	Stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.			
Possibility of hazardous reactions:	None known.			
Conditions to avoid:	Avoid exposure to heat.			
Incompatible materials:	Incompatible with strong oxidising agents.			
Hazardous decomposition products:	Oxides of carbon. Oxides of nitrogen.			

11. TOXICOLOGICAL INFORMATION

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

Ingestion:	No adverse effects expected, however, large amounts may cause nausea and vomiting.
Eye contact:	May be an eye irritant. Exposure to the dust may cause discomfort due to particulate nature. May cause physical irritation to the eyes.
Skin contact:	Contact with skin may result in irritation.
Inhalation:	Breathing in dust may result in respiratory irritation.
Acute toxicity: Oral LD50 (rat): >10,000 mg/kg	
Respiratory or skin sensitisation:	Not classified.
Chronic effects:	
Mutagenicity: Carcinogenicity: Reproductive toxicity: Specific Target Organ Toxicity (STOT) - single exposure: Specific Target Organ Toxicity (STOT) - repeated exposure: Aspiration hazard:	Not classified. Not classified. Not classified. Not classified. Not classified.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Avoid contaminating waterways.

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Persistence/degradability:	The material is biodegradable.
Bioaccumulative potential:	No information available.
Mobility in soil:	No information available.
Aquatic toxicity:	Toxic to aquatic organisms.
48hr EC50 (Daphnia magna): 96hr LC50 (fish):	13.69 mg/L 1.73 mg/L

13. DISPOSAL CONSIDERATIONS

Disposal methods:

Refer to Waste Management Authority. Dispose of contents and container in accordance with local, regional, national, international regulations.

14. TRANSPORT INFORMATION

Road and Rail Transport

Not classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by Road and Rail; NON-DANGEROUS GOODS.

Marine Transport

Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea; NON-DANGEROUS GOODS.

Air Transport

Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air; NON-DANGEROUS GOODS.

15. REGULATORY INFORMATION

Classification:

Based on available information, not classified as hazardous according to Safe Work Australia; NON-HAZARDOUS CHEMICAL.

Classification of the chemical:

The following health/environmental hazard categories fall outside the scope of the Workplace Health and Safety Regulations: Acute Aquatic Toxicity - Category 2

Poisons Schedule (SUSMP): None allocated.

This material is listed on the Australian Inventory of Chemical Substances (AICS).

16. OTHER INFORMATION

Supplier Safety Data Sheet; 03/ 2017.

This safety data sheet has been prepared by Ixom Operations Pty Ltd (Toxicology & SDS Services).



Reason(s) for Issue: First Issue Primary SDS

This SDS summarises to our best knowledge at the date of issue, the chemical health and safety hazards of the material and general guidance on how to safely handle the material in the workplace. Since Ixom Operations Pty Ltd cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, assess and control the risks arising from its use of the material.

If clarification or further information is needed, the user should contact their Ixom representative or Ixom Operations Pty Ltd at the contact details on page 1.

Ixom Operations Pty Ltd's responsibility for the material as sold is subject to the terms and conditions of sale, a copy of which is available upon request.