


CHITOSAL SAFETY DATA SHEET

1 - IDENTIFICATION

Product identifier:	ChitoSal
Recommended use:	Supplement to improve plant immunity and vigor. Natural effector for plant immune system. For soil and hydroponic systems.
Restriction on use:	For professional use only.
Manufacturer:	MIIM Horticulture LTD Unit 201 – 7575 North Fraser Way Burnaby, British Columbia, V5J 4Z3
Phone No.:	1 604 415 7767 (8.30AM to 5PM)
Emergency phone No.:	BC Poison Control Centre 1-800-567-8911

2 - HAZARD IDENTIFICATION

Classification:	Eye irritation - Category 2B.
Label elements:	
Signal word:	Warning.
Hazard statement:	Causes serious eye irritation.
Precautionary statement:	
Prevention:	P280: Wear eye protection P234: Keep only in original packaging. P262: Do not get in eyes, on skin, or on clothing. P264: Wash hands thoroughly after handling.
Response:	P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. P314: Get medical advice/attention if you feel unwell. P302+P352: IF ON SKIN: Wash with plenty of water/soap. P305+P351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337: If eye irritation persists: Get medical advice/attention.
Storage:	P235: Keep cool.
Disposal:	P501: Dispose of contents/container in accordance with regional regulations of environmental authority.
Other hazards:	None known.



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3 - COMPOSITION/INFORMATIONS ON INGREDIENTS

Substance/concoction: Mix

Chemical name	CAS	Concentration (%)
Willow bark extract	84082-82-6	1 - 5
Low molecular weight chitosan	9012-76-4	0.1 - 1

Based on current knowledge of the supplier and within application concentrations, no other ingredients present are classified as hazardous to health or the environment and hence require reporting in this section.

4 - FIRST-AID MEASURES

Inhalation:	Remove person to fresh air. Get medical advice/attention in case of discomfort.
Skin contact:	Wash with plenty of water/soap. Get medical advice/attention if symptoms develop.
Eye contact:	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention in case of discomfort.
Ingestion:	Rinse mouth. Do not induce vomiting. Drink small amounts of water. Get medical advice/attention if symptoms develop.
Most important symptoms and effects:	See section 11 for more information on health effects and possible symptoms. None known.
Immediate medical attention and special treatment:	None known.

5 - FIRE-FIGHTING MEASURES

Suitable extinguishing media:	Use an appropriate extinguishing agent for the location.
Unsuitable extinguishing media:	None known.
Specific hazards arising from the product:	None known.
Special protective equipment and precautions for fire-fighters:	In case of fire, use standard protection equipment (self-contained breathing apparatus, mask, gloves, etc.). The product is not a fire accelerator.



6 - ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures:

Wear appropriate protective equipment. Latex or nitrile gloves are recommended for spills.

Methods and materials for containment and cleaning up: Absorb liquids with non-combustible and non-toxic absorbent and place it in a reclosable, well identified container. Eliminate the container in accordance with local authority. Rinse affected zone with water.

7 - HANDLING AND STORAGE

Precautions for safe handling:

Handle with care. Avoid splashing.

Conditions for safe storage:

Observe local laws for storage. Store product in a cool place. Avoid exposure to sunlight and heat source and proximity to oxidising agent.

8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters:

Professional exposure limit values:

No exposure limit value known.

Biological exposure index:

No exposure index known.

Appropriate engineering controls:

Good ventilation is sufficient to avoid exposure problems.

Individual protection measures:

Respiratory protection:

Not required.

Skin protection:

Not required. Wash hands after handling.

Eye/Face protection:

Not required.

9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance:

Bron opaque liquid

Odour:

Component characteristic

Odour threshold:

Not applicable

pH:

4.0 to 4.2

Melting point/freezing point:

0°C

Initial boiling point/range:

100°C

Flash point:

None

Evaporation rate:

Not available

Flammability (solid, gas):

Not applicable

Lower flammability or explosive limit:

Not applicable

Upper flammability or explosive limit:

Not applicable



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Vapour pressure:	Not available
Vapour density:	Not available
Relative density:	1.01 to 1.015
Solubility:	Complete
Partition coefficient, n-octanol/water:	Not available
Auto-ignition temperature:	Not applicable
Decomposition temperature:	Not applicable
Viscosity:	Dynamic: 0 cps at room temperature.

10 - STABILITY AND REACTIVITY

Reactivity:	Not reactive under standard conditions of use.
Chemical stability:	Stable
Possibility of hazardous reactions:	No risk of hazardous reaction known.
Conditions to avoid:	High temperature.
Incompatible materials:	Strong acids, bases and oxidizing agents.
Hazardous decomposition products:	None known at standard usable conditions.

11 - TOXICOLOGICAL INFORMATION

Likely routes of exposure:	Eyes, skin, ingestion.
Acute toxicity:	None known under standard conditions of use.
Skin corrosion/irritation:	No known effects.
Serious eye damage/irritation:	Causes serious eye irritation.
Respiratory and/or skin sensitization:	No known effects.
Specific organ toxicity:	No known effects.
Carcinogenicity:	Not known to be carcinogenic.
Reproductive toxicity:	No known effects.
Germ cell mutagenicity:	Not known to be mutagenic.

12 - ECOLOGICAL INFORMATION

Marine and land ecotoxicology:	Not known to be ecotoxic.
Persistence and degradability:	Organic ingredients readily biodegradable according to OECD criteria (series 301 A to F).
Bioaccumulative potential:	Not bioaccumulative.
Mobility in soil:	Not available.
Other adverse effects:	No known effects.



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13 - DISPOSAL CONSIDERATIONS

Disposal methods: Dispose of contents and container in accordance with local regulations. If the container is rinsed, promote recycling of the container.

14 - TRANSPORT INFORMATION

UN No.: Not regulated.

Proper shipping name: Not available.

Transport hazard class(es): Not regulated.

Packing group: Not regulated.

Environmental hazards: Not available.

Transport in bulk according to annex II of MARPOL 73/78 and the IBC Code:

Not available.

Special precautions: Ensure that containers are securely fastened in the truck and that the driver knows what to do in the event of an accident or spill.

15 - REGULATORY INFORMATION

The product classification and SDS were developed in accordance with the HPR.

16 - OTHER INFORMATION

Written by: Regulatory Department of 1259498 Ltd.

Phone No.: 1 604 415 7767 (8.30AM to 5PM)

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