

1. IDENTIFICATION

PRODUCT IDENTIFIER: Consequence™

SYNONYMS: Chitosan, Poly-D-glucosamine

RECOMMENDED USE: Fungicide, Nematicide, Bactericide for Crop Protection

SUPPLIER IDENTIFICATION: Impello Biosciences
815 14th Street SW, Loveland, CO 80537
Phone: (720) 772-9767
info@impellobio.com
www.impellobio.com

EMERGENCY PHONE NUMBER: For health emergency, call National Pesticide Information Center: (800) 858-7378.

2. HAZARD(S) IDENTIFICATION

HAZARD CLASSIFICATIONS: This product is classified as not hazardous under OSHA's Hazard Communication Standard, 29 CFR 1910.1200 (HCS) and the United Nations' Globally Harmonized System of Classification and Labeling of Chemicals (GHS). However, all chemicals handled and used in the workplace should be treated with caution.

SIGNAL WORD: Not applicable.

HAZARD STATEMENTS: Not applicable.

PICTOGRAMS: Not applicable.

PRECAUTIONARY STATEMENTS:

PREVENTION: Not applicable.

RESPONSE: Not applicable.

STORAGE: Not applicable.

DISPOSAL: Not applicable.

HAZARDS NOT OTHERWISE SPECIFIED: Not applicable.

TOXICITY STATEMENT: Not applicable.

3. COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENT	COMMON NAME/SYNONYMS	CAS NUMBER	% BY WEIGHT
Chitosan	Poly-D-glucosamine	9012-76-4	≥ 5.0%
Citric Acid, Anhydrous	Citric Acid	77-92-9	proprietary
Water	Water	7732-18-5	proprietary

4. FIRST-AID MEASURES

INHALATION: Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Call a physician if symptoms occur.

INGESTION: Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, keep head low so that vomit does not enter lungs. Never give anything by mouth to an unconscious person. Call a physician or poison control center if symptoms occur.

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4. FIRST-AID MEASURES (CONTINUED)

- SKIN CONTACT:** Wash skin with soap and plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Wash clothing before reuse. Call a physician if symptoms occur.
- EYE CONTACT:** Check for and remove contact lenses, if present and easy to do. Immediately flush eyes with gentle but large stream of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Call a physician if symptoms occur.
- GENERAL ADVICE:** Poison information centers in each state can provide additional assistance for scheduled poisons. Ensure that those providing first aid and medical personnel are aware of the material(s) involved and take precautions to protect themselves.
- SYMPTOMS AND EFFECTS:** Inhalation may cause irritation. Ingestion may cause nausea, tooth discoloration, irritation, vomiting, and diarrhea. Skin contact may cause irritation. Eye contact may cause irritation. Prolonged or repeated exposure may affect skin and teeth; may cause allergic reactions.
- IMMEDIATE MEDICAL CARE/SPECIAL TREATMENT:** Treat symptomatically.

5. FIRE-FIGHTING MEASURES

SUITABLE (AND UNSUITABLE) EXTINGUISHING MEDIA:

Suitable extinguishing media:

Water spray, dry powder, alcohol resistant foam, carbon dioxide.

Unsuitable extinguishing media:

Do not use a solid (straight) water stream, as it may scatter and spread fire.

HAZARDOUS COMBUSTION: Carbon oxides.

PRODUCTS:

SPECIFIC HAZARDS: Excessive thermal conditions may cause decomposition and yield corrosive and/or toxic fumes.

SPECIAL PROTECTIVE EQUIPMENT / PRECAUTION FOR FIREFIGHTERS: As in any fire, wear MSHA/NIOSH-approved (or equivalent), self-contained, positive-pressure or pressure-demand breathing apparatus and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES:

Isolate hazard area and keep unnecessary and unprotected personnel away from the area of the leak or spill. Wear appropriate personal protective equipment (see Section 8). Avoid contact with eyes, skin, and clothing.

EMERGENCY PROCEDURES: In case of chemical emergency, or if unsure how to address an accidental release, consult a professional (see Section 1).

METHODS FOR CONTAINMENT: Stop the flow of material, if this is without risk. Prevent entry into waterways, sewer, basements, or confined areas. Dike the spilled material, where this is possible. Product should not be released to the environment. Contain and recover waste when possible.

METHODS FOR CLEANUP: Absorb spill with an inert material (e.g. vermiculite, dry sand, earth, cloth, or fleece) and place in a non-combustible container for reclamation or disposal. Do not flush to sewer. Clean contaminated surface thoroughly. Residues from spills can be diluted with water. Never return spills in original containers for reuse. Clean up in accordance with all applicable regulations.

7. HANDLING AND STORAGE

HANDLING: Wear personal protective equipment (see Section 8). Avoid contact with skin, eyes, and clothing. Do not ingest. When using, do not eat, drink, or smoke. Keep away from incompatible materials (see Section 10). Handle in accordance with

STORAGE: Store in a cool, dry, ventilated area. Store in a segregated and approved area away from heat and incompatible materials (see Section 10). Store in original container. Keep containers tightly closed and upright. Keep away from food, drink, and animal foodstuffs. Keep out of the reach of children. Comply with all national, state, and local codes pertaining to the storage, handling, dispensing, and disposal of this product.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE LIMITS:

Chitosan: No information found.

Citric Acid, Anhydrous: No information found.

ENGINEERING CONTROLS:

Ensure adequate ventilation. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

PERSONAL PROTECTIVE MEASURES:

Eye/Face Protection:

Wear safety glasses with side shields or safety goggles. Maintain approved eye wash station and accessible rinse facilities in work area.

Skin Protection:

Wear appropriate chemical resistant clothing (with long sleeves) and appropriate chemical resistant gloves.

Respiratory Protection:

An air-purifying, NIOSH-approved respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Use a positive-pressure, air-supplied respirator if there is any potential for an uncontrolled release, if exposure levels are unknown, or if any other circumstances exist where air-purifying respirators may not provide adequate protection.

Specific Requirements for Personal Protective Equipment:

Ensure that glove material is compatible with this product. This information is available from glove manufacturers.

9. PHYSICAL AND CHEMICAL PROPERTIES

Unless otherwise indicated, all properties are given at 25 °C and standard pressure.

Appearance: Colorless, clear, transparent liquid.

Odor: Odorless.

Odour threshold: No information found.

Formula Weight: Mixture.

pH: < 4 at 25 °C

Melting/Freezing Point: No information found.

Boiling Point/Range: No information found.

Decomposition Temperature: No information found.

Flash Point: Not applicable.

Auto-ignition Temperature: Not applicable.

Flammability: Not flammable.

Flammability/Explosive Limits: Not applicable.

9. PHYSICAL AND CHEMICAL PROPERTIES (CONTINUED)

Solubility: Miscible with water.

Vapor Pressure: No information found.

Vapor Density: No information found.

Specific Gravity: No information found.

Evaporation Rate: No information found.

Viscosity: No information found.

Partition Coefficient (n-octanol/water): No information found.

10. STABILITY AND REACTIVITY

REACTIVITY DATA: No information found.

CHEMICAL STABILITY: Stable under normal conditions.

CONDITIONS TO AVOID: Excessive heat, incompatible materials.

INCOMPATIBLE MATERIALS: Metals, strong oxidizers, bases, strong acids, strong reducers.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon oxides.

POSSIBILITY OF HAZARDOUS REACTIONS: May react vigorously or violently with the incompatible materials listed above. Excessive thermal conditions may yield hazardous decomposition products listed above.

HAZARDOUS POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL INFORMATION

ROUTES OF EXPOSURE: Inhalation, ingestion, skin contact, eye contact.

ACUTE EFFECTS: May cause irritation if swallowed, inhaled, or exposed to the skin or eyes.

CHRONIC EFFECTS: Prolonged or repeated exposure may affect skin and teeth; may cause allergic reactions.

TOXICOLOGICAL DATA:

Chitosan: LD₅₀ Oral, Rat: 5000 mg/kg

Citric Acid, Anhydrous: LD₅₀ Oral, Rat: 5400 mg/kg

Causes irritation to eyes based on animal data.

SYMPTOMS OF EXPOSURE: Irritation, nausea, tooth discoloration, vomiting, diarrhea.

CARCINOGENIC EFFECTS: No component of this product is considered to cause cancer by IARC, ACGIH, NTP, or OSHA.

12. ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL DATA:

Chitosan: LD₅₀ Water Flea (Daphnia magna): 2.62 mg/L 48 h

Citric Acid, Anhydrous: LD₅₀ Water Flea (Daphnia magna): 1534 mg/L 24 h

PERSISTENCE AND DEGRADABILITY: No information found.

ENVIRONMENTAL EFFECTS: May be hazardous to aquatic organisms. May adversely affect pH of aquatic ecosystems. Avoid release to the environment.

13. DISPOSAL CONSIDERATIONS

DISPOSAL INSTRUCTIONS: Dispose of this material and its container to an approved waste collection point. Minimize exposure to product waste (see Section 8). Do not dispose unused waste down drains or into sewers. All wastes must be handled in accordance with local, state, and federal regulations.

CONTAMINATED PACKAGING: Because containers retain product residue, follow label warnings even after container is emptied. Offer rinsed packaging material to local recycling facilities.

WASTE CODES: No information found.

14. TRANSPORT INFORMATION

DOT: Not regulated.

ENVIRONMENTAL HAZARD REGULATIONS: No information found.

OTHER TRANSPORT PRECAUTIONS: No information found.

15. REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS:

OSHA: This product is not considered a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Inventory: All components of this product are on the U.S. TSCA Inventory.

U.S. EPCRA (SARA TITLE III):

Section 302: No information found.

Section 311/312:

HAZARD SECTION	LIST (YES/NO)
Section 311 – Hazardous Chemical	No
Immediate Hazard	No
Delayed Hazard	No
Fire Hazard	No
Pressure Hazard	No
Reactivity Hazard	No

Section 313: No information found.

CERCLA REPORTABLE QUANTITIES: No information found.

16. OTHER INFORMATION

Disclaimer: The information contained in this Safety Data Sheet, as of the issue date, is believed to be true and correct. However, the accuracy or completeness of this information and any recommendations or suggestions are made without warranty or guarantee. Since the conditions of use are beyond the control of the company, it is the responsibility of the user to determine the conditions of safe use of this product. The information does not represent analytical specifications.

Issue Date: September 15, 2025.

Reason for Revision: Initial Revision.

****END OF SDS****