



**PhytoTechnology
Laboratories®**

SAFETY DATA SHEET

1. CHEMICAL IDENTIFICATION AND COMPANY INFORMATION

PRODUCT NAME: Deconstructed MS Group IV (Micros w/o Fe), 100x Murashige & Skoog
 PRODUCT NUMBER: M5634
 COMPANY INFO: *PhytoTechnology Laboratories®*
 PO Box 12205, Shawnee, KS 66282-2205
 Phone: 1-888-749-8682 or 1-913-341-5343; Fax: 1-888-449-8682 or 1-913-341-5442
 www.phytotechlab.com
 EMERGENCY PHONE NUMBER: 1-800-424-8802
 RECOMMENDED USE: Research Only
 RESTRICTIONS ON USE: Products sold by *PhytoTechnology Laboratories®* are intended for research and laboratory use only. Products are not to be used as human or animal therapeutics, cosmetics, agricultural or pesticidal products, food additives, or as household chemicals.

2. HAZARDS IDENTIFICATION

GHS Classification:

Acute aquatic toxicity (Category 3), H402
 Chronic aquatic toxicity (Category 3), H412

GHS Label Element:

Pictogram: None

Signal Word: None

Hazard Statements:

- H302 – Harmful if swallowed.
- H315 – Causes skin irritation.
- H317 – May cause an allergic skin reaction.
- H319 – Causes serious eye irritation.
- H334 – May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- H341 – Suspected of causing genetic defects.
- H350 – May cause cancer.
- H360 – May damage fertility or the unborn child
- H402 – Harmful to aquatic life.
- H410 – Very toxic to aquatic life with long lasting effects.
- H412 – Harmful to aquatic life with long lasting effects.

Precautionary Statements:

- P273 – Avoid release to the environment.
- P501 – Dispose of contents/ container to an approved waste disposal plant.

HMIS Rating:	Health	Flammability	Reactivity	Physical Hazard
	0		0	0
NFPA Rating:	Health	Flammability	Reactivity	Special Hazard
	0	0	0	

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms: N/A
CAS No: N/A
Formula: N/A
Molecular Weight: N/A

Ingredient	CAS Number	Percent	Hazardous
Water	7732-18-5	97.717%	No exposure limits established by OSHA or ACGIH
Manganese Sulfate, Heptahydrate	10034-96-5	1.69%	No exposure limits established by OSHA or ACGIH
Zinc Sulfate, Heptahydrate	7446-20-0	0.86%	No exposure limits established by OSHA or ACGIH
Boric Acid	10043-35-3	0.62%	No exposure limits established by OSHA or ACGIH
Potassium Iodide	7681-11-0	0.083%	No exposure limits established by OSHA or ACGIH
Sodium Molybdate, Dihydrate	10102-40-6	0.025%	No exposure limits established by OSHA or ACGIH
Cobalt Chloride, Hexahydrate	7791-13-1	0.0025%	No exposure limits established by OSHA or ACGIH
Cupric Sulfate, Pentahydrate	7758-99-8	0.0025%	No exposure limits established by OSHA or ACGIH

4. FIRST AID MEASURES

Route of Entry	Symptoms	First Aid Procedures
Ingestion	May cause irritation if swallowed	If swallowed, wash out mouth with water. Never give anything by mouth to an unconscious person. Get medical attention.
Inhalation	May cause irritation to respiratory tract	Safely remove victim to fresh air. If not breathing, institute cardiopulmonary resuscitation (CPR). If breathing is difficult, ensure clear airway and give oxygen. Get medical attention.
Eye Contact	Direct contact may cause irritation. May cause redness, tearing, or blurred vision.	Flush immediately with large amounts of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Get medical attention if irritation persists.
Skin Contact	Irritating. May cause reddening, itching or inflammation.	Wash area thoroughly with soap and water. Remove and wash contaminated clothing. Get medical attention if irritation persists.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media:	Water spray, carbon dioxide, dry chemical powder, or appropriate foam. Use extinguishing media suitable for surrounding fire.
Special Protective Equipment and Precaution for Firefighters:	In the event of a fire, wear full protective clothing and NIOSH approved self-contained breathing apparatus. Evacuate the area and fight fire from a safe distance.
Hazardous Combustion Products:	May emit toxic fumes under fire conditions.

6. ACCIDENTAL RELEASE MEASURES

Ventilation:	Ventilation hood recommended
Eye/Skin Protection:	Have eye-washing facilities readily available where eye contact can occur. Wear chemical safety goggles. Use appropriate chemical protective gloves when handling. Showering and changing into street clothes after work is recommended.
Protective Equipment:	A NIOSH/MSHA approved air purifying respirator is recommended where airborne concentrations are expected to exceed exposure limits. Protection provided by purifying respirators is limited. Wear suitable protective clothing and a self-contained breathing apparatus if available.

Method of Containment and Cleanup: Carefully sweep up and remove. Place material in a dry container and cover. Remove from the area. Flush spill area with water.

7. HANDLING AND STORAGE

Storage and Handling Precaution: Keep in a tightly closed container, stored in a cool, dry, ventilated area. Avoid incompatible substances. Wash thoroughly after use.

Incompatibilities: Strong oxidizing agent

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

OSHA's Permissible Exposure Limits (PELs): 5.0 – 15.0 mg/m³ (Sodium molybdate, dihydrate)

Threshold Limit Values (TLVs): 0.50 – 10.0 mg/m³ (Sodium molybdate, dihydrate)

Engineering Controls: N/A

Personal Protective Equipment (PPE): Safety glasses, protective gloves, lab coat, and an appropriate dust mask

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Clear, colorless liquid

pH: 3.5 – 5.5

Solubility: Miscible with water

Melting Range: No data available

Vapor Density: No data available

Vapor Pressure: No data available

Specific Gravity: No data available

Odor: Odorless

Odor Threshold: No data available

Flash Point (Closed Cup): N/A

Flammable Limits: Upper – N/A % Lower – N/A %

10. STABILITY AND REACTIVITY

Chemical Stability: Stable under normal conditions of use

Possibility of Hazard Reactions: Will not occur

Conditions to Avoid: No data available

Incompatibles Materials: Strong oxidizing agents

Hazardous Decomposition Products: Carbon monoxide, carbon dioxide

11. TOXICOLOGICAL INFORMATION

Toxicity: LD₅₀ (Oral-Rat)(mg/Kg): No data available

LD₅₀ (Oral-Mouse)(mg/Kg): No data available

LD₅₀ (Dermal-Rabbit)(mg/Kg): No data available

Carcinogenicity: NTP: No

IARC: No

Z List: No

OSHA Reg: No

Teratogenicity: N/A

Effects of Overexposure: Irritation, sneezing, gastrointestinal upset

Target Organs: None identified
Medical Conditions Aggravated By Exposure: None identified
Routes of Entry: Inhalation, Ingestion

The toxicological properties of this product have not been thoroughly investigated

12. ECOLOGICAL INFORMATION

Ecotoxicity:

Persistence and Degradability: No data available
Bioaccumulative Potential: No data available
Mobility in Soil: No data available
Other Adverse Effects: No data available

13. DISPOSAL CONSIDERATION

Disposal Procedure: Dispose in accordance with all applicable federal, state, and local environmental regulations.

EPA Hazardous Waste Number: N/A

14. TRANSPORT INFORMATION

Domestic (D.O.T.): Proper Shipping Name: CHEMICALS, N.O.S. (NON-REGULATED)
Hazard Class: N/A
UN/NA: N/A
Labels: N/A

International:

IMDG: Proper Shipping Name: CHEMICALS, N.O.S. (NON-REGULATED)
Hazard Class: N/A
UN/NA: N/A
Labels: N/A

IATA: Proper Shipping Name: CHEMICALS, N.O.S. (NON-REGULATED)
Hazard Class: N/A
UN/NA: N/A
Labels: N/A

15. REGULATORY INFORMATION

TSCA: Yes

SARA TITLE III:

Section 302 (EHS) Ingredients: No
Section 313 Ingredients: No
Section 304 (EHS/CERCLA) Ingredients: No

SARA TITLE III NOTIFICATION INFORMATION

Acute Health Hazard: No
Chronic Health Hazard: No
Fire Hazard: No

Sudden Release of Pressure Hazard:	No
Massachusetts Right to Know Components:	No components are subject to the Massachusetts Right to Know Act.
Pennsylvania Right to Know Components:	CAS No.: 7758-99-8 Copper sulfate pentahydrate; 7446-20-0 Zinc sulfate heptahydrate
New Jersey Right to Know Components:	No components are subject to the Massachusetts Right to Know Act.
California Prop. 65 Components:	This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER INFORMATION

***PhytoTechnology Laboratories®* provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. The above information is intended to be used only as a guide to the appropriate precautionary handling of this material by a properly trained person. *PhytoTechnology Laboratories®* shall not be held liable for any damage resulting from handling or from contact with the above product. This product is intended for LABORATORY USE ONLY. Our products may NOT BE USED as drugs, cosmetics, agricultural or pesticidal products, food additives or as household chemicals.**

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