

**Material Safety Data Sheet  
(MSDS)**

**Murashige and Skoog Medium  
(Micro and Macro Elements with Vitamins)**

**Version: 1.0**

**MS-M-3602**

Material Safety Data Sheet (MSDS)  
**Murashige and Skoog Medium**  
**(Micro and Macro Elements with Vitamins)**

Date of Issue: 2022-05-05

Supersedes: 2022-06-20

**MS-M-3602**

**SECTION 1. IDENTIFICATION**

**Product Form** : Mixture  
**Trade Name** : Murashige and Skoog Medium  
(Micro and Macro Elements with Vitamins)  
**Brand** : BotanicaHorti  
**Product Code** : MS-M-3602  
**Main Use Category** : Professional Use  
**Recommended Use** : For Plant Tissue Culture Purposes only

**Details of the supplier of the Safety Data Sheet:**

**Supplier**

Botanica Horticulture Pty Limited  
No: 25, Corymbia Grove  
South Morang, Victoria - 3752  
Australia

**Emergency Contact Information**

Tel Number (Office) : 0061394240115  
(Monday – Friday 09:00 – 17:00)  
Tel Number (Lab) : 0061449750584  
(Monday – Friday 09:00 – 17:00)  
Fax Number : 0061394240115  
Emergency Number (Outside Office Hours) : 0061449750584

**Emergency Contact Details**

<b>Organization</b>	<b>Location</b>	<b>Telephone</b>
Poisons Information Center	Westmead NSW	1800-251525 131126
Chemcall	Australia	1800-127406 +64-4-9179888

**SECTION 2. HAZARDS IDENTIFICATION**

**Poisons Schedule (Australia)** : Schedule 5

**Classification of the Substance or Mixture:**

**GHS Classification:**

- H272 – Oxidizing Solids (Category 3)
- H315 - Skin Irritation/Corrosion (Category 2)
- H319 - Serious Eye Damage/Eye Irritation (Category 2)
- H335 - Specific Target Organ Toxicity - Single Exposure - Respiratory System (Category 3)

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**GHS Label Elements, Including Precautionary Statements:**

**Hazard Statements:**

- H272 – May Intensify Fire, Oxidizer
- H315 - Causes Mild Skin Irritation.
- H319 - Causes Serious Eye Damage.
- H335 - May Cause Respiratory Irritation.

**Precautionary Statements:**

- P210 – Keep away from Heat
- P222 – Keep away from Clothing, Combustible Materials
- P221 – Take any Precaution to avoid mixing with Combustibles
- P261 – Avoid Breathing Dust
- P264 – Wash Skin thoroughly after Handling
- P280 – Wear Protective Gloves, Eye Protection, Face Protection
- P302+P352 – IF ON SKIN: Wash with plenty of Water
- P305+P351 – IF IN EYES: Rinse Cautiously with Water for several Minutes.
- P301+P310– IF SWALLOWED: call a POISON CENTER or Doctor if you feel unwell.
- P501 – Dispose of Contents to an approved Waste Plant

**Signal Word:** Warning

**Hazard Pictograms**



**Other Hazards:**

None

**National Transport Commission (Australia)**

Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG Code)

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**SECTION 3. COMPOSITION-INFORMATION ON INGREDIENTS**

**Product Form** : Mixture

<b>Name</b>	<b>Product Identifier</b>	<b>Concentration %</b>	<b>According to GHS</b>
Potassium Nitrate	(CAS- No) 7757-79-1 (EC-No) 231-818-8	43.1309	Oxidizing Solids Category 2 – H272
<b>Ammonium Nitrate</b>	(CAS-No) 6484-52-2 (EC-No) 229-347-8	37.4558	Oxidizing Solids Category 3 – H272 , H319
<b>Calcium Chloride</b>	(CAS-No) 10043-52-4 (EC-No) 233-140-8 (EC Index-No) 017-013-00-2	7.537	Eye Irritation Category 2 – H319
Magnesium Sulfate Anhydrous	(CAS-No) 7487-88-9 (EC-No) 231-298-2	4.0983	Not Classified
Potassium Dihydrogen Phosphate (Mono Potassium Phosphate)	(CAS-No) 7778-77-0 (EC-No) 231-913-4	3.8591	Not Classified
Myo-Inositol	(CAS-No) 87-89-8 (EC-No) 201-781-2	2.27	Not Classified
FeNaEDTA-Ferric Sodium Salt	(CAS-No) 15708-41-5 (EC-No) 239-802-2	0.8331	Not Classified
Manganese Sulfate Monohydrate	(CAS-No) 10034-96-5 (EC-No) 232-089-9 (EC Index-No) 025-003-00-4	0.3836	Eye Damage Category 1 – H318 STOT RE Category 2 – H373 Aquatic Chronic Category 2 – H411
Zinc Sulfate Heptahydrate	(CAS-No) 7446-20-0 (EC-No) 231-793-3 (EC Index-No) 030-006-00-9	0.1952	Acute Toxicity (Oral) Category 4 – H302 Eye Damage Category 1 – H318 Aquatic Acute Category 1 – H400 Aquatic Chronic Category 1 – H410
<b>Boric Acid Substance Listed as REACH Candidate</b>	(CAS-No) 10043-35-3 (EC-No) 233-139-2 (EC Index-No) 005-007-00-2	0.1407	Reproductive Toxicity Category 1B – H360FD
Glycine	(CAS-No) 56-40-6 (EC-No) 200-272-2	0.0454	Not Classified
Potassium Iodide	(CAS-No) 7681-11-0 (EC-No) 231-659-4	0.0188	Acute Toxicity (Oral) Category 4 – H302 Skin Irritation Category 2 – H315 Eye Irritation Category 2 – H319

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Pyridoxine HCl (Vitamin B6)	(CAS-No) 58-56-0 (EC-No) 200-386-2	0.0114	Eye Damage Category 1 – H318
Nicotinic Acid	(CAS-No) 59-67-6 (EC-No) 200-441-0	0.0114	Eye Irritation Category 2 – H319
Sodium Molybdate Dihydrate	(CAS-No) 10102-40-6 (EC-No) 231-589-4	0.0057	Not Classified
Thiamine HCl	(CAS-No) 67-03-8 (EC-No) 200-641-8	0.0023	Not Classified
Cobalt Chloride Hexahydrate Substance Listed as REACH Candidate (Cobalt Dichloride)	(CAS-No) 7646-79-9 (EC-No) 231-589-4 (EC Index-No) 027-004-00-5	0.0006	Acute Toxicity (Oral) Category 4 – H302 Respiratory Sensitization Category 1 – H334 Skin Sensitization Category 1 – H317 Germ Cell Mutagenicity Category 2 – H341 Carcinogenicity-Inhalation Category 1B – H350I Reproductive Toxicity Category 1B – H360F Aquatic Acute Category 1 – H400 Aquatic Chronic Category 1 – H410
Copper Sulfate	(CAS-No) 7758-99-8 (EC-No) 231-847-6 (EC Index-No) 029-004-00-0	0.0006	Acute Toxicity (Oral) Category 4 – H302 Skin Irritation Category 2 – H315 Eye Irritation Category 2 – H319 Aquatic Acute Category 1 – H400 Aquatic Chronic Category 1 – H410

**Specific Concentration Limits**

Name	Product Identifier	Specific Concentration Limits
<b>Boric Acid</b>	(CAS-No) 10043-35-3 (EC-No) 233-139-2 (EC Index-No) 005-007-00-2	(C >= 5.5) Reproductive Toxicity Category 1B – H360FD
<b>Cobalt Chloride Hexahydrate</b>	(CAS-No) 7646-79-9 (EC-No) 231-589-4 (EC Index-No) 027-004-00-5	(C >= 0.01) Carcinogenicity-Inhalation Category 1B – H350I

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#### SECTION 4. FIRST AID MEASURES

**Advice:** Consult a Physician. Show this Safety Data Sheet to the Doctor in attendance. Move out of Dangerous area.

**If Swallowed:** Never give anything by Mouth to an Unconscious person. Rinse Mouth with Water. Consult a Physician.

**In Case of Skin Contact:** Wash off with Soap and plenty of Water. Consult a Physician.

**In Case of Eye Contact:** Rinse thoroughly with plenty of Water for at least 15 minutes and consult a Physician.

**If Inhaled:** If Breathed in move person into Fresh Air. If not breathing, give Artificial Respiration. Consult a Physician.

**Most Important Symptoms and Effects, both Acute and Delayed:**

Symptoms-effect after Skin contacted : Causes Skin Irritation

Symptoms-effect after Eye contacted : Redness and Pain

#### SECTION 5. FIREFIGHTING MEASURES

**Suitable Extinguishing Media:** Use Water Spray, Alcohol-Resistant Foam, Dry Chemical or Carbon Dioxide (CO<sub>2</sub>)

**Special Protective Equipment and Precautions for Fire-Fighters:** Wear self-contained Breathing Apparatus for Firefighting if necessary.

**Special Hazards Arising from the Substance or Mixture:**

Nitrogen Oxides (NO<sub>x</sub>), Ammonia, Carbon Oxides, Sulfur Oxides, Oxides of Phosphorus, Hydrogen Chloride gas, Potassium Oxides, Sodium Oxides, Magnesium Oxides, Cobalt Oxides, Calcium Oxides,

Not Combustible

Has a Fire promoting effect due to release of Oxygen

Ambient Fire may liberate Hazardous Vapours

**Advice for Firefighters:** In the event of Fire, Wear Self-Contained Breathing Apparatus

**Further Information:** Suppress (Knock Down) gases, Vapours, Mists with a Water Spray Jet. Prevent Fire Extinguishing Water from Contaminating Surface Water or the ground Water system

#### SECTION 6. ACCIDENTAL RELEASE MEASURES

**Personal Precautions, Protective Equipment and Emergency Procedures:** Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

**Environmental Precautions:** Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

**Methods and Material for Containment and Cleanup:** Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

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#### SECTION 7. HANDLING AND STORAGE

**Precautions for Safe Handling:** Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.

**Advice on Protection against Fire and Explosion:** Keep away from open Flames, Hot Surfaces and sources of Ignition

**Hygiene Measures:** Change Contaminated Clothing, wash Hands after working with Substance

**Conditions for Safe Storage:** Keep Container tightly closed in a Dry and well-Ventilated place. Light sensitive. Keep in a Dry place. And do not store near Combustible Materials

**Recommended Storage Temperature:** Store at Room Temperature

**Storage Class:** Storage Class (TRGS 510): 5.1B: Oxidizing Hazardous Materials

#### SECTION 8. EXPOSURE CONTROLS-PERSONAL PROTECTION

**Engineering Controls:** Practice general industrial Hygiene practice. Ensure adequate ventilation, especially in confined areas. And wash Hands after working with Substance

**Eye-Face Protection:** Face Shield and Safety Glasses. Use equipment for Eye protection tested and approved under appropriate Government standards such as NIOSH (US) or EN 166 (EU) Safety Glasses

**Skin and Body Protection:** Wear suitable protective clothing

**Respiratory Protection:** Wear Mask - Filter Type P2 (DIN EN 143 or DIN 14387)

**Hand protection:**

Type	Material	Permeation	Thickness (mm)	Standard
Gloves	Nitrile Rubber (NBR)	6 (> 480 Minutes)	0.11	EN 374

#### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

**Physical State:** Solid

**Appearance:** Powder

**Appearance:** White to Slightly Yellow

**Solubility:** Readily soluble in Water

**Melting Range:** No Data available

**Odor:** Characteristic, Weak

**Odor Threshold:** No Data Available

**PH:** No Data Available

**Viscosity, Kinematic:** No Data Available

**Viscosity, Dynamic:** No Data Available

**Relative Vapor Density at 20 °C:** No Data Available

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**Evaporation Rate:** No Data Available

**Initial Boiling Point and Boiling Range:** No Data Available

**Flash Point:** No Data Available

**Flammability (Solid, gas):** No Data Available

**Flammability Upper/Lower Limits:** No Data Available

**Partition Coefficient:** No Data Available

**Vapor Density:** No Data Available

**Vapor Pressure:** No Data Available

**Auto-Ignition Temperature:** No Data Available

**Decomposition Temperature:** No Data Available

**Freezing Point:** No Data Available

**Explosive Properties:** No Data Available

**Oxidizing Properties:** No Data Available

**Explosive Limits:** No Data Available

## **SECTION 10. STABILITY AND REACTIVITY**

**Reactivity:** Stable under normal conditions of storage, handling and use

**Chemical Stability:** Stable under normal conditions. (Room Temperature)

**Possibilities of Hazardous Reactions:** No dangerous reactions known under normal conditions of use

**Conditions to Avoid:** Moisture

**Incompatible Materials:** Strong Oxidizers, Powdered Metals

**Hazardous Decomposition Productions:** Thermal Decomposition generates CO<sub>x</sub>, NO<sub>x</sub>, SO<sub>x</sub>, and Phosphorus oxides

(For further information see SECTION 5)

## **SECTION 11. TOXICOLOGICAL INFORMATION**

**Acute Toxicity:** Oral-No Data Available, Symptoms-Mucosal irritations, Dermal-No Data Available

**Skin Corrosion/Irritation:** Causes Skin Irritation

**Serious Eye Damage/Irritation:** Causes Serious Eye Irritation

**Respiratory or Skin Sensitization:** No Data Available

**Germ Cell Mutagenicity:** No Data Available

**Carcinogenicity:** No Data Available

**Reproductive Toxicity:** May Harm the Unborn Child, May Impair Fertility

**STOT- Single Exposure:** May Causes Respiratory Irritation

**STOT- Repeated Exposure:** No Data Available

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**Aspiration Hazard:** No Data Available

**Additional Information:** Other Dangerous Properties cannot be excluded. Handle in accordance with good Industrial Hygiene and Safety Practice

#### Components:

##### Ammonium Nitrate;

##### Acute Toxicity

LD 50 Oral-Rat-Male and Female-2950 mg/Kg (OECD Test Guideline 401)

Symptoms: Nausea, Vomiting, Diarrhea, Irritations of Mucous membranes in the Mouth, Pharynx, Oesophagus and Gastrointestinal Tract

LC 50 Inhalation-Rat-4h - > 88.8 mg/l

Remarks: (IUCLID)

Symptoms: Symptoms may be delayed, Mucosal Irritations

LD 50 Dermal-Rat-Male and female - > 5000mg/Kg (OECD Test Guideline 402)

##### Skin Corrosion Irritation

Skin-Rabbit

Result: No Skin Irritation – 4h (OECD Test Guideline 404)

##### Serious Eye Damage-Eye Irritation

Eyes-Rabbit

Result: Irritating to Eyes – 24h (OECD Test Guideline 405)

##### Respiratory or Skin Sensitization

Local Lymph Node Assay (LLNA)-Mouse

Result: Negative (OECD Test Guideline 429)

##### Germ Cell Mutagenicity

Test Type: Mutagenicity (Mammal Cell Test): Chromosome Aberration

Test System: Chinese Hamster Ovary Cells

Result: Negative

Test Type: Chromosome Aberration Test in Vitro

Test System: Chinese Hamster Ovary Cells

Result: Negative

Test Type: Ames Test

Test System: Salmonella Typhimurium

Result: Negative

Remarks: (IUCLID)

##### Carcinogenicity

No Data Available

##### Reproductive Toxicity

No Data Available

##### Specific Target Organ Toxicity-Single Exposure

Acute-Oral Toxicity-Nausea, Vomiting, diarrhea, Irritations of Mucous membranes in the Mouth, Pharynx, Oesophagus and Gastrointestinal Tract

Acute Inhalation Toxicity-Symptoms may be delayed, Mucosal irritations

##### Specific Target Organ Toxicity-Repeated Exposure

No Data Available

##### Aspiration Hazard

No Data Available

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**Calcium Chloride;**

**Acute Toxicity**

Oral-No Data Available

Symptoms: After uptake of large quantities: Stomach-Intestinal Disorders, Nausea

Symptoms: Possible Damages: Mucosal Irritations

LD 50 Dermal-Rabbit-Male and Female - > 5000mg/Kg

Remarks: (ECHA)

**Skin Corrosion Irritation**

Skin-Rabbit

Result: No Skin Irritation – 4h (OECD Test Guideline 404)

**Serious Eye Damage-Eye Irritation**

Eyes-Rabbit

Result: Moderate Eye Irritations (OECD Test Guideline 405)

**Respiratory or Skin Sensitization**

No Data Available

**Germ Cell Mutagenicity**

Test Type: Mutagenicity (Mammal Cell Test): Chromosome Aberration

Test System: Chinese Hamster Fibroblasts

Result: Negative

Test Type: Ames Test

Test System: S. Typhimurium

Result: Negative

Remarks: (Lit.)

**Carcinogenicity**

No Data Available

**Reproductive Toxicity**

No Data Available

**Specific Target Organ Toxicity-Single Exposure**

Acute-Oral Toxicity- After uptake of large quantities: Stomach-Intestinal Disorders, Nausea

Acute Inhalation Toxicity-Possible Damages: Mucosal irritations

**Specific Target Organ Toxicity-Repeated Exposure**

No Data Available

**Aspiration Hazard**

No Data Available

**Boric Acid;**

**Acute Toxicity**

LD 50 Oral-Rat-Male and Female – 3450mg/Kg

Remarks: (ECHA)

LC 50 Inhalation-Rat-Male and Female – 4h - > 2.12mg/l (OECD test Guideline 403)

LD 50 Dermal-Rabbit-Male and Female - > 2000mg/Kg

Remarks: (ECHA)

**Skin Corrosion Irritation**

Skin-Rabbit

Result: No Skin Irritation – 24h

Remarks: (ECHA)

**Serious Eye Damage-Eye Irritation**

Eyes-Rabbit

Result: No Eye Irritations – 24h (OECD Test Guideline 405)

**Respiratory or Skin Sensitization**

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Buehler Test-Guinea Pig

Result: Negative (OECD Test Guideline 406)

#### **Germ Cell Mutagenicity**

Test Type: Sister Chromatid Exchange Assay

Test System: Chinese Hamster Ovary Cells

Result: Negative

Remarks: (ECHA)

Test Type: Ames Test

Test System: S. Typhimurium

Result: Negative

Test Type: In Vitro Mammalian Cell Gene Mutation Test

Test System: Mouse Lymphoma Cells

Result: Negative

Method: (OECD Test Guideline 474)

Species: Mouse-Male and Female

Results: Negative

#### **Carcinogenicity**

No Data Available

#### **Reproductive Toxicity**

May Damage Fertility

May Damage the Unborn Child

#### **Specific Target Organ Toxicity-Single Exposure**

No Data Available

#### **Specific Target Organ Toxicity-Repeated Exposure**

No Data Available

#### **Aspiration Hazard**

No Data Available

## SECTION 12. ECOLOGICAL INFORMATION

**Toxicity:** No Additional Data Available

**Persistence and Degradability:** No Additional Data Available

**Bio Accumulative Potential:** No Additional Data Available

**Mobility in Soil:** No Additional Data Available

**Results of PBT and vPvB Assessment:** PBT/vPvB Assessment not available as Chemical safety Assessment not required and not conducted

**Other Adverse Effects:** No Data Available

**Additional Information:** Prevent entry to Sewers and Public Waters. Avoid release to the Environment

#### **Components:**

##### **Ammonium Nitrate;**

Toxicity to Fish                      Semi-Static Test LC 50-Cyprinus Carpio (Carp)-447mg/l-48h

Remarks: (ECHA)

Toxicity to Daphnia and other      EC 50-Daphnia Magna (Water Flea)-490mg/l-48h

Aquatic Invertebrates              Remarks: (ECHA)

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Toxicity to Algae Static Test- Er C 50-Diatoms - > 1700mg/l-10Days  
Remarks: (In Analogy to similar Products)  
The Value is given in Analogy to the following Substances: Potassium Nitrate

Toxicity to Bacteria EC 50-ActivatedSludge - > 1000mg/l-3h (OECD Test Guideline 209)  
Remarks: (In Analogy to similar Products)  
The Value is given in Analogy to the following Substances: Sodium Nitrate

#### Calcium Chloride;

Toxicity to Fish Static Test LC 50-Pimephales Promelas (Fathead Minnow)-4630mg/l-96h (US-EPA)

Toxicity to Daphnia and other Aquatic Invertebrates Static Test EC 50-Daphnia Magna (Water Flea)-2400mg/l-48h (OECD Test Guideline 202)

Toxicity to Algae EC 50-Pseudokirchneriella Subcapitata-2900mg/l-72h (OECD Test Guideline 201)

#### Boric Acid;

Toxicity to Fish LC 50-Ptychocheilus Lucius-279mg/l-96h  
Remarks: (ECOTOX Database)

Toxicity to Daphnia and other Aquatic Invertebrates EC 50-Daphnia Magna (Water Flea)-133mg/l-48h

### SECTION 13. DISPOSAL CONSIDERATIONS

**Waste Treatment Methods:** Avoid release to the Environment. Dispose in a safe manner in accordance with Local and National Regulations

**Disposal of Packaging:** Dispose of as unused Product.

### SECTION 14. TRANSPORT INFORMATION

ADR - RID	IMDG	IATA - DGR
1477	1477	1477
<b>UN Number</b>		
1477	1477	1477
<b>UN Proper Shipping Name</b>		
NITRATES, INORGANIC, N.O.S	NITRATES, INORGANIC, N.O.S	NITRATES, INORGANIC, N.O.S
<b>Transport Hazard Class(es)</b>		

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5.1	5.1	5.1
<b>Packing Group</b>		
III	III	III
<b>Environmental Hazards</b>		
NO	NO	NO
<b>Special Precautions for User</b>		
NONE		
<b>Incompatible Materials</b>		
Strong Reducing Agents, Strong Acids, Powdered Metals		
<b>Hazchem Code</b>		
1Y		
Clean up even Minor Leaks or Spills if Possible Without Unnecessary Risk		

**Land Transport (Australia)**

ADG Code – Australian Code for the Transport of Dangerous Goods by Road and Rail

**SECTION 15. REGULATORY INFORMATION**

**Safety, Health and Environmental Regulations:**

- DSL:** All components of this Product are on the Canadian DSL  
**ENCS:** On the Inventory or in compliance with the Inventory  
**ISHL:** On the Inventory or in compliance with the Inventory  
**KECI:** On the Inventory or in compliance with the Inventory  
**NZIoC:** Not in compliance with the Inventory  
**PICCS:** On the Inventory or in compliance with the Inventory

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#### SECTION 16. OTHER INFORMATION

##### Abbreviations and Acronyms:

<b>ADG</b>	The Australian Code for the Transport of Dangerous Goods by Road and Rail
<b>ADR</b>	European Agreement Concerning the International Carriage of Dangerous Goods by Road
<b>AICS</b>	Australian Inventory of Chemical Substances
<b>ATE</b>	Acute Toxicity Estimate
<b>BCF</b>	Bio Concentration Factor
<b>DSL</b>	Domestic Substance List
<b>DGR</b>	Dangerous Goods Regulations
<b>ECHA</b>	Guidance on Information Requirements and Chemical Safety
<b>ENCS</b>	Japanese Existing and New Chemical Substances Inventory
<b>GHS</b>	The Globally Harmonized System of Classification and Labelling of Chemicals
<b>HAZCHEM</b>	Hazardous Chemical Code or Emergency Action Code
<b>IATA</b>	International Air Transport Association
<b>IMDG</b>	International Maritime Dangerous Goods
<b>ISHL</b>	Industrial Safety and Health Law
<b>IUCLID</b>	International Uniform Chemical Information Data Base
<b>KECI</b>	Korea Existing Chemical Inventory
<b>LC 50</b>	Median Lethal Concentration
<b>LD 50</b>	Median Lethal Dose
<b>LOAEL</b>	Lowest Observed Adverse Effect Level
<b>MSDS</b>	Material Safety Data Sheet
<b>NOAEC</b>	No-Observed Adverse Effect Concentration
<b>NZIOC</b>	New Zealand Inventory of Chemicals
<b>OECD</b>	Chemical Safety and Bio Safety Guidelines
<b>PBT</b>	Persistent Bio Accumulative Toxic
<b>PICCS</b>	Philippine Inventory of Chemicals and Chemical Substances
<b>REACH</b>	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
<b>RID</b>	Regulations Concerning the International Carriage of Dangerous Goods By Rail
<b>STOT</b>	Specific Target Organ Toxicity

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**Full Text of H - and EUH - Statements**

<b>H272</b>	May Intensify Fire, Oxidizer
<b>H302</b>	Harmful if Swallowed
<b>H315</b>	Causes Skin Irritation
<b>H317</b>	May Causes an Allergic Skin Reaction
<b>H318</b>	May Causes Serious Eye Damage
<b>H319</b>	May Causes Serious Eye Irritation
<b>H334</b>	May Causes Allergy or Asthma Symptoms or Breathing difficulties if Inhaled
<b>H335</b>	May Causes Respiratory Irritation
<b>H341</b>	Suspected of Causing Genetics Defects
<b>H350I</b>	May Causes Cancer by Inhalation
<b>H360F</b>	May Damage Fertility
<b>H360FD</b>	May Damage Fertility, May Damage the Unborn Child
<b>H373</b>	Ma Causes Damage to Organs through Prolonged or Repeated Exposure
<b>H400</b>	Very Toxic to Aquatic Life
<b>H410</b>	Very Toxic to Aquatic Life with long lasting Effects
<b>H411</b>	Toxic to Aquatic Life with long lasting Effects
<b>AUTE TOX (Oral) 4</b>	Acute Toxicity (Oral), Category 4
<b>AQUATIC ACUTE 1</b>	Hazardous to the Aquatic Environment – Acute Hazard, Category 1
<b>AQUAIC CHRONIC 1</b>	Hazardous to the Aquatic Environment – Chronic Hazard, Category 1
<b>AQUATIC CHRONIC 2</b>	Hazardous to the Aquatic Environment – Chronic Hazard, Category 2
<b>CARC. 1B</b>	Carcinogenicity (Inhalation) Category 1B
<b>EYE DAM. 1</b>	Serious Eye Damage/Eye Irritation, Category 1
<b>EYE IRRIT. 2</b>	Serious Eye Damage/Eye Irritation, Category 2
<b>MUTA. 2</b>	Germ Cell Mutagenicity, Category 2
<b>OX. SOL. 2</b>	Oxidizing Solids, Category 2

Material Safety Data Sheet (MSDS)  
**Murashige and Skoog Medium**  
**(Micro and Macro Elements with Vitamins)**

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**MS-M-3602**

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<b>OX. SOL. 3</b>	Oxidizing Solids, Category 3
<b>REPR. 1B</b>	Reproductive Toxicity, Category 1B
<b>REPR. 1B</b>	Reproductive Toxicity, Category 1B
<b>RESP. SENS. 1</b>	Respiratory Sensitization Category 1,
<b>SKIN IRRIT. 2</b>	Skin Corrosion/Irritation, Category 2
<b>SKIN SENS. 1</b>	Skin Sensitization, Category 1
<b>STOT RE 2</b>	Specific Target Organ Toxicity – Repeated Exposure, Category 2
<b>STOT SE 3</b>	Specific Target Organ Toxicity – Single Exposure, Category 3, Respiratory Tract Irritation

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**Further Information**

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. However, all of the information in this document regarding the product remains unchanged and matches the product ordered.

Botanica Horticulture Pty Limited shall not be held liable for any damage resulting from handling or from contact with the above Product. This product is intended for **PLANT TISSUE CULTURE PURPOSES ONLY**. Our products may **NOT BE USED** as Drugs, Cosmetics, Agricultural or Pesticidal Products, Food Additives or as Household Chemicals.

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