



Material Safety Data Sheet

Format no: RDM/MSDS/MS-01

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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product Identifiers

Product Name

**Murashige & Skoog Medium (With Calcium Chloride, Vitamins, sucrose and Agar)
(RDM-MS-01)**

Brand

ReadyMED®

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified Uses

Plant tissue culture media, used for in vitro generation of plants.

1.3 Details of the supplier of the safety data sheet

Company

CHAITANYA AGRO BIOTECH PVT. LTD.

CIN NO.: U24210MH1995PTC095220S,

S. No. 120/2, Laxmi Nagar, Umbarnala Road, Malkapur-443101,

Dist.: Buldana (M.S.) India. Customer Care +91-8208650655

rdmsales@chaitanyagroupindia.com, mkt.cabt@chaitanyagroupindia.com,

www.chaitanyagroupindia.com

1.4 Emergency telephone number

Emergency Phone#

Local Emergency Service numbers where product is being used

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

No Significant Hazard

2.2 Label elements

No Significant Hazard

2.3 Other hazards

Combustible dusts: May form combustible dust concentrations in air. Dust may be irritating if inhaled.

SECTION 3: Composition/information on ingredients

3.1 Mixtures

Contain Harmful / Irritant material

Chemical name	CAS No.	EC. No.	Classification
Potassium nitrate	7757-79-1	231-818-8	Oxidizing solids
Calcium chloride	10043-52-4	233-140-8	Eye irritant
Manganese sulphate	10034-96-5	232-089-9	Aquatic chronic

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice	Consult physician with this safety data sheet
If inhaled	Move the person to fresh air; if person is unable to breath give artificial respiration and consult physician
Eye contact	Rinse immediately with plenty of water. Contact lenses should be removed. Seek medical attention if irritation or symptoms persist
In case of skin contact	Wash with soap and plenty of water in order to remove all contents from skin
If swallowed	Rinse mouth with water and consult physician.

4.2 Acute and delayed important symptoms and effects

Most important symptoms and effects, both acute and delayed

Inhalation	May cause irritation to respiratory system
Eye contact	May cause irritation to eyes
Skin contact	May cause irritation to skin
Ingestion	Ingestion may cause nausea and vomiting

4.3 Indication of any specific or immediate medical treatment needed

Remove the affected person from the source of contamination immediately. Transfer to hospital if there are burns or symptoms of poisoning. Seek medical attention if irritation or symptoms persist. If medical advice is needed, have product container or label at hand.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide/ Use extinguishing media appropriate to the surrounding fire conditions.

5.2 Special hazards arising from the substance or mixture

Combustible dusts: May form combustible dust concentrations in air. Avoid formation of dust. Do not allow undiluted product to be released to ground water, water course or sewage system.

5.3 Advice for fire fighters

Wear self-contained breathing apparatus for firefighting if necessary. Do not breathe dust or vapor. Wear suitable respiratory equipment when necessary.

5.4 Further information

No data available

SECTION 6: Accidental release measures

6.1 Personal protective equipment and emergency procedures

Use personal protective equipment as per the local authority or the firm. Avoid dust formation and breathing dust. Avoid breathing vapours, mist or gas. Ensure adequate ventilation in area of work. For personal protection see section 8.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up Pick up and arrange disposal without creating dust.

Sweep up and shovel. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling Provide appropriate exhaust ventilation at places where dust is formed.

Normal measures for preventive fire protection. For precautions see section 2.2. & 6.1

7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Hygroscopic, Moisture sensitive.

7.3 Specific end use(s) Apart from the uses mentioned in section 1.2

No other specific uses are stipulated

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Components with workplace control parameters and regulations

8.2 Exposure controls
Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment
Eye/face protection

Triple layered Surgical Face mask and Safety glasses with

Skin protection

side-shields.

Use of proper gowning/ aprons, Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product in accordance with good laboratory practices.

Body Protection

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place

Respiratory protection

Respiratory protection is not required. Where protection from nuisance levels of dusts is desired, use triple layered surgical type or type P1

Control of environmental exposure

Do not let product enter drains.

Other information

Stomach pains, vomiting, diarrhoea. Prolonged or repeated exposure may cause allergic reactions in certain sensitive individuals

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

a) Appearance

Form: powder Colour: Off white coloured

b) pH

4.00 – 6.00 at 25°C

c) Melting point/freezing point

No data available

d) Initial boiling point and boiling range

No data available

e) Flash point

No data available

f) Evaporation rate

No data available

g) Flammability (solid, gas)

No data available

h) Upper/lower flammability or explosive limits

No data available

i) Vapour pressure

No data available

j) Vapour density

No data available

k) Relative density

No data available

l) Water solubility

No data available

m) Partition coefficient: n-octanol/water

No data available

n) Auto-ignition temperature

No data available

o) Decomposition temperature

No data available

p) Viscosity

No data available

q) Explosive properties

No data available

r) Oxidizing properties

No data available

9.2 Other safety information

No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

No data available

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid

No data available

10.5 Incompatible materials

Strong oxidizing agents

10.6 Hazardous decomposition products
Hazardous decomposition products formed under fire conditions.

Nature of decomposition products not known. Hazardous decomposition products formed under fire conditions. - Carbon oxides, Hydrogen chloride gas, Sodium oxides
Other decomposition products - No data available
In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Based on available data, the classification criteria are not met. However, this product does contain substance(s) that are classified as hazardous. For more information, see Section 3 And 4

Skin corrosion/irritation

May cause irritation to skin.

Serious eye damage/eye irritation

May cause irritation to eyes

Respiratory or skin sensitisation

May cause allergic reactions in susceptible people

Germ cell mutagenicity

No mutagenic effects reported.

Carcinogenicity IARC:

No components of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity

No teratogenic effects reported.

Specific target organ toxicity - single exposure

May cause allergy or asthma symptoms or breathing difficulties if inhaled

Specific target organ toxicity - repeated exposure

No Significant Hazard

Aspiration hazard

No Significant Hazard

Additional Information RTECS

Avoid prolonged or repeated exposure. Delayed appearance of the complaints and development of hypersensitivity (difficult breathing, coughing, asthma) are possible

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

SECTION 12: Ecological information

12.1 Toxicity

Based on available data, the classification criteria are not met. However, this product does contain substance(s) that are classified as hazardous. For more information, see Section 3 and 4

12.2 Persistence and degradability

No data available

12.3 Bio-accumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Other adverse effects

No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated packaging

Dispose of as unused product.

SECTION 14: Transport information

Type of Material

Not dangerous goods

Special precautions for user

No data available

Environmental hazards

No

Section 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

International Chemical Weapons Convention (CWC)

Neither Banned Nor Restricted

Schedules of Toxic Chemicals and Precursors

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII)

Neither Banned Nor Restricted

Listed substance / Sunset Date

After the sunset date the use of this substance requires either an authorization or can only be used for exempted uses, e.g. use in scientific research and development which includes routine analytics or use as intermediate.

15.2 Chemical safety assessment

For this product a chemical safety assessment was be carried out

Section 16: Other Information

The information contained in the safety data sheet is to the best of our knowledge is accurate and true based on the research and development work carried out by ReadyMED, Chaitanya Agro Biotech, Malkapur, Maharashtra. The products are neither intended for any therapeutic use for animal or human nor for any other in-vivo applications. The ReadyMED products are only meant to be used for the laboratory, diagnostic, research, or further manufacturing purpose only. These technical outcomes should not be considered as the warranty of any kind expressed or implied, and no liability is accepted for infringement of any patent.



CHAITANYA AGRO BIOTECH PVT. LTD.
An ISO 11133:2014, ISO 13485:2016, ISO 9001:2015
CIN NO.: U24210MH1995PTC095220S
S. No. 120/2, Laxmi Nagar, Umbarnala Road,
Malkapur - 443101, Dist: Buldana (M.S.), India
Customer Care +91-8208650655
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