

RACEREADY COMPLETE Safety Data Sheet

Preparation Date 11-Aug-2017 Revision date 4-April-2024 Revision Number: 3

1. Identification of the Substance/Preparation and of the Company/Undertaking

Product identifier

Product Description: RACEREADY COMPLETE

Other means of identification

Product code 12U-GGU Registration number(s) 70506-334

Recommended use of the chemical and restrictions on use

Recommended use Solution for seed treatment.

Uses advised against

Non labeled activities

Details of the Supplier of the Safety Data Sheet

Supplier Address

Meristem Crop Performance 489 Village Park Dr., Powell, OH 43065 833-637-4783

Emergency telephone number

Company Phone Number 1-800-438-6071

Emergency telephone number Chemtrec: (800) 424-9300 (24hrs) or (703) 527-3887

Medical: Rocky Mountain Poison Control Center

(866) 673-6671 (24hrs)

2. Hazards Identification

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity - Dermal	Category 4
Acute toxicity - Inhalation (Vapors)	Category 4

Label elements

EMERGENCY OVERVIEW

WARNING

Hazard Statements

Harmful in contact with skin HARMFUL IF INHALED



Appearance Viscous Physical state Liquid Odor No characterisitic odor

Precautionary Statements - Prevention

RACEREADY F & I SEED TREATMENT

Wear protective gloves/protective clothing/eye protection/face protection Do not get in eyes, on skin, or on clothing Use only outdoors or in a well-ventilated area

IF ON SKIN: Wash with plenty of soap and water
Call a POISON CENTER or doctor if you feel unwell
Wash contaminated clothing before reuse
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
Call a POISON CENTER or doctor if you feel unwell

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards Not Otherwise Classified (HNOC)
OTHER INFORMATION

3. Composition/information on Ingredients

Chemical name	CAS No	Weight-%
Fludioxonil	131341-86-1	40

If CAS number is "proprietary", the specific chemical identity and percentage of composition has been withheld as a trade secret.

4. First aid measures

FIRST AID MEASURES

Eye contact If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes.

Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a

poison control center or doctor for treatment advice.

Skin contactTake off contaminated clothing. Rinse skin immediately with plenty of water for 15-20

minutes. Call a poison control center or doctor for treatment advice.

Inhalation Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give

artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or

doctor for further treatment advice.

Ingestion Call a physician or poison control center immediately. Never give anything by mouth to an

unconscious person. Do not induce vomiting without medical advice.

Most Important Symptoms and Effects, Both Acute and Delayed

Most Important Symptoms and

Effects

no data available.

Indication of Any Immediate Medical Attention and Special Treatment Needed

Notes to physician Treat symptomatically.

5. Fire-fighting measures

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media no data available.

Specific hazards arising from the chemical

No information available.

Explosion data

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal Precautions Avoid contact with skin and eyes. Use personal protective equipment. Wash thoroughly

after handling.

Environmental Precautions

Environmental precautions Consult a regulatory specialist to determine appropriate state or local reporting

requirements, for assistance in waste characterization and/or hazardous waste disposal

and other requirements listed in pertinent environmental permits.

Methods and material for containment and cleaning up

Methods for Clean-Up Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder,

sawdust). Sweep up and shovel into suitable containers for disposal.

7. Handling and Storage

Precautions for safe handling

Handling Do not eat, drink or smoke when using this product. Avoid contact with skin, eyes and

clothing. Wear personal protective equipment. Keep out of reach of children. Provide adequate ventilation. Wash thoroughly after handling. Remove and wash contaminated

clothing before re-use.

Conditions for safe storage, including any incompatibilities

Storage Keep containers tightly closed in a dry, cool and well-ventilated place.

incompatible materials Do not mix or allow contact with oxidizing agents as a hazardous chemical reaction may

occur.

8. Exposure Controls/Personal Protection

Exposure guidelines This product does not contain any hazardous materials with occupational exposure limits

established by the region specific regulatory bodies.

Engineering controls Investigate engineering techniques to reduce exposures. Local mechanical exhaust

ventilation is preferred. Consult ACGIH ventilation manual or NFPA Standard 91 for design

of exhaust systems.

Personal protective equipment

Eye/Face Protection

Skin protection

Respiratory protection

Where there is potential for eye contact have eye flushing equipment available. Use eye protection to avoid eye contact. If splashes are likely to occur, wear:. Goggles.

Chemical resistant gloves. Chemical resistant footwear plus socks. Coveralls.

Where airborne exposure is likely, use NIOSH approved respiratory protection equipment

appropriate to the material and/or its components. Full facepiece equipment is recommended and, if used, replaces need for face shield and/or chemical goggles. If exposures cannot be kept at a minimum with engineering controls, consult respirator manufacturer to determine appropriate type equipment for given application. Observe respirator use limitations specified by NIOSH or the manufacturer. For emergency and other conditions where there may be a potential for significant exposure, use an approved full face positive-pressure, self-contained breathing apparatus. Respiratory protection

programs must comply with 29 CFR 1910.134.

No characterisitic odor

General hygiene considerations

Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing before re-use. Wear suitable gloves and eye/face protection. Wash hands before breaks and immediately after handling the product.

9. Physical and Chemical Properties

Odor

Pensky Martin Closed Cup

Information on basic physical and chemical properties

Physical state Liquid Viscous Official State

color Off-white

PropertyVALUESRemarks/ • MethodpH7.3Approximately

Melting point/freezing point no data available

Boiling Point/RangeNo information availableFlash Point> 102 °C / > 215.6 °FEvaporation RateNo information availableFlammability (solid, gas)No information available

Flammability limit in air

Upper Flammability Limit No information available **Lower Flammability Limit** No information available No information available vapor pressure No information available **Vapor Density** Specific gravity 1.19 g/ml @ 20 C Miscible with water Water solubility Solubility in Other Solvents No information available Partition coefficient: n-octanol/waterNo information available **Autoignition temperature** no data available **Decomposition temperature** No information available Viscosity, kinematic No information available

Dynamic viscosity

Explosive properties

Oxidizing properties

No information available
No information available
No information available

OTHER INFORMATION

Softening pointNo information availablemolecular weightNo information availableVOC ContentNo information available

Liquid Density 10 lb/gal

10. Stability and Reactivity

Reactivity

None known

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

None under normal processing.

Conditions to avoid

Extremes of temperature and direct sunlight.

incompatible materials

Do not mix or allow contact with oxidizing agents as a hazardous chemical reaction may occur.

Hazardous decomposition products

Hydrogen chloride. Carbon oxides. Nitrogen oxides (NOx).

11. Toxicological Information

Information on Likely Routes of Exposure

Product information

Fludioxonil

Acute Oral LD50 = >5,000 mg/kg Acure dermal LD50 = >2,000 mg/kg Acute inhalation LC50 (4hr) = > 5.636 mg/L

Inhalation May cause irritation of respiratory tract. Harmful by inhalation.

Eye contact Contact with eyes may cause irritation.

Skin contact Substance may cause slight skin irritation.

Ingestion MAY BE HARMFUL IF SWALLOWED.

Information on Toxicological Effects

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization Did not cause sensitization.

Mutagenic effects no data available.

Carcinogenicity There are no known carcinogenic chemicals in this product.

Reproductive effects
STOT - Single Exposure
STOT - Repeated Exposure
Aspiration hazard
Not Available.
no data available.
No information available.

Numerical Measures of Toxicity - Product information

 LD50 Oral
 > 5000 mg/kg (rat)

 LD50 Dermal
 > 2000 mg/kg (rat)

 LC50 Inhalation
 > 22 mg/l (rat) (1 hr)

12. Ecological Information

ecotoxicity

Fludioxonil

Fish - Rainbow trout 96 hr LC50 = 0.47 ppm Green Algae 5 day EC50 = 0.087 ppm Invertebrate Daphnia magna 48 hr EC50 = 0.9 ppm Bird Bobwhite quail 14 day LD50 = >2000 mg/kg

Persistence/Degradability

no data available.

Bioaccumulation/ Accumulation

Does not bioaccumulate.

Other Adverse Effects

no data available

13. Disposal Considerations

Waste Treatment Methods

Waste Disposal Method Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide or rinsate is

a violation of Federal law. If the wastes cannot be disposed of by use or according to label instructions, contact your State Pesticide or Environmental Control Agency, or the

Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Contaminated packaging Refer to product label.

14. Transport Information

DOT When shipped domestically by highway in non-bulk containers this product can be shipped

as not regulated.

When shipped in bulk, by vessel, or internationally use the IMDG shipping description:

TDG When shipped in Canada domestic highway non-bulk this product can be shipped as Not

regulated as per TDG 1.45.1

IATA

UN/ID no. UN3082

Proper shipping name Environmentally hazardous substances, liquid, n.o.s (fludioxonil)

Hazard class 9
Packing group PG III

Description IMDG - Marine Pollutant

IMDG

UN/ID no. UN3082

Proper shipping name Environmentally hazardous substances, liquid, n.o.s (fludioxonil)

Hazard class 9
Packing group PG III

Environmental hazards IMDG - Marine Pollutant

15. Regulatory Information

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

signal word CAUTION

Keep out of Reach of Children. Harmful if absorbed through the skin. Causes moderate eye irritation. Toxic to fish and aquatic inverebrates.

International Inventories

USINV Not present
DSL/NDSL Not present
EINECS/ Not Present

ELINCS

ENCS Not Present
China Not Present
KECL Not Present

RACEREADY F & I SEED TREATMENT

PICCS Not Present
AICS Not Present
TSCA Not Present

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

CERCLA

Not applicable

CERCLA

RCRA

Pesticide Information

Component	FIFRA - Restricted Use	FIFRA - Pesticide Product Other Ingredients	FIFRA - Listing of Pesticide Chemicals	California Pesticides - Restricted Materials
Fludioxonil 131341-86-1 (40)			Х	

State Regulations

State Right-to-Know

Not applicable

International regulations

U.S. EPA Label information

EPA Pesticide registration number 70506-334

16. Other Information

NFPA HEALTH 1 flammability 1 Instability 0 Physical hazard -

Preparation Date11-Aug-2017Revision date02-Jan-2019

Revision Summary



Safety Data Sheet

Preparation Date 11-Apr-2016 Revision date 14-Mar-2024 Revision Number: 5

1. Identification of the Substance/Preparation and of the Company/Undertaking

Product identifier

Product Description: RACEREADY F & I SEED TREATMENT-

Other means of identification

Product code ST-001 Registration number(s) 70506-325

Recommended use of the chemical and restrictions on use

Recommended use Fungicides.

Uses advised against Activities contrary to label recommendation

Details of the Supplier of the Safety Data Sheet

Supplier Address UPL NA Inc.

630 Freedom Business Center

Suite 402

King of Prussia, PA 19406

Emergency telephone number

Company Phone Number 1-800-438-6071

Emergency telephone number Chemtrec: (800) 424-9300 (24hrs) or (703) 527-3887

Medical: Rocky Mountain Poison Control Center

(866) 673-6671 (24hrs)

2. Hazards Identification

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity - Dermal	Category 4
Acute toxicity - Inhalation (Vapors)	Category 4

Label elements

EMERGENCY OVERVIEW

WARNING

Hazard Statements

Harmful in contact with skin HARMFUL IF INHALED



Appearance light brown Physical state Liquid Odor faint

Precautionary Statements - Prevention

Wear protective gloves/protective clothing/eye protection/face protection

Do not get in eyes, on skin, or on clothing Use only outdoors or in a well-ventilated area

IF ON SKIN: Wash with plenty of soap and water
Call a POISON CENTER or doctor if you feel unwell
Wash contaminated clothing before reuse
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
Call a POISON CENTER or doctor if you feel unwell

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards Not Otherwise Classified (HNOC) OTHER INFORMATION

· May be harmful in contact with skin

3. Composition/information on Ingredients

Chemical name	CAS No	Weight-%
Metalaxyl	57837-19-1	28.98
Kaolinite, Hydrous Aluminum Silicate	1332-58-7	2.84

If CAS number is "proprietary", the specific chemical identity and percentage of composition has been withheld as a trade secret.

4. First aid measures

FIRST AID MEASURES

Eye contact Hold eye open and rinse slowly and gently with water for 15 - 20 minutes. Remove contact

lenses, if present, after 5 minutes, then continue rinsing eye. Call a poison control center or

doctor for treatment advice.

Skin contactWash off immediately with soap and plenty of water for at least 15 minutes while removing

all contaminated clothing and shoes. Call a poison control center or doctor for treatment

advice.

Inhalation Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give

artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or

doctor for further treatment advice.

Ingestion Call a physician or poison control center immediately. Never give anything by mouth to an

unconscious person. Do not induce vomiting without medical advice.

Most Important Symptoms and Effects, Both Acute and Delayed

Most Important Symptoms and

Effects

no data available.

Indication of Any Immediate Medical Attention and Special Treatment Needed

Notes to physician Treat symptomatically.

5. Fire-fighting measures

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media no data available.

Specific hazards arising from the chemical

No information available.

Explosion data

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal Precautions Provide adequate ventilation. Avoid contact with skin and eyes. Remove all sources of

ignition.

Environmental Precautions

Environmental precautionsConsult a regulatory specialist to determine appropriate state or local reporting

requirements, for assistance in waste characterization and/or hazardous waste disposal

and other requirements listed in pertinent environmental permits.

Methods and material for containment and cleaning up

Methods for Clean-Up Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder,

sawdust). Sweep up and shovel into suitable containers for disposal.

7. Handling and Storage

Precautions for safe handling

Handling Wear personal protective equipment. Do not eat, drink or smoke when using this product.

Wash thoroughly after handling. Keep out of reach of children.

Conditions for safe storage, including any incompatibilities

Storage Store in an area where cross-contamination with pesticides, fertilizers, food or feed could

not occur. Keep in a dry, cool and well-ventilated place.

incompatible materials Incompatible with oxidizing agents. Strong acids, Strong bases,

8. Exposure Controls/Personal Protection

Exposure guidelines

Chemical name	ACGIH TLV	OSHA PEL
Kaolinite, Hydrous Aluminum Silicate	TWA: 2 mg/m ³ particulate	TWA: 15 mg/m³ total dust TWA: 5 mg/m³ respirable fraction
	matter containing no	(vacated) TWA: 10 mg/m³ total dust (vacated) TWA: 5 mg/m³ respirable
	asbestos and <1%	fraction
	crystalline silica, respirable	
	fraction	

Engineering controls Investigate engineering techniques to reduce exposures. Local mechanical exhaust

ventilation is preferred. Consult ACGIH ventilation manual or NFPA Standard 91 for design

of exhaust systems.

Personal protective equipment

Eye/Face Protection Avoid contact with eyes. Where there is potential for eye contact have eye flushing

equipment available. Use eye protection to avoid eye contact.

Skin protection Wear protective gloves/clothing. Chemical resistant gloves. Chemical resistant footwear

plus socks.

Respiratory protection Where airborne exposure is likely, use NIOSH approved respiratory protection equipment

appropriate to the material and/or its components. Full facepiece equipment is recommended and, if used, replaces need for face shield and/or chemical goggles. If exposures cannot be kept at a minimum with engineering controls, consult respirator

faint

manufacturer to determine appropriate type equipment for given application. Observe respirator use limitations specified by NIOSH or the manufacturer. For emergency and other conditions where there may be a potential for significant exposure, use an approved full face positive-pressure, self-contained breathing apparatus. Respiratory protection programs must comply with 29 CFR 1910.134.

Odor

General hygiene considerations

Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing before re-use. Wear suitable gloves and eye/face protection. Wash hands before breaks and immediately after handling the product.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Physical state I iauid light brown **Appearance**

color Tan

VALUES Remarks/ • Method Property

(1% aq) pН 7 7

Melting point/freezing point no data available Boiling Point/Range No information available

Flash Point >100 C/ >212 F **Evaporation Rate** No information available

Flammability (solid, gas) No information available

Flammability limit in air

Upper Flammability Limit No information available **Lower Flammability Limit** No information available vapor pressure No information available **Vapor Density** No information available

Specific gravity 1.094 g/cm3

Water solubility No information available Solubility in Other Solvents No information available Partition coefficient: n-octanol/waterNo information available no data available **Autoignition temperature Decomposition temperature** No information available

Viscosity, kinematic No information available **Dynamic viscosity** No information available **Explosive properties** No information available **Oxidizing properties** No information available

OTHER INFORMATION

No information available Softening point molecular weight No information available No information available **VOC Content**

9.13 lb/gal **Liquid Density**

10. Stability and Reactivity

Reactivity

no data available

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

None under normal processing.

Conditions to avoid

Extremes of temperature and direct sunlight.

incompatible materials

Incompatible with oxidizing agents. Strong acids, Strong bases,

Hazardous decomposition products

Carbon oxides. Nitrogen oxides (NOx).

11. Toxicological Information

Information on Likely Routes of Exposure

Product information Metalaxyl 317 FS:

Oral LD50 (rat) >2,300 mg/kg Dermal LD50 (rabbit) >2,000 mg/kg Inhalation LC50 (rat) > 5.164 (4hr) mg/L

Moderate eve and skin irritation

May cause irritation of respiratory tract. Inhalation

Eye contact May cause slight irritation.

Skin contact May cause irritation.

Ingestion MAY BE HARMFUL IF SWALLOWED.

Information on Toxicological Effects

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

No information available. Sensitization

Mutagenic effects no data available.

Carcinogenicity The information below indicates whether any agency has listed any ingredient as a

carcinogen.

Not Available. **Reproductive effects** STOT - Single Exposure no data available. STOT - Repeated Exposure no data available.

Aspiration hazard No information available.

Numerical Measures of Toxicity - Product information

> 2300 mg/kg LD50 Oral **LD50 Dermal** > 2000 mg/kg > 20 mg/l LC50 Inhalation

12. Ecological Information

ecotoxicity

Metalaxyl **FISH**

Rainbow trout = 96 hr LC50 130-132 mg/L

AQUATIC INVERTEBRATES

Daphnia magna = LC50 28-121 mg/L

Persistence/Degradability

no data available.

Bioaccumulation/ Accumulation

Bioaccumulative potential.

Chemical name	Log Pow
Metalaxyl 57837-19-1	log Pow <3

Other Adverse Effects

no data available

13. Disposal Considerations

Waste Treatment Methods

Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide or rinsate is **Waste Disposal Method**

a violation of Federal law. If the wastes cannot be disposed of by use or according to label instructions, contact your State Pesticide or Environmental Control Agency, or the

Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Contaminated packaging Refer to product label.

14. Transport Information

DOT

NOT REGULATED

IATA

NOT REGULATED

IMDG

NOT REGULATED

15. Regulatory Information

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

CAUTION signal word

Keep out of Reach of Children. Harmful if swallowed or absorbed through the skin.

International Inventories

USINV Not present DSL/NDSL Not present EINECS/ Not Present

ELINCS

ENCS Not Present China Not Present **KECL** Not Present **PICCS** Not Present Not Present **AICS**

RACEREADY F & I SEED TREATMENT

TSCA Not Present

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

CERCLA

Not applicable

CERCLA

RCRA

Pesticide Information

State Regulations

State Right-to-Know

Not applicable

International regulations

U.S. EPA Label information

EPA Pesticide registration number 70506-325

16. Other Information

NFPA HEALTH 2 flammability 1 Instability 0 Physical hazard -

Preparation Date11-Apr-2016Revision date02-Jan-2019

Revision Summary



Safety Data Sheet

Preparation Date 12-Jun-2017 Revision date 14-Mar-2024 Revision Number: 3

1. Identification of the Substance/Preparation and of the Company/Undertaking

Product identifier

Product Description: RACEREADY F&I SEED TREATMENT

Other means of identification

 Product code
 RD-20170612C

 UN/ID no.
 UN3082

 Registration number(s)
 70506-341

Recommended use of the chemical and restrictions on use

Recommended use Solution for seed treatment.

Uses advised against Activities contrary to label recommendation

Details of the Supplier of the Safety Data Sheet

Supplier Address UPL NA Inc.

630 Freedom Business Center

Suite 402

King of Prussia, PA 19406

Emergency telephone number

Company Phone Number 1-800-438-6071

Emergency telephone number Chemtrec: (800) 424-9300 (24hrs) or (703) 527-3887

Medical: Rocky Mountain Poison Control Center

(866) 673-6671 (24hrs)

2. Hazards Identification

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity - Dermal	Category 4
Acute toxicity - Inhalation (Gases)	Category 2
Acute toxicity - Inhalation (Vapors)	Category 3
Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Skin sensitization	Category 1
Germ cell mutagenicity	Category 2

Label elements

EMERGENCY OVERVIEW

DANGER

Hazard Statements

Harmful in contact with skin Fatal if inhaled May cause an allergic skin reaction Suspected of causing genetic defects



Appearance liquid Physical state Liquid suspension Odor no data available

Precautionary Statements - Prevention

Do not handle until all safety precautions have been read and understood Wear cold insulating gloves/face shield/eye protection Do not breathe dust/fume/gas/mist/vapors/spray Use only outdoors or in a well-ventilated area In case of inadequate ventilation wear respiratory protection Contaminated work clothing should not be allowed out of the workplace Wear protective gloves

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention
IF ON SKIN: Wash with plenty of soap and water
Call a POISON CENTER or doctor if you feel unwell
Wash contaminated clothing before reuse
If skin irritation or rash occurs: Get medical advice/attention
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
Immediately call a POISON CENTER or doctor/physician

Precautionary Statements - Storage

Store locked up

Store in a well-ventilated place. Keep container tightly closed

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards Not Otherwise Classified (HNOC) OTHER INFORMATION

- Very toxic to aquatic life with long lasting effects
- · Very toxic to aquatic life

3. Composition/information on Ingredients

Chemical name	CAS No	Weight-%
Thiophanate-methyl	23564-05-8	46.2
1,2-Benziosothiazolin-3-one (Proxel	2634-33-5	0.024
GXL)		

If CAS number is "proprietary", the specific chemical identity and percentage of composition has been withheld as a trade secret.

4. First aid measures

FIRST AID MEASURES

Eye contact Hold eye open and rinse slowly and gently with water for 15 - 20 minutes. Remove contact

lenses, if present, after 5 minutes, then continue rinsing eye. Call a poison control center or

doctor for treatment advice.

Skin contact Wash off immediately with plenty of water for at least 15 minutes. Call a poison control

center or doctor for treatment advice.

RACEREADY F & I SEED TREATMENT

Inhalation Move to fresh air in case of accidental inhalation of vapors or decomposition products. If

symptoms persist, call a physician. Immediate medical attention is required. Call a

physician or poison control center immediately. Toxic by inhalation.

Ingestion Do not induce vomiting without medical advice. Never give anything by mouth to an

unconscious person. Call a physician. Clean mouth with water and drink afterwards plenty

of water afterwards.

Most Important Symptoms and Effects, Both Acute and Delayed

Most Important Symptoms and

no data available.

Effects

Indication of Any Immediate Medical Attention and Special Treatment Needed

Notes to physician Treat symptomatically.

5. Fire-fighting measures

Suitable extinguishing media

Carbon dioxide (CO2).

Use:. Dry chemical. Water spray. alcohol-resistant foam.

Unsuitable extinguishing media no data available.

Specific hazards arising from the chemical

Thermal decomposition can lead to release of irritating gases and vapours.

Hazardous combustion products No information available.

Explosion data

Protective equipment and precautions for firefighters

Use personal protective equipment. As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal Precautions Avoid contact with skin and eyes. Wear protective gloves/protective clothing and eye/face

protection. Wash thoroughly after handling.

Environmental Precautions

Environmental precautions Consult a regulatory specialist to determine appropriate state or local reporting

requirements, for assistance in waste characterization and/or hazardous waste disposal

and other requirements listed in pertinent environmental permits.

Methods and material for containment and cleaning up

Methods for Clean-Up Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder,

sawdust). Sweep up and shovel into suitable containers for disposal.

7. Handling and Storage

Precautions for safe handling

Handling Wear personal protective equipment. Avoid contact with skin and eyes. Do not eat, drink or

smoke when using this product. Keep out of reach of children. Wash thoroughly after

handling.

Conditions for safe storage, including any incompatibilities

Storage Keep out of the reach of children. Keep in a dry, cool and well-ventilated place.

incompatible materials Strong oxidizing agents.

8. Exposure Controls/Personal Protection

Exposure guidelines This product does not contain any hazardous materials with occupational exposure limits

established by the region specific regulatory bodies.

Engineering controls Investigate engineering techniques to reduce exposures. Local mechanical exhaust

ventilation is preferred. Consult ACGIH ventilation manual or NFPA Standard 91 for design

of exhaust systems.

Personal protective equipment

Eye/Face Protection Use eye protection to avoid eye contact. Where there is potential for eye contact have eye

flushing equipment available. Safety glasses with side-shields.

Skin protection Wear protective gloves/clothing. Socks and footwear.

Respiratory protection Where airborne exposure is likely, use NIOSH approved respiratory protection equipment

appropriate to the material and/or its components. Full facepiece equipment is recommended and, if used, replaces need for face shield and/or chemical goggles. If exposures cannot be kept at a minimum with engineering controls, consult respirator manufacturer to determine appropriate type equipment for given application. Observe respirator use limitations specified by NIOSH or the manufacturer. For emergency and other conditions where there may be a potential for significant exposure, use an approved full face positive-pressure, self-contained breathing apparatus. Respiratory protection

programs must comply with 29 CFR 1910.134.

General hygiene considerations

Do not eat, drink or smoke when using this product. Wear suitable gloves and eye/face protection. Wash hands before breaks and immediately after handling the product.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Physical state Liquid suspension

AppearanceliquidOdorno data available

color Off-white to Tan

PropertyVALUESRemarks/ • MethodpH6Approximately

pH 6 Approx
Melting point/freezing point no data available
Boiling Point/Range No information available

Flash Point No information available No information available Evaporation Rate No information available No information available Flammability (solid, gas) No information available

Flammability limit in air

Upper Flammability Limit
Lower Flammability Limit
vapor pressure
Vapor Density

No information available
No information available
No information available
No information available

Specific gravity 1.220

Water solubility

Solubility in Other Solvents

Partition coefficient: n-octanol/waterNo information available
Autoignition temperature

Decomposition temperature

Viscosity, kinematic

No information available
No information available
No information available

Dynamic viscosity 350-500 cps

Explosive propertiesNo information available

No information available Oxidizing properties

OTHER INFORMATION

Softening point No information available molecular weight No information available **VOC Content** No information available No information available **Liquid Density**

10. Stability and Reactivity

Reactivity

no data available

Chemical stability

Stable under normal conditions. Hazardous polymerisation does not occur.

Possibility of hazardous reactions

None under normal processing.

Hazardous polymerisation does not occur. **Hazardous polymerization**

Conditions to avoid

No information available.

incompatible materials

Strong oxidizing agents.

Hazardous decomposition products

Carbon oxides.

11. Toxicological Information

Information on Likely Routes of Exposure

The toxicological data presented is for a formulated product with similar composition Single **Product information**

exposure studies indicate:

Oral: Practically non-toxic to rats (LD50 >5,000 mg/kg)

Dermal: No more than slightly toxic to rabbits (LD50 >2,000 mg/kg)

Inhalation: SLightly toxic to rats (4 hr LC50 1.8 mg/l)

Skin Irritation: Non-irritating to rabbits Eve Irritation: Non-irritating to rabbits

Skin allergy was observed in guinea pigs following repeated exposure. Repeated or long-term oral administration produced effects on the thyroid, liver or kidneys in rats, mice and dogs. An increased incidence of liver tumors was observed in mice and thyroid tumors

were observed in male rats following long-term oral exposure.

No effects were seen on the ability of male or female rats to reproduce when exposed orally for 2 successive generations. No birth defects were observed in the offspring of rats exposed orally during pregnancy. In rabbits, developmental effects were noted only at maternally toxic doses. No genetic changes were observed in tests using animal cells.

Polyglycol

Repeated exposure of rats to aerosol of some block polymers produced an inflammatory response and slight fibrosis in the lung. Long-term dietary administration of a block polymer to dogs produced no adverse effects. Some block polymers have produced genetic

changes in tests using basteria or animal cells.

Single exposure studies indicate that this material is practically non-toxic if swallowed (mouse LD50 >15,000 mg/kg) or absorbed through skin (rabbit LD50 2,000 mg/kg) moderately toxic if inhaled (rat 4 hr LC50 0.1-0.34 mg/l) and practically non irritating to

rabbit eyes (10% aqueous solution).

HARMFUL IF INHALED. Inhalation

Eve contact May cause irritation.

Skin contact May be harmful if absorbed through the skin.

Ingestion MAY BE HARMFUL IF SWALLOWED.

Information on Toxicological Effects

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization No information available.

Mutagenic effects no data available.

Carcinogenicity There are no known carcinogenic chemicals in this product.

Reproductive effects
STOT - Single Exposure
STOT - Repeated Exposure
Not Available.
no data available.
no data available.

Chronic toxicity Avoid repeated exposure. **Aspiration hazard** No information available.

Numerical Measures of Toxicity - Product information

The following values are calculated based on chapter 3.1 of the GHS document .

 LD50 Oral
 5000 mg/kg (rat)

 LD50 Dermal
 > 2000 mg/kg (rat)

 LC50 Inhalation
 Inhalation LC50 7.2 mg/l

12. Ecological Information

ecotoxicity

Thiophanate methyl
Carp 96 hr LC50 = >100 mg/L
Fiddler crab 96 hr LC50 = >560 mg/L
Bluegill 96 hr LC50 = 15.8 mg/L
Daphnid 48 hr EC50 = 15.6 mg/L
Shrimp 96 hr LC50 = 25.1 mg/L
Trout 96 hr LC50 - 2.2 mg/L
Oyster 96 hr LC50 = 4.6 ppm
Highly toxic to catfish

16.64% of the mixture consists of components(s) of unknown hazards to the aquatic environment

Persistence/Degradability

no data available.

Bioaccumulation/ Accumulation

Bioaccumulative potential.

Chemical name	Log Pow
1,2-Benziosothiazolin-3-one (Proxel GXL)	1.3
2634-33-5	

Other Adverse Effects

no data available

13. Disposal Considerations

RACEREADY F & I SEED TREATMENT

Waste Treatment Methods

Waste Disposal Method Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide or rinsate is

a violation of Federal law. If the wastes cannot be disposed of by use or according to label

instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Contaminated packaging Refer to product label.

14. Transport Information

<u>Poot</u> Packages which contain an amount equal to or exceeding the RQ value of the technical

ingredient must be labeled with the following shipping description:

UN/ID no. UN3082

Proper shipping name Environmentally hazardous substance, liquid, n.o.s (Thiophanate methyl)

Hazard class 9 Packing group PG III

Reportable Quantity (RQ): 10 lbs (Thiophanate methyl)

IATA

UN/ID no. UN3082

Proper shipping name Environmentally hazardous substances, liquid, n.o.s (Thiophanate methyl)

Hazard class 9
Packing group PG III

<u>IMDG</u>

UN/ID no. UN3082

Proper shipping name Environmentally hazardous substances, liquid, n.o.s (Thiophanate-methyl)

Hazard class 9
Packing group PG III

Environmental hazards This product contains a chemical which is listed as a marine pollutant according to

IMDG/IMO

15. Regulatory Information

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

signal word CAUTION

Ventilation Control PESTICIDE APPLICATORS & WORKERS THESE WORKERS MUST REFER TO

PRODUCT LABELING AND DIRECTIONS FOR USE IN ACCORDANCE WITH EPA

WORKER PROTECTION STANDARD 40 CFR PART 170.

Keep out of Reach of Children. Harmful if swallowed. Harmful if inhaled or absorbed through skin.

International Inventories

USINV Not present Not present EINECS/ Not Present

ELINCS

ENCS Not Present

RACEREADY F & I SEED TREATMENT

China Not Present **KECL** Not Present **PICCS** Not Present **AICS** Not Present **TSCA** Not Present

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

0

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

CERCLA

Not applicable

Chemical name	RQ	CERCLA EHS RQs	RQ
Thiophanate-methyl	10 lb		RQ 10 lb final RQ RQ 4.54 kg final
23564-05-8			RQ

CERCLA

Component	RQ
Thiophanate-methyl	10 lb
23564-05-8 (46.2)	

SARA Product RQ

RCRA

Component	RCRA - D Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
Thiophanate-methyl			U409
23564-05-8 (46.2)			

Pesticide Information

State Regulations

Component	California Prop. 65	Non-additive, corrosive chemical type
Thiophanate-methyl	Female Reproductive	Female Reproductive
23564-05-8 (46.2)	Male Reproductive	Male Reproductive

State Right-to-Know

Not applicable

International regulations

U.S. EPA Label information

EPA Pesticide registration number 70506-341

16. Other Information

NFPA HEALTH 3 flammability 0 Instability 0 Physical hazard -

Preparation Date 12-Jun-2017 **Revision date** 02-Jan-2019

Revision Summary



Safety Data Sheet

Odor sweet

Preparation Date 17-Aug-2016 Revision date 14-Mar-2024 Revision Number: 4

1. Identification of the Substance/Preparation and of the Company/Undertaking

Product identifier

Product Description: RACEREADY F&I SEED TREATMENT

Other means of identification

Product code 12U-327 Registration number(s) 70506-327

Recommended use of the chemical and restrictions on use

Recommended use Insecticide.

Uses advised against

Non labeled activities Activities contrary to label recommendation

Details of the Supplier of the Safety Data Sheet

Supplier Address

UPL NA Inc.

630 Freedom Business Center

Suite 402

King of Prussia, PA 19406

Emergency telephone number

Company Phone Number 215-715-2174

Emergency telephone number Chemtrec: (800) 424-9300 (24hrs) or (703) 527-3887

Medical: Rocky Mountain Poison Control Center

(866) 673-6671 (24hrs)

2. Hazards Identification

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Skin sensitization Category 1

Label elements

EMERGENCY OVERVIEW

WARNING

Hazard Statements

May cause an allergic skin reaction



Appearance no data available Physical state Liquid

Precautionary Statements - Prevention

Do not get in eyes, on skin, or on clothing

Contaminated work clothing should not be allowed out of the workplace

Wear protective gloves

IF ON SKIN: Wash with plenty of soap and water If skin irritation or rash occurs: Get medical advice/attention Wash contaminated clothing before reuse

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards Not Otherwise Classified (HNOC) OTHER INFORMATION

- · Very toxic to aquatic life with long lasting effects
- · Very toxic to aquatic life

3. Composition/information on Ingredients

Chemical name	CAS No	Weight-%
Imidacloprid	138261-41-3	48.7
1,2-Benziosothiazolin-3-one (Proxel	2634-33-5	0.1
GXL)		
Glycerine	56-81-5	10

If CAS number is "proprietary", the specific chemical identity and percentage of composition has been withheld as a trade secret.

4. First aid measures

FIRST AID MEASURES

Eye contact Immediately flush with plenty of water. After initial flushing, remove any contact lenses and

continue flushing for at least 15 minutes. Call a poison control center or doctor for treatment

advice.

Skin contact Wash off immediately with plenty of water for at least 15 minutes. Call a poison control

center or doctor for treatment advice.

Inhalation Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give

artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or

doctor for further treatment advice.

Ingestion Call a physician or poison control center immediately. Do not induce vomiting without

medical advice. Never give anything by mouth to an unconscious person.

Protection of First-aidersUse personal protective equipment.

Most Important Symptoms and Effects, Both Acute and Delayed

Most Important Symptoms and

no data available.

Effects

Indication of Any Immediate Medical Attention and Special Treatment Needed

Notes to physician Treat symptomatically.

5. Fire-fighting measures

Suitable extinguishing media

Carbon dioxide (CO2).

Use: Dry chemical. Water spray. alcohol-resistant foam.

Unsuitable extinguishing media no data available.

Specific hazards arising from the chemical

Keep product and empty container away from heat and sources of ignition. Risk of ignition.

Hazardous combustion products Hydrogen chloride. Nitrous oxides.

Explosion data

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal Precautions Use personal protective equipment. Avoid contact with skin and eyes. Wash thoroughly

after handling.

Environmental Precautions

Environmental precautions Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

Methods and material for containment and cleaning up

Methods for Clean-UpSoak up with inert absorbent material. Pick up and transfer to properly labelled containers.

7. Handling and Storage

Precautions for safe handling

Handling Wear personal protective equipment. Do not breathe vapours or spray mist. Avoid contact

with skin and eyes. Provide adequate ventilation. Do not eat, drink or smoke when using

this product. Keep out of reach of children. Wash thoroughly after handling.

Conditions for safe storage, including any incompatibilities

Storage Keep containers tightly closed in a cool, well-ventilated place. Keep away from heat. Protect

from light. Keep in properly labelled containers.

incompatible materials Potassium permanganate.

8. Exposure Controls/Personal Protection

Exposure guidelines

Chemical name	ACGIH TLV	OSHA PEL
Glycerine		TWA: 15 mg/m³ mist, total particulate TWA: 5 mg/m³ mist, respirable
		fraction
		(vacated) TWA: 10 mg/m³ mist, total particulate (vacated) TWA: 5 mg/m³
		mist, respirable fraction

Engineering controls Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

Eye/Face Protection Where there is potential for eye contact have eye flushing equipment available. Use eye

protection to avoid eye contact. Safety glasses with side-shields.

Skin protection Long sleeved clothing. Chemical resistant apron. Protective gloves. Chemical resistant

footwear plus socks.

Respiratory protection Use only with adequate ventilation. Where airborne exposure is likely, use NIOSH

approved respiratory protection equipment appropriate to the material and/or its components. Full facepiece equipment is recommended and, if used, replaces need for face shield and/or chemical goggles. If exposures cannot be kept at a minimum with engineering controls, consult respirator manufacturer to determine appropriate type

equipment for given application. Observe respirator use limitations specified by NIOSH or the manufacturer. For emergency and other conditions where there may be a potential for significant exposure, use an approved full face positive-pressure, self-contained breathing apparatus. Respiratory protection programs must comply with 29 CFR 1910.134.

General hygiene considerations

Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing before re-use. Wear suitable gloves and eye/face protection. Wash hands and face before breaks and immediately after handling the product.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Physical state Liquid

Appearance no data available Odor sweet

color white

Property VALUES Remarks/ • Method

pH 5.71 (1% aq)

Melting point/freezing point

Boiling Point/Range

Flash Point

Evaporation Rate

Flammability (solid, gas)

no data available
No information available
No information available
No information available

Flammability limit in air

Upper Flammability Limit
Lower Flammability Limit
vapor pressure
Vapor Density

No information available
No information available
No information available
No information available

Specific gravity 1.250 g/ml

Water solubility

Solubility in Other Solvents

Partition coefficient: n-octanol/waterNo information available
Autoignition temperature

Decomposition temperature

Viscosity, kinematic

Dynamic viscosity

No information available
no data available
No information available
No information available
255.3 cP @ 20 C

Explosive properties

Oxidizing properties

No information available
No information available

OTHER INFORMATION

Softening point No information available molecular weight No information available VOC Content No information available

Liquid Density 10.43 lb/gal

10. Stability and Reactivity

Reactivity

no data available

Chemical stability

Stable under normal conditions. Hazardous polymerisation does not occur.

Possibility of hazardous reactions

None under normal processing.

Hazardous polymerization Hazardous polymerisation does not occur.

Conditions to avoid

Heating in air.

incompatible materials

Potassium permanganate.

Hazardous decomposition products

Carbon oxides.

11. Toxicological Information

Information on Likely Routes of Exposure

Product information

Imidacloprid formulation 48.7% = Acute oral LD50 = 990 mg/kg Acute dermal LD50 = >2000 mg/kg Acute inhalation LC50 (4hr) = >5.971 mg/L

Inhalation May cause irritation of respiratory tract.

Eye contact Moderately irritating to the eyes.

Skin contact May be harmful if absorbed through the skin.

HARMFUL IF SWALLOWED. Ingestion

Component Information

for Imidacloprid:

Acute oral LD50 - 380 mg/kg Acute dermal LD50 - >5000 mg/kg

Information on Toxicological Effects

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

No information available. Sensitization no data available.

Mutagenic effects

Carcinogenicity Imidacloprid (A.I.) was not considered carcinogenic in rats or mice in oncogenicity studies. Reproduction studies indicated that Imidacloprid is not a reproductive toxicant. Mutagenicity

studies noted no mutagenic or genotoxic effects in in vitro and in vivo tests.

Developmental effects were observed at doses that caused material toxicity in rats and

rabbits. It is not considered a promary developmental toxicant.

Imidacloprid neurotoxicity tests showed slight behavioral and activity changes only at the highest dose in rats. Neural tissues showed no correlating morphological changes.

Not Available. Reproductive effects STOT - Single Exposure no data available. STOT - Repeated Exposure no data available.

Chronic toxicity Avoid repeated exposure. No information available. **Aspiration hazard**

Numerical Measures of Toxicity - No information available

LD50 Oral 990 mg/kg > 2000 mg/kg **LD50 Dermal** LC50 Inhalation > 23.88 mg/l

12. Ecological Information

ecotoxicity

No information available

Persistence/Degradability

no data available.

Bioaccumulation/ Accumulation

Bioaccumulative potential.

Chemical name	Log Pow
1,2-Benziosothiazolin-3-one (Proxel GXL) 2634-33-5	1.3
Glycerine 56-81-5	-1.76

Other Adverse Effects

no data available

13. Disposal Considerations

Waste Treatment Methods

Waste Disposal Method Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide or rinsate is

a violation of Federal law. If the wastes cannot be disposed of by use or according to label instructions, contact your State Pesticide or Environmental Control Agency, or the

Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Contaminated packaging Refer to product label.

14. Transport Information

DOT

NOT REGULATED

<u>TDG</u>

NOT REGULATED

IATA

NOT REGULATED

IMDG

NOT REGULATED

15. Regulatory Information

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

signal word CAUTION

Keep out of Reach of Children. Causes moderate eye irritation. Harmful if swallowed or absorbed through the skin. This pesticide is highly toxic to bees, birds, and aquatic invertebrates.

International Inventories

USINV Not present DSL/NDSL Not present EINECS/ Not Present

ELINCS

ENCS Not Present
China Not Present
KECL Not Present
PICCS Not Present
AICS Not Present
TSCA Not Present
Not Present

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

CERCLA

Not applicable

CERCLA

<u>RCRA</u>

Pesticide Information

State Regulations

State Right-to-Know

Not applicable

International regulations

U.S. EPA Label information

EPA Pesticide registration number 70506-327

16. Other Information

NFPA HEALTH 3 flammability 2 Instability 0 Physical hazard -

Preparation Date 17-Aug-2016
Revision date 02-Jan-2019
Revision Summary

Update logo Update section 1 Update Section 16***

Disclaimer

UPL NA Inc. believes that the information and recommendations container herein (including data and statements) are accurate as of the date hereof. NO WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE, WARRANTY OF MERCHANTABILITY, OR ANY OTHER WARRANTY, EXPRESSED OR IMPLIED, IS MADE CONCERNING THE INFORMATION PROVIDED HEREIN. The information provided herein relates only to the specific product designated and

may not be valid where such product is used in combination with other materials or in any process. Further, since the conditions and methods of use are beyond the control of UPL NA Inc. and UPL NA Inc. expressly disclaims any and all liability as to any results obtained or arising from any use of the product or reliance on such information.

End of SDS

Page 30/30



MERISTEM CROP PERFORMANCE

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

Date of Issue: 04/4/2024 Version: 1.0

SECTION 1: IDENTIFICATION

1.1. Product Identifier

Product Form: Mixture

Product Name: RACEREADY COMPLETE

Product Code: 8020, 8030

1.2. Intended Use of the Product

Seed treatment

1.3. Name, Address, and Telephone of the Responsible Party

Meristem Crop Performance 489 Village Park Dr., Powell, OH 43065 833-637-4783

1.4. Emergency Telephone Number

Emergency Number: +1 800-424-9300

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the Substance or Mixture

GHS-US/CA Classification

Not classified

2.2. Label Elements

GHS-US/CA Labeling

No labeling applicable according to 29 CFR 1910.1200 and the Hazardous Products Regulations (HPR) SOR/2015-17.

2.3. Other Hazards

Exposure may aggravate pre-existing eye, skin, or respiratory conditions.

2.4. Unknown Acute Toxicity (GHS-US/CA)

No additional information available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substance

Not applicable

3.2. Mixture

Name	Synonyms	Product Identifier	% *	GHS Ingredient Classification
Bradyrhizobium spp.	Nitrogen fixing bacteria	None	80	Not classified

Full text of H-statements: see section 16

SECTION 4: FIRST AID MEASURES

4.1. Description of First-aid Measures

General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

Inhalation: When symptoms occur: go into open air and ventilate suspected area. Obtain medical attention if breathing difficulty persists.

Skin Contact: Remove contaminated clothing. Wash with plenty of soap and water. Obtain medical attention if irritation develops or persists.

Eye Contact: Rinse cautiously with water for at least 5 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if irritation develops or persists.

Ingestion: Rinse mouth. Do NOT induce vomiting. Obtain medical attention.

4.2. Most Important Symptoms and Effects Both Acute and Delayed

General: Not expected to present a significant hazard under anticipated conditions of normal use.

Inhalation: Prolonged exposure may cause irritation.

04/04//2024 (Issue date) EN (English US) 1/5

^{*}Percentages are listed in weight by weight percentage (w/w%) for liquid and solid ingredients. Gas ingredients are listed in volume by volume percentage (v/v%).

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015)

Skin Contact: Prolonged exposure may cause skin irritation.

Eye Contact: May cause slight irritation to eyes. **Ingestion:** Ingestion may cause adverse effects.

Chronic Symptoms: None expected under normal conditions of use.

4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand.

SECTION 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing Media

Suitable Extinguishing Media: Use extinguishing media suitable for surrounding type of fire.

Unsuitable Extinguishing Media: None known.

5.2. Special Hazards Arising From the Substance or Mixture

Fire Hazard: Not flammable.

Explosion Hazard: Product is not explosive.

Reactivity: Hazardous reactions will not occur under normal conditions.

5.3. Advice for Firefighters

Precautionary Measures Fire: Exercise caution when fighting any fire.

Firefighting Instructions: Use water spray or fog for cooling exposed containers.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

Hazardous Combustion Products: None known.

5.4. Reference to Other Sections

Refer to Section 9 for flammability properties.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Avoid prolonged contact with eyes, skin and clothing. Avoid breathing (vapor, mist, spray).

6.1.1. For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protective equipment (PPE).

Emergency Procedures: No special measures required.

6.1.2. For Emergency Personnel

Protective Equipment: Equip cleanup crew with proper protection.

Emergency Procedures: Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit. Ventilate area.

6.2. Environmental Precautions

Prevent unintended entry to sewers and public waters, especially in large quantities.

6.3. Methods and Materials for Containment and Cleaning Up

For Containment: Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

Methods for Cleaning Up: Clean up any spills as soon as possible, using an absorbent material to collect it. Transfer spilled material to a suitable container for disposal. Contact competent authorities after a spill.

6.4. Reference to Other Sections

See Section 8 for exposure controls and personal protection and Section 13 for disposal considerations.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for Safe Handling

Precautions for Safe Handling: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Avoid prolonged contact with eyes, skin and clothing. Avoid breathing vapors, mist, spray.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures.

7.2. Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures: Comply with applicable regulations.

Storage Conditions: Keep container closed when not in use. Store in a dry, cool place. Keep/Store away from Extremely high or low temperatures, direct sunlight.

Incompatible Materials: None known.

7.3. Specific End Use(s)

Agriculture

04/04//2024 (Issue date) EN (English US) 2/5

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control Parameters

For substances listed in section 3 that are not listed here, there are no established exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), AIHA (WEEL), NIOSH (REL), OSHA (PEL), or Canadian provincial governments.

8.2. Exposure Controls

Appropriate Engineering Controls: Suitable eye/body wash equipment should be available in the vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed.

Personal Protective Equipment: Gloves. Protective clothing. Protective goggles.







Materials for Protective Clothing: Chemically resistant materials and fabrics.

Hand Protection: Wear protective gloves.

Eye and Face Protection: Chemical safety goggles.

Skin and Body Protection: Wear suitable protective clothing.

Respiratory Protection: If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn. In case of inadequate ventilation, oxygen deficient atmosphere, or where exposure levels are not known wear approved respiratory protection.

Other Information: When using, do not eat, drink or smoke.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on Basic Physical and Chemical Properties

Physical State : Liquid

Appearance : Beige to light brown

Odor : Mild

Odor Threshold : No data available

pH : 6.5 – 7.4

Evaporation Rate No data available **Melting Point** 25 °F (-3.89 °C) **Freezing Point** 25 °F (-3.89 °C) **Boiling Point** 216 °F (102.22 °C) **Flash Point** No data available **Auto-ignition Temperature** No data available **Decomposition Temperature** No data available Flammability (solid, gas) Not applicable **Lower Flammable Limit** No data available **Upper Flammable Limit** No data available No data available **Vapor Pressure** Relative Vapor Density at 20°C No data available **Relative Density** No data available

Density : 1 g/cc

Specific Gravity: No data availableSolubility: Insoluble in water.Partition Coefficient: N-Octanol/Water: No data availableViscosity: No data available

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity:

Hazardous reactions will not occur under normal conditions.

10.2. Chemical Stability:

Stable under recommended handling and storage conditions (see section 7).

10.3. Possibility of Hazardous Reactions:

Hazardous polymerization will not occur.

04/04//2024 (Issue date) EN (English US) 3/5

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

10.4. Conditions to Avoid:

Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible Materials:

None known.

10.6. Hazardous Decomposition Products:

None known

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on Toxicological Effects - Product

Acute Toxicity (Oral): Not classified
Acute Toxicity (Dermal): Not classified
Acute Toxicity (Inhalation): Not classified

LD50 and LC50 Data:

No additional information available **Skin Corrosion/Irritation:** Not classified

pH: 6.5 - 7.4

Eye Damage/Irritation: Not classified

pH: 6.5 - 7.4

Respiratory or Skin Sensitization: Not classified

Germ Cell Mutagenicity: Not classified

Carcinogenicity: Not classified

Specific Target Organ Toxicity (Repeated Exposure): Not classified

Reproductive Toxicity: Not classified

Specific Target Organ Toxicity (Single Exposure): Not classified

Aspiration Hazard: Not classified

Symptoms/Injuries After Inhalation: Prolonged exposure may cause irritation. **Symptoms/Injuries After Skin Contact:** Prolonged exposure may cause skin irritation.

Symptoms/Injuries After Eye Contact: May cause slight irritation to eyes. Symptoms/Injuries After Ingestion: Ingestion may cause adverse effects. Chronic Symptoms: None expected under normal conditions of use.

11.2. Information on Toxicological Effects - Ingredient(s)

LD50 and LC50 Data:

No additional information available

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecology - General: Not classified.

12.2. Persistence and Degradability

12.2. I CISISTERICE dila Degradasi	icy
ABI 120 – Bradyrhizobium spp.	
Persistence and Degradability	Not established.

12.3. Bioaccumulative Potential

ABI 120 – Bradyrhizobium spp.	
Bioaccumulative Potential	Not established.

12.4. Mobility in Soil

ABI 120 – Bradyrhizobium spp.	
Ecology - Soil	Not established.

12.5. Other Adverse Effects

Other Adverse Effects: None known.

Other Information: Avoid unintended release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste Treatment Methods: Can be landfilled or incinerated, when in compliance with local regulations.

Sewage Disposal Recommendations: Do not dispose of waste into sewer.

04/04//2024 (Issue date) EN (English US) 4/5

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

Waste Disposal Recommendations: Dispose of contents/container in accordance with local, regional, national, territorial, provincial, and international regulations.

Additional Information: Empty containers may be recycled after cleaning. **Ecology - Waste Materials:** Avoid unnecessary release into the environment.

SECTION 14: TRANSPORT INFORMATION

The shipping description(s) stated herein were prepared in accordance with certain assumptions at the time the SDS was authored, and can vary based on a number of variables that may or may not have been known at the time the SDS was issued.

14.1. In Accordance with DOT

Not regulated for transport

14.2. In Accordance with IMDG

Not regulated for transport

14.3. In Accordance with IATA

Not regulated for transport

14.4. In Accordance with TDG

Not regulated for transport

SECTION 15: REGULATORY INFORMATION

15.1. US Federal Regulations

Neither this product nor its chemical components appear on any US federal agency lists, or its chemical components are not required to be disclosed.

15.2. US State Regulations

Neither this product nor its chemical components appear on any US state lists, or its chemical components are not required to be disclosed.

15.3. Canadian Regulations

Neither this product nor its chemical components appear on any Canada federal or provincial lists, or its chemical components are not required to be disclosed.

SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Date of Preparation or Latest

Revision

: 04/4/2024

Other Information

: This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200 and Canada's Hazardous Products Regulations (HPR) SOR/2015-17.

GHS Full Text Phrases:

The information in this SDS was obtained from current and reliable sources. However, the data is provided without any warranty, expressed or implied, regarding its correctness or accuracy. Since the use, handling, storage and disposal of this product are beyond our control, it is the responsibility of the user both to determine safe conditions for the use of this product and to assume liability of loss, damage, or expense arising out of the product's improper use. No warranty expressed or implied regarding the product described herein shall be created by or inferred from any statement or omission in this SDS. Various Federal, State or Provincial agencies may have specific regulations concerning the transportation, handling, storage, use, or disposal of this product which may not be reflected in this SDS. The user should review these regulations to ensure full compliance.

NA GHS SDS 2015 (Can. US)

04/04//2024 (Issue date) EN (English US) 5/5



MERISTEM CROP PERFORMANCE

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations Issue date: 04/4/2024 Version: 1.0

SECTION 1: Identification

1.1. Identification

Product form : Mixture

Product name : RACEREADY COMPLETE

Product code : 8020, 8030

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Seed treatment

1.3. Supplier

Meristem Crop Performance 489 Village Park Dr., Powell, OH 43065 833-637-4783

1.4. Emergency telephone number

Emergency number : CHEMTREC: +1 800-424-9300

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Specific target organ toxicity (repeated exposure) Category 1 H372 Causes damage to organs through prolonged or repeated

exposure

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US)



Signal word (GHS US) : Danger

Hazard statements (GHS US) : H372 - Causes damage to organs through prolonged or repeated exposure

Precautionary statements (GHS US) : P260 - Do not breathe vapors.

P264 - Wash hands thoroughly after handling.

P270 - Do not eat, drink or smoke when using this product. P314 - Get medical advice/attention if you feel unwell.

P501 - Dispose of contents/container to hazardous or special waste collection point, in

accordance with local, regional, national and/or international regulation.

2.3. Other hazards which do not result in classification

Other hazards which do not result in classification : May cause eye, skin and respiratory system irritation.

2.4. Unknown acute toxicity (GHS US)

Not applicable

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS US classification
Talc (Mg3H2(SiO3)4)	CAS-No.: 14807-96-6	< 3	STOT RE 1, H372

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures after inhalation
First-aid measures after skin contact

- : Move the affected person to the fresh air. Get medical advice/attention if you feel unwell.
- : Wash skin thoroughly with mild soap and water. If skin irritation or rash occurs: Get medical advice/attention.

First-aid measures after eye contact

: Immediately flush eyes thoroughly with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Consult an ophtalmologist if irritation persists.

First-aid measures after ingestion

: Rinse mouth out with water. Drink plenty of water. Induce vomiting if victim completely conscious/alert. Get medical advice/attention.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after inhalation

: May be irritating to the respiratory system.

Symptoms/effects after skin contact Symptoms/effects after eve contact : May cause skin irritation.: May cause eve irritation.

Chronic symptoms

: Causes damage to organs (lungs) through prolonged or repeated exposure (if inhaled).

4.3. Immediate medical attention and special treatment, if necessary

No additional information available

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Water. Foam. Dry powder. Carbon dioxide (CO2).

5.2. Specific hazards arising from the chemical

Hazardous decomposition products in case of fire : Toxic fumes may be released. Carbon oxides (CO, CO2).

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions

: Contain the extinguishing fluids by bunding.

Protection during firefighting

: Do not attempt to take action without suitable protective equipment. Complete protective clothing. Wear a self contained breathing apparatus. Use respirators and components tested and

approved under appropriate government standards such as NIOSH (US).

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Ventilate spillage area.

04/04//2024 (Issue date) US - en 2/8

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

6.1.1. For non-emergency personnel

Emergency procedures : Avoid contact with skin, eyes and clothing. Do not breathe vapors. Evacuate unnecessary

personnel. Only qualified personnel equipped with suitable protective equipment may intervene.

6.1.2. For emergency responders

Emergency procedures : Do not attempt to take action without suitable protective equipment.

6.2. Environmental precautions

Contain the spilled material by bunding. Do not allow to enter drains or water courses.

6.3. Methods and material for containment and cleaning up

For containment : Stop leak if safe to do so. Take up liquid spill into absorbent material.

Methods for cleaning up : Wash contaminated area with large amounts of water. Put into a labeled container and provide

safe disposal.

6.4. Reference to other sections

Concerning personal protective equipment to use, see item 8. Concerning disposal elimination after cleaning, see item 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Avoid contact with skin, eyes and clothing. Do not

breathe vapors. Mix well before use. Add water to dilute it if necessary. Handle in accordance

with good industrial hygiene and safety practice.

Hygiene measures : Do not drink, eat or smoke in the workplace. Wash hands and other exposed areas with soap

and water before leaving work. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in dry, well-ventilated area. Keep container closed when not in use. Do not store for

prolonged periods at elevated temperatures. Protect from repeated freezing and thawing. Keep

out of the reach of children.

Storage temperature : > 32 °F

Special rules on packaging : Store in original container.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

PRIVATE LABEL FOR MERISTEM - Extender	
No additional information available	
Talc (Mg3H2(SiO3)4) (14807-96-6)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Talc
ACGIH OEL TWA	2 mg/m³ (Containing no asbestos fibers. E - The value is for particulate matter containing no asbestos and < 1 % crystalline silica, R - Respirable particulate matter) 2 mg/m³ (Containing asbestos fibers. R - Respirable particulate matter)
ACGIH OEL TWA [ppm]	0.1 fibers/cm³ (Containing asbestos fibers. F - Respirable fibers)

04/04//2024 (Issue date) US - en 3/8

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Talc (Mg3H2(SiO3)4) (14807-96-6)		
Remark (ACGIH)	Containing no asbestos fibers = TLV® Basis: Pulm fibrosis; pulm func. Notations: A4 Containing asbestos fibers = TLV® Basis: Pneumoconiosis; lung cancer; mesothelioma. Notations: A1 (Confirmed Human Carcinogen)	
Regulatory reference	ACGIH 2021	
USA - OSHA - Occupational Exposure Limits		
Local name	Talc (not containing asbestos) (Silicates (less than 1% crystalline silica))	
OSHA PEL (TWA) [2]	20 mppcf	
Remark (OSHA)	Table Z-3. CAS No. source: eCFR Table Z-1.	
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-3 Mineral Dusts	

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure that there is a suitable ventilation system. Environmental exposure controls : Avoid discharge of the product as is into the environment.

8.3. Individual protection measures/Personal protective equipment

Materials for protective clothing:

Wear suitable protective clothing

Hand protection:

Protective gloves made of rubber. Breakthrough time: refer to the recommendations of the supplier

Eye protection:

Safety glasses

Respiratory protection:

In the event of insufficient ventilation: Wear a NIOSH approved respirator that provides protection when working with this material if exposure to harmful levels of airborne material may occur, such as: Air-Purifying Respirator for Organic Vapors, Dusts and Mists.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid

Color : No data available
Odor : No data available
Odor threshold : No data available
pH : 4.5 – 6.8
Melting point : 28 – 32 °F
Boiling point : 212 °F

Flash point : No data available
Relative evaporation rate (butyl acetate=1) : No data available
Flammability (solid, gas) : No data available
Vapor pressure : Insignificant
Relative vapor density at 20 °C : No data available
Relative density : 1.03 – 1.15

Density : 8.55 - 9.5 Pound/gallon
Solubility : Water: Dispersible
Partition coefficient n-octanol/water (Log Pow) : No data available

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Auto-ignition temperature : No data available
Decomposition temperature : No data available
Viscosity, kinematic : No data available
Viscosity, dynamic : 60 – 250 cP
Explosion limits : No data available
Explosive properties : No texplosive.
Oxidizing properties : Non oxidizing material.

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

None under normal conditions.

10.2. Chemical stability

Stable at ambient temperature and under normal conditions of use.

10.3. Possibility of hazardous reactions

Polymerization can occur.

10.4. Conditions to avoid

Extremely high or low temperatures. Protect from freezing.

10.5. Incompatible materials

None to our knowledge.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Respiratory or skin sensitization : Not classified Germ cell mutagenicity : Not classified Carcinogenicity : Not classified Reproductive toxicity : Not classified STOT-single exposure : Not classified

STOT-repeated exposure : Causes damage to organs through prolonged or repeated exposure.

Aspiration hazard : Not classified
Viscosity, kinematic : No data available

Symptoms/effects after inhalation : May be irritating to the respiratory system.

Symptoms/effects after skin contact : May cause skin irritation.

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Symptoms/effects after eye contact : May cause eye irritation.

Chronic symptoms : Causes damage to organs (lungs) through prolonged or repeated exposure (if inhaled).

SECTION 12: Ecological information

12.1. Toxicity

No additional information available

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods Additional information

- : Collect all waste in suitable and labeled containers and dispose according to local legislation.
- The user's attention is drawn to the possible existence of specific european, national or local

regulations regarding disposal.

SECTION 14: Transport information

In accordance with DOT / TDG / IMDG / IATA

TDG	IMDG	IATA	
Not applicable	Not applicable	Not applicable	
14.3. Transport hazard class(es)			
Not applicable	Not applicable	Not applicable	
14.4. Packing group			
Not applicable	Not applicable	Not applicable	
14.5. Environmental hazards			
Not applicable	Not applicable	Not applicable	
	Not applicable Not applicable Not applicable	Not applicable Not applicable Not applicable Not applicable Not applicable Not applicable	

14.6. Special precautions for user

DOT

No data available

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

TDG

No data available

IMDG

No data available

IATA

No data available

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

Commercial status of components according to the United States Environmental Protection Agency's Toxic Substances Control Act (TSCA):

Name	CAS-No.	Listing	Commercial status	Flags
Talc (Mg3H2(SiO3)4)	14807-96-6	Present	Active	

Talc (Mg3H2(SiO3)4) (14807-96-6)

Not subject to reporting requirements of the United States SARA Section 313

15.2. International regulations

CANADA

Talc (Mg3H2(SiO3)4) (14807-96-6)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

Talc (Mg3H2(SiO3)4) (14807-96-6)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

National regulations

PRIVATE LABEL FOR MERISTEM - Extender

All components of this product are present and listed as Active, or excluded from the directory, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

SARA 313

This product contains no chemicals in excess of the applicable de minimis concentration that are subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372 (Table 372.65).

All chemical substances in this product are listed on the Canadian DSL (Domestic Sustances List)

All chemical substances in this product are listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

15.3. US State regulations

PRIVATE LABEL FOR MERISTEM - Extender	
U.S California - Proposition 65 - Other information	California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Component	State or local regulations
Talc (Mg3H2(SiO3)4)(14807-96-6)	U.S Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
Data sources: ECHA (European Chemicals Agency). SDS of suppliers.

Full text of H-phra	ises
H372	Causes damage to organs through prolonged or repeated exposure

Abbreviations and acronyms	
DOT	Department of Transportation (DOT)
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
TDG	Transportation of Dangerous Goods

Safety Data Sheet (SDS), USA

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.



MERISTEM CROP PERFORMANCE

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations Issue date: 03/13/2024 Version: 1.0

SECTION 1: Identification

1.1. Identification

Product form : Mixture

Product name : RACEREADY COMPLETE

Product code : 8020, 8030

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Seed treatment

1.3. Supplier

Meristem Crop Performance 489 Village Park Dr., Powell, OH 43065 833-637-4783

1.4. Emergency telephone number

Emergency number : CHEMTREC: +1 800-424-9300

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Not classified

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Precautionary statements (GHS US) : P280 - Wear protective gloves, protective clothing, eye protection, face protection.

2.3. Other hazards which do not result in classification

Other hazards which do not result in classification : Microorganisms can potentially cause sensitisation reactions.

2.4. Unknown acute toxicity (GHS US)

No additional information available

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS US classification
Glycerol	CAS-No.: 56-81-5	15 – 25	Not classified
Trichoderma virens	-	1 – 5	Not classified

Full text of hazard classes and H-statements: see section 16

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : Move the affected person to the fresh air. Get medical advice/attention if you feel unwell.

First-aid measures after skin contact : Wash with water and soap as a precaution. Get medical advice if skin irritation persists.

First-aid measures after eye contact : Rinse eyes with water as a precaution. Consult an ophthalmologist if irritation persists.

First-aid measures after ingestion : Rinse mouth out with water. Get medical advice/attention.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects : Microorganisms can potentially cause sensitisation reactions.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Use extinguishing agent suitable for surrounding fire.

5.2. Specific hazards arising from the chemical

Hazardous decomposition products in case of fire : Toxic fumes may be released. Carbon oxides (CO, CO2).

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions : Cool down the containers exposed to heat with a water spray. Contain the extinguishing fluids by

bunding.

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Complete protective

clothing. Self contained breathing apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Ventilate spillage area.

6.1.1. For non-emergency personnel

Emergency procedures : Avoid contact with skin and eyes. Avoid breathing vapors.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment.

6.2. Environmental precautions

Contain the spilled material by bunding. Prevent liquid from entering sewers, watercourses, underground or low areas.

6.3. Methods and material for containment and cleaning up

For containment : Take up liquid spill into inert absorbent material.

Methods for cleaning up : Hose down area with water.

Other information : Collect all waste in suitable and labeled containers and dispose according to local legislation.

6.4. Reference to other sections

Concerning personal protective equipment to use, see item 8. Concerning disposal elimination after cleaning, see item 13.

04/04//2024 (Issue date) US - en 2/7

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Avoid contact with skin and eyes. Avoid breathing

vapors. Handle in accordance with good agricultural, health and safety practice.

Hygiene measures : Do not drink, eat or smoke in the workplace. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store tightly closed in a dry, cool and well-ventilated place. Keep container tightly closed. Keep

away from food, drink and animal feeding stuffs. Keep out of the reach of children.

Incompatible materials : Strong oxidizing agents.
Special rules on packaging : Store in original container.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Glycerol (56-81-5)	
USA - OSHA - Occupational Exposure Limits	
Local name Glycerin (mist)	
OSHA PEL (TWA) [1]	15 mg/m³ (Total dust) 5 mg/m³ (Respirable fraction)
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure that there is a suitable ventilation system.

Environmental exposure controls : Avoid sub-soil penetration.

8.3. Individual protection measures/Personal protective equipment

Hand protection:

Protective gloves. Breakthrough time: refer to the recommendations of the supplier

Eye protection:

Safety glasses

Skin and body protection:

Protective clothing

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid

Color : Green-brown

Odor : No data available

Odor threshold : No data available

04/04//2024 (Issue date) US - en 3/7

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

pH : 6.8

: No data available Melting point : No data available Freezing point Boiling point : No data available Flash point : No data available Relative evaporation rate (butyl acetate=1) : No data available Flammability (solid, gas) : Not applicable. Vapor pressure : No data available Relative vapor density at 20°C : No data available

Relative density : 1.039

Solubility : No data available Partition coefficient n-octanol/water (Log Pow) : No data available : No data available Auto-ignition temperature : No data available Decomposition temperature : No data available Viscosity, kinematic Viscosity, dynamic : No data available **Explosion limits** : No data available Explosive properties : Not explosive. Oxidizing properties : Non oxidizing.

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

To our knowledge, the product does not present any particular risk, under normal conditions of use.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

None to our knowledge.

10.4. Conditions to avoid

None to our knowledge.

10.5. Incompatible materials

Strong oxidizing agents.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified Acute toxicity (dermal) : Not classified Acute toxicity (inhalation) : Not classified

Glycerol (56-81-5)

LD50 oral rat 11500 mg/kg (Published data)

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Glycerol (56-81-5)	
LD50 dermal	56750 mg/kg (Guinea pig)(Published data)
LC50 inhalation rat (mg/l)	> 5.85 mg/l/4h (spray)(Published data)

Skin corrosion/irritation : Not classified

pH: 6.8

Serious eye damage/irritation : Not classified

pH: 6.8

Respiratory or skin sensitization : Not classified

Microorganisms can potentially cause sensitisation reactions

Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified
Reproductive toxicity : Not classified
STOT-single exposure : Not classified
STOT-repeated exposure : Not classified
Aspiration hazard : Not classified
Viscosity, kinematic : No data available

Symptoms/effects : Microorganisms can potentially cause sensitisation reactions.

SECTION 12: Ecological information

12.1. Toxicity

No additional information available

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Shovel into suitable and closed container for disposal. Product/Packaging disposal recommendations : Dispose of in accordance with relevant local regulations.

SECTION 14: Transport information

In accordance with DOT / TDG / IMDG / IATA

DOT	TDG	IMDG	IATA
14.1. UN number			
Not regulated for transport			

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

DOT	TDG	IMDG	IATA
14.2. Proper Shipping Name			
Not regulated	Not regulated	Not regulated	Not regulated
14.3. Transport hazard class(es)			
Not regulated	Not regulated	Not regulated	Not regulated
14.4. Packing group			
Not regulated	Not regulated	Not regulated	Not regulated
14.5. Environmental hazards			
Not regulated	Not regulated	Not regulated	Not regulated

14.6. Special precautions for user

DOT

Not regulated

TDG

Not regulated

IMDG

Not regulated

IATA

Not regulated

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

Commercial status of components according to the United States Environmental Protection Agency's Toxic Substances Control Act (TSCA):

Name	CAS-No.	Listing	Commercial status	Flags
Glycerol	56-81-5	Present	Active	
Trichoderma virens		Not present	-	

Glycerol (56-81-5)

Not subject to reporting requirements of the United States SARA Section 313

Trichoderma virens

Not subject to reporting requirements of the United States SARA Section 313

15.2. International regulations

CANADA

Glycerol (56-81-5)

Listed on the Canadian DSL (Domestic Substances List)

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Trichoderma virens

Not listed on the Canadian DSL (Domestic Substances List)/NDSL (Non-Domestic Substances List)

EU-Regulations

Glycerol (56-81-5)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Trichoderma virens

Not listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

National regulations

Private Label for Meristem - Trich

All components of this product are present and listed as Active, or excluded from the directory, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

SARA 313

This product contains no chemicals in excess of the applicable de minimis concentration that are subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372 (Table 372.65).

Except Trichoderma virens, all chemical substances in this product are listed on the Canadian DSL (Domestic Sustances List)

All chemical substances in this product are listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances) except *Trichoderma virens*

15.3. US State regulations

Private Label for Meristem - Trich	
U.S California - Proposition 65 - Other information	California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

Component	State or local regulations
Glycerol(56-81-5)	U.S Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Issue date : 04/4/2024

Data sources : ECHA (European Chemicals Agency). SDS of suppliers.

Abbreviations and acronyms	
DOT	Department of Transportation (DOT)
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
TDG	Transportation of Dangerous Goods

Safety Data Sheet (SDS), USA

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.