SECTION 1: Identification

1.1 Product identifier

Product name REVLINE® HOPPER THROTTLE™ CORN

1.2 Other means of identification

Not applicable

1.3 Recommended use of the chemical and restrictions on use

Agricultural product

1.4 Supplier's details

Name Meristem Crop Performance Address 489 Village Park Drive

Powell, Ohio 43065

USA

Telephone 833-637-4783

1.5 Emergency phone number(s)

CHEMTREC: 1-800-424-9300

SECTION 2: Hazard identification

2.1 Classification of the substance or mixture

GHS classification in accordance with: US OSHA (29 CFR 1910.1200)

- Eye damage/irritation, Cat. 1

- Carcinogenicity, Cat. 1A

2.2 GHS label elements, including precautionary statements

Pictogram



Signal word Danger

Hazard statement(s)

H318 Causes serious eye damage

H350 May cause cancer [by inhalation of dust]

Precautionary statement(s)

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P264 Wash hands and exposed skin thoroughly after handling.

P280 Wear protective gloves, protective clothing, eye protection, face protection.

P305+P351+P338+P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove

contact lenses if present and easy to do. Continue rinsing. Immediately call a

POISON CENTER/doctor.

P308+P313 IF exposed or concerned: Get medical advice/attention.

P405 Store locked up.

P501 Dispose of contents/container in accordance with

local/regional/national/international regulations.

2.3 Hazards not otherwise classified (HNOC)

No data available

SECTION 3: Composition/information on ingredients

3.1 Substances

Not applicable

3.2 Mixtures

Components

Component	Concentration
Talc (CAS no.: 14807-96-6)	69% (weight)
Graphite (CAS no.: 7782-42-5)	17% (weight)
Zinc Sulfate (CAS no.: 7446-19-7)	11% (weight)
Manganese Oxide (CAS no.: 1344-43-0)	1% (weight)
Iron Oxide (CAS no.: 1309-37-1)	1% (weight)
Quartz (CAS no.: 14808-60-7)	<1% (weight)

Bio-capsule ingredients: Azotobacter Chroococcum, Azotobacter Vinelandii, Bacillus Amyloliquefaciens, Bacillus Licheniformis, Bacillus Megaterium, Bacillus Pumilus, Bacillus Subtilis, Trichoderma Harzianum, Mannanase, Lipase, Methylobacterium gregans.

SECTION 4: First-aid measures

4.1 Description of necessary first-aid measures

If inhaled Remove to fresh air and promote deep breathing. Get medical attention if

effects persist.

In case of skin contact Wash with plenty of soap and water. Get medical attention if irritation

develops or persists.

In case of eye contact Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if

present and easy to do. Continue rinsing. Immediately call a poison center or

doctor.

If swallowed Call a poison center or doctor if you feel unwell. If vomiting occurs naturally,

have victim lean forward to reduce the risk of aspiration. Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything

by mouth to an unconscious person.

4.2 Most important symptoms/effects, acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11.

If inhaled Product particles in case of accidental penetration of the airways may cause

mechanical irritation of respiratory tract, cough.

In case of skin contact Prolonged and repeated exposure may cause skin irritation. Signs/symptoms

may include localized dryness, redness, and itching.

In case of eye contact Causes serious eye damage. Signs/symptoms may include cloudy

appearance of the cornea, severe pain, tearing, ulcerations, significantly

impaired vision or complete loss of vision.

If swallowed May cause gastrointestinal irritation and other adverse effects.

Signs/symptoms may include burning sensation, abdominal pain, stomach

upset, nausea, vomiting and diarrhea.

Chronic effects May cause cancer. Inhalation of respirable quartz may cause lung diseases,

including silicosis and lung cancer.

4.3 Indication of immediate medical attention and special treatment needed, if necessary

Treat symptomatically and supportively.

SECTION 5: Fire-fighting measures

5.1 Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

5.2 Specific hazards arising from the chemical

Hazardous combustion products: Carbon monoxide, carbon dioxide, and other hazardous fumes and gases.

5.3 Special protective actions for fire-fighters

Wear self-contained breathing apparatus for firefighting if necessary. Fight fire from a safe distance or a protected location. Approach fire from upwind to avoid hazardous vapours or gases.

Further information

No data available

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear personal protection recommended in Section 8. Ensure adequate ventilation. Avoid breathing dusts. Avoid formation of suspended dust or powder. Keep all ignition sources away.

6.2 Environmental precautions

Discharge into the environment must be avoided.

6.3 Methods and materials for containment and cleaning up

Sweep up or vacuum up spillage and arrange disposal without creating airborne dust. Keep in suitable, closed containers for disposal.

Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Handle in accordance with good industrial hygiene and safety practices. Avoid inhalation and contact with skin and eyes. Ensure adequate ventilation. Wash hands with soap and water after handling. When using do not eat, drink or smoke. Minimize dust generation and accumulation.

7.2 Conditions for safe storage, including any incompatibilities

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from direct sunlight, heat, and sources of ignition.

Specific end use(s)

Apart from the uses mentioned in section 1 no other specific uses are stipulated.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

Talc (CAS no.: 14807-96-6) PEL-TWA: 20 mppcf (OSHA) REL-TWA: 2 mg/m³ (NIOSH) TLV-TWA: 2 mg/m³ (ACGIH)

Graphite (CAS no.: 7782-42-5) PEL-TWA: 15 mppcf (OSHA) REL-TWA: 2.5 mg/m³ (NIOSH) TLV-TWA: 2 mg/m³ (ACGIH)

Manganese Oxide (CAS no.: 1344-43-0)

PEL-C: 5 mg/m³ (OSHA) REL-TWA: 1 mg/m³ (NIOSH) REL-STEL: 3 mg/m³ (NIOSH)

TLV-TWA: 0.02 mg/m³ (respirable particulate matter), 0.1 mg/m³; (inhalable particulate matter) (ACGIH)

Iron oxide (CAS no.: 1309-37-1) (fume)

PEL-TWA: 10 mg/m³ (OSHA) REL-TWA: 5 mg/m³ (NIOSH)

TLV-TWA: 5 mg/m³ (respirable particulate matter) (ACGIH)

Quartz (CAS no.: 14808-60-7)

PEL-TWA: 50 µg/m³ [25 µg/m³ Action Level] (OSHA)

REL-TWA: 0.05 mg/m³ (NIOSH)

TLV-TWA: 0.025 mg/m³ (respirable particulate matter) (ACGIH)

8.2 Appropriate engineering controls

Provide general ventilation or local exhaust ventilation to minimize exposure to dust and maintain airborne concentrations below OSHA PELs or other specified exposure limits. Use explosion-proof electrical/ventilating/lighting/equipment.

8.3 Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection

Wear safety goggles. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Protective gloves (for hands) and protective clothing are recommended.

Body protection

The type of protective equipment must be selected according to the concentration and amount of the dangerous substances at the specific workplace.

Respiratory protection

If engineering controls and ventilation are not sufficient to control exposure to below the allowable limits then an appropriate NIOSH/MSHA approved air-purifying respirator must be used.

Thermal hazards

No data available.

Environmental exposure controls

Discharge into the environment must be avoided.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance/form (physical state, color, etc.)

Grey solid powder.

Odor Characteristic.

Odor threshold No data available. PH Not applicable.

Melting point/freezing point

No data available.

Initial boiling point and boiling range

Flash point

Evaporation rate

Flammability (solid, gas)

Upper/lower flammability limits

No data available.

Upper/lower explosive limits
Vapor pressure
Vapor density
Relative density
Density
No data available.

Solubility(ies)

Partition coefficient: n-octanol/water

Auto-ignition temperature

Ignition temperature

No data available.

Decomposition temperature

Viscosity

No data available.

No data available.

Not applicable.

Viscosity

Explosive properties

Oxidizing properties

Not applicable.

Not explosive.

Not oxidizing.

Other safety information

No data available.

SECTION 10: Stability and reactivity

10.1 Reactivity

Non-reactive under normal use conditions.

10.2 Chemical stability

Stable under normal storage conditions.

10.3 Possibility of hazardous reactions

No data available.

10.4 Conditions to avoid

Avoid airborne dust generation.

10.5 Incompatible materials

Strong oxidizing agents, strong acids, strong bases.

10.6 Hazardous decomposition products

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

SECTION 11: Toxicological information

Information on toxicological effects

Likely Routes of Exposure: Eye contact. Skin contact. Inhalation.

If inhaled Product particles in case of accidental penetration of the airways may cause

mechanical irritation of respiratory tract, cough.

In case of skin contact Prolonged and repeated exposure may cause skin irritation. Signs/symptoms

may include localized dryness, redness, and itching.

In case of eye contact Causes serious eye damage. Signs/symptoms may include cloudy

appearance of the cornea, severe pain, tearing, ulcerations, significantly

impaired vision or complete loss of vision.

If swallowed May cause gastrointestinal irritation and other adverse effects.

Signs/symptoms may include burning sensation, abdominal pain, stomach

upset, nausea, vomiting and diarrhea.

Chronic effects May cause cancer. Inhalation of respirable quartz may cause lung diseases,

including silicosis and lung cancer.

Acute toxicity

Based on available data, classification criteria are not met.

Components:

Talc (CAS no.: 14807-96-6) LD50 (oral): >2000 mg/kg LD50 (dermal): >2000 mg/kg

Graphite (CAS no.: 7782-42-5) LD50 (oral): >2000 mg/kg LD50 (dermal): >2000 mg/kg

Zinc Sulfate (CAS no.: 7446-19-7) LD50 (oral): 574 to 2949 mg/kg LD50 (dermal): >2000 mg/kg

Skin corrosion/irritation

Based on available data, classification criteria are not met.

Serious eye damage/irritation

Causes serious eye damage.

Respiratory or skin sensitization

No data available.

Germ cell mutagenicity

No data available.

Carcinogenicity

May cause cancer by inhalation of dust.

IARC: Product contains crystalline silica (quartz), which is classified as carcinogenic to humans (Group 1). NTP: Product contains crystalline silica (quartz), which is classified as known to be a human carcinogen. OSHA: Product contains crystalline silica (quartz), which is specifically regulated carcinogen by OSHA.

Reproductive toxicity

No data available.

STOT-single exposure

No data available.

STOT-repeated exposure

No data available.

Aspiration hazard

No data available.

Additional information

No data available.

SECTION 12: Ecological information

Toxicity

No data available on product.

Persistence and degradability

No data available on product.

Bioaccumulative potential

No data available on product.

Mobility in soil

No data available on product.

Results of PBT and vPvB assessment

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

Other adverse effects

No data available on product.

SECTION 13: Disposal considerations

Disposal of the product

Disposal should be in accordance with applicable Federal, State and local laws and regulations. Local regulations may be more stringent than State or Federal requirements.

Disposal of contaminated packaging

Dispose of as unused product.

SECTION 14: Transport information

This product is not considered dangerous goods for shipping in either single or inner packaging of 5kg (11lb) or less.

The following is only applicable for shipping in larger quantities:

DOT (US)

UN Number: UN 3077

Class: 9

Packing group: III

Proper Shipping Name: Environmentally Hazardous Substances, Solid N.O.S. (Zinc Sulfate)

IMDG

UN Number: UN 3077

Class: 9

Packing group: III

Proper Shipping Name: Environmentally Hazardous Substances, Solid N.O.S. (Zinc Sulfate)

IATA

UN Number: UN 3077

Class: 9

Packing group: III

Proper Shipping Name: Environmentally Hazardous Substances, Solid N.O.S. (Zinc Sulfate)

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations specific for the product in question

SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 311/312 Hazards

Acute Health Hazard, Chronic Health Hazard.

SARA 313 Components

Zinc Sulfate (CAS no.: 7446-19-7) Manganese Oxide (CAS no.: 1344-43-0)

HMIS Rating



NFPA Rating



SECTION 16: Other information

16.1 Further information/disclaimer

Date of issue: April 02, 2024.

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