



Rooted in Science

SAFETY DATA SHEET

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

1.1 Product Identifier

Trade Name Germinex Talc TG

SDS Date May 26, 2015

1.2 Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

Product Use: Seed treatment

Uses Advised Against: To be used only where there is a recognized need. Do not exceed the appropriate dose rates.

1.3 Details of the Supplier of the Substance or Mixture

Manufacturer: Floratine Products Group, Inc.
355 East South Street
Collierville, TN 38017
+1 901-853-2898

1.4 Emergency Telephone Number

Emergency Spill Information 1(800) 424-9300 for US and Canada (CHEMTREC)
+1(703) 527-3887 for International Calls (call CHEMTREC collect)

Other Product Information: cs@floratine.com

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the Substance or Mixture

CLP/GHS Classification (1272/2008):
Eye Irritation Category 2

2.2 Label Elements

Warning!



Hazard Phrases

H319 Causes serious eye irritation.

Precautionary Phrases:

P280 Wear eye protection and face protection.

P305+P351+P338 IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.

P337 + P313 If eye irritation persists: Get medical attention.

P264 Wash thoroughly after handling.

P314 Get medical attention if you feel unwell.

P501 Dispose of contents or container in accordance with national regulations.

2.3 Other Hazards: None

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS Number / EINECS Number / REACH Reg. Number	% (w/w)	CLP/GHS Classification (1272/2008)
Talc (Crystalline, Silica, Quartz)	14807-96-6/ 238-877-9/ 14808-60-7 238-878-4	<1%	STOT RE 1 (H372)
Calcium Salt	Proprietary	0-10	Not hazardous
Magnesium salt	7487-88-9 / 231-298-2	0-10%	Not hazardous
Boric Acid	10043-35-3 / 233-139-2	<1%	Repr. 1B (H360)
Copper salt	7758-98-7 / 231-847-6	<1%	Acute Tox. 4 (H302) Skin Irrit. 2 (H315) Eye Irrit.2 (H319)
Iron Compound	Proprietary	0-10%	Skin Irrit. 2 (H315) Eye Irrit.2 (H319) STOT SE 3 (H335)
Zinc Compound	7733-02-0 / 231-793-3	0-1%	Acute Tox. 4 (H302) Eye Dam. 1 (H318)
Sodium Molybdate	7631-95-0 / 7631-95-0	<1%	Not hazardous

See Section 16 for full text of GHS and EU Classifications.

SECTION 4: FIRST AID MEASURES

4.1 Description of First Aid Measures

First Aid

Eye contact: In case of contact with eyes, flush immediately with water for at least 15 minutes while lifting the upper and lower lids. Get medical attention.

Skin contact: Wash with soap and water. Get medical attention if irritation develops or persists.

Inhalation: Remove victim to fresh air. Get medical attention if irritation develops or persists.

Ingestion: Do not induce vomiting unless directed to do so by medical personnel. If the person is alert, have them rinse their mouth with water and sip one glass of water. Call a poison center or physician for advice. Never give anything by mouth to an unconscious or drowsy person.

See Section 11 for more detailed information on health effects.

4.2 Most Important symptoms and effects, both acute and delayed: Causes eye irritation. May cause skin irritation on prolonged or repeated use. Swallowing may cause nausea and diarrhea.

4.3 Indication of any immediate medical attention and special treatment needed: Immediate medical attention should not be needed unless large amounts are swallowed.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing Media: Use media appropriate for the surrounding fire. Cool fire exposed containers with water.

5.2 Special Hazards Arising from the Substance or Mixture

Unusual Fire and Explosion Hazards: None

Combustion Products: Oxides of carbon, sulfur, magnesium, copper, zinc and iron.

5.3 Advice for Fire-Fighters: Self-contained breathing apparatus and protective clothing should be worn in fighting fires involving chemicals. Determine the need to evacuate or isolate the area according to your local emergency plan. Use water spray to keep fire exposed containers cool.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions, Protective Equipment and Emergency Procedures:

Wear appropriate protective equipment. Avoid direct contact with spilled material.

6.2 Environmental Precautions:

Prevent entry in storm sewers and waterways. Report spill as required by local and national regulations.

6.3 Methods and Material for Containment and Cleaning Up:

Carefully collect and place in an appropriate container for disposal. Wash spill site with water. Contain large spills and collect as much powder as possible into containers for use.

6.4 Reference to Other Sections:

Refer to Section 8 for personal protective equipment and Section 13 for disposal information.

SECTION 7: HANDLING and STORAGE

7.1 Precautions for Safe Handling:

Avoid eyes and prolonged skin contact. Use with adequate ventilation. Use reasonable care in handling. Do not eat, drink or smoke while using product. Wash thoroughly with soap and water after handling.

7.2 Conditions for Safe Storage, Including any Incompatibilities:

Protect containers from physical damage. Keep from freezing. Keep containers closed. Empty containers retain product residues. Follow all SDS precautions in handling empty containers. Store away from food and feed.

7.3 Specific end use(s):

Industrial uses: None identified

Professional uses: Seed treatment

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control Parameters:

Chemical Name	US OEL	EU IOEL	UK OEL	Biological Limit Value
Talc (Crystalline, Silica, Quartz)	2 mg/m ³ TWA (respirable) ACGIH TLV 20 mppcf OSHA PEL	None Established	1 mg/m ³ TWA (respirable)	None Established
Magnesium Salt	None Established	None Established	None Established	None Established
Boric Acid (as borate compounds, inorganic)	2 mg/m ³ TWA TLV (Inhalable) 6 mg/m ³ STEL TLV (inhalable)	None Established	None Established	None Established
Copper Salt	None Established	None Established	None Established	None Established
Iron Compound	None Established	None Established	None Established	None Established
Zinc Compound	None Established	None Established	None Established	None Established
Sodium Molybdate (as molybdenum soluble compounds)	0.5 mg/m ³ TWA (respirable) ACGIH TLV 5 mg/m ³ OSHA PEL	None Established	5 mg/m ³ TWA 10 mg/m ³ STEL	None Established

8.2 Exposure Controls:

Recommended Monitoring Procedures: None established.

Appropriate Engineering Controls: Good outdoor ventilation should be adequate under normal conditions of use.

Personal Protective Measurers

Eye/face Protection: Chemical goggles recommended to avoid eye contact.

Skin Protection: Impervious clothing is recommended if needed to avoid skin contact.

Hands: Impervious gloves are recommended if needed to avoid skin contact.

Respiratory Protection: None needed under normal use conditions with adequate ventilation. If mists are excessive, an approved particulate respirator can be used. Use respirators in accordance with local and national regulations.

Other protection: Suitable washing facilities should be available in the work area.

SECTION 9: PHYSICAL and CHEMICAL PROPERTIES

9.1 Information on basic Physical and Chemical Properties

Appearance: White powder

Odor Threshold: Not available

Melting/Freezing Point: Not determined

Flash Point: Not flammable

Lower Flammability Limit: Not applicable

Upper Flammability Limit: Not applicable

Vapor Density(Air=1): Not applicable

Solubility: Partially

Autoignition Temperature: None

Viscosity: Not applicable

Oxidizing Properties: None

Molecular Formula: Mixture

Odor: No odor.

pH: Not available

Boiling Point: Not applicable

Evaporation Rate: Not applicable

Vapor Pressure: Not applicable

Relative Density: 2.5-2.8

Octanol/Water Partition Coefficient: Not determined

Decomposition Temperature: Not determined

Explosive Properties: None

Specific Gravity (H₂O= 1): 2.5-2.8

Molecular Weight: Mixture

9.2 Other Information: None available

SECTION 10: STABILITY and REACTIVITY

10.1 Reactivity: Not reactive under normal conditions.

10.2 Chemical Stability: Stable.

10.3 Possibility of Hazardous Reactions: Contact with strong oxidizers may cause an exothermic reaction producing heat.

10.4 Conditions to Avoid: Avoid excessive heat and freezing.

10.5 Incompatible Materials: Incompatible with oxidizing agents.

10.6 Hazardous Decomposition Products: Decomposition may produce oxides of carbon, sulfur, magnesium, copper, zinc and iron.

SECTION 11: TOXICOLOGICAL INFORMATION**11.1 Information on Toxicological Effects:****Potential Health Effects:**

Eye Contact: Causes irritation with redness, tearing and stinging.

Skin contact: Prolonged skin contact may cause irritation.

Inhalation: Excessive inhalation of dust may cause upper respiratory tract irritation.

Ingestion: Swallowing may cause gastrointestinal effects including nausea and diarrhea

Acute toxicity: No acute toxicity data available for the product. Calculated ATE for the mixture: Oral 7851 mg/kg
Talc: No toxicity data available

Magnesium Salt: Oral rat LD50 >2000 mg/kg

Zinc Compound: Oral rat LD50 1710 mg/kg; Dermal rat LD50 >2000 mg/kg

Copper Salt: Oral rat LD50 480 mg/kg; Dermal rat LD50 >2000 mg/kg

Iron Compound: No toxicity data available

Skin corrosion/irritation: Magnesium salt is not irritating based on data from structurally similar chemicals. Copper salt and zinc compound are not irritating to rabbit skin. Ferrous salt is irritating to rabbit skin.

Eye damage/ irritation: Magnesium salt is not irritating to eyes based on data from a structurally similar chemical. Copper salt is moderately irritating to rabbit eyes. Zinc compound is highly irritating to rabbit eyes. Iron compound is not irritating to rabbit eyes.

Respiratory Irritation: No data available. Expected to cause only temporary irritation.

Respiratory Sensitization: No data available.

Skin Sensitization: Magnesium salt, zinc compound and Iron compound were negative in a mouse local lymph node assay. Copper salt was negative in Freund's complete adjuvant test.

Germ Cell Mutagenicity: Magnesium salt was negative in an AMES test, in an in vitro mammalian cell gene mutation test using Chinese hamster lung cells and in an in vivo micronucleus assay. Copper salt was negative in the AMES test and in an in vivo mammalian erythrocyte micronucleus test. Ferrous salt was negative in an in vitro mammalian chromosome aberration test and in an in vivo chromosome aberration assay. Zinc compound was negative in an in vitro gene mutation assay, AMES test and in vivo chromosome aberration assay.

Carcinogenicity: Talc is listed as “Carcinogenic to Humans” (Group 1) by IARC and “Known to be a Human Carcinogen” by NTP. None of the other components of this product are listed as carcinogens by OSHA, IARC or NTP or the EU directive.

Reproductive Toxicity: Magnesium salt is not toxic to reproduction based on studies with structurally similar chemicals. In a two generational reproductive study in rats, no reproductive toxicity was seen at any concentration. NOAEL 1000 ppm. Zinc compound was administered to mice at days 6-15 of gestation. No maternal or developmental toxicity was observed at the highest dosage. NOEAL 30 mg/kg.

Specific Target Organ Toxicity:

Single Exposure: No data available.

Repeat Exposure: Excessive inhalation of respirable talc may cause a progressive, disabling and sometimes fatal lung disease called silicosis. Symptoms include cough, shortness of breath, wheezing, non-specific chest illness and reduced pulmonary function.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity: No toxicity data available for the product.

Talc: 24 hr LC50 Brachydanio rerio (Zebra fish) >100 g/

Magnesium Salt: 96 hr LC50 Oryzias latipes > 96.4 mg/L, 48hr daphnia magna > 88.7 mg/L, 72 hr EC50 Algae > 99.2 mg/L

Copper Salt: 96 hr LC50 Oncorhynchus kisutch (coho salmon) 286 ug/L

Zinc compound: 96 hr LC50 Pimephales promelas 330 ug/L; 48 hr LC50 daphnia magna 259 ug/L

Iron compound: No toxicity data available

12.2 Persistence and degradability: Biodegradation is not applicable to inorganic substances such as talc, zinc compound, magnesium salt, copper salt and Iron compound.

12.3 Bioaccumulative Potential: No data available.

12.4 Mobility in Soil: In the soil, product follows natural cycle to provide plant nutrients.

12.5 Results of PVT and vPvB assessment: Not required.

12.6 Other Adverse Effects: No data available.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste Treatment Methods:

Dispose in accordance with local/ and national regulations. Not considered hazardous waste according to EU regulations.

SECTION 14: TRANSPORTATION INFORMATION

	14.1 UN Number	14.2 UN Proper Shipping Name	14.3 Hazard Class(s)	14.4 Packing Group	14.5 Environmental Hazards
US DOT	None	Not Regulated			
Canadian TDG	None	Not Regulated			
EU ADR/RID	None	Not Regulated			
IMDG	None	Not Regulated			
IATA/ICAO	None	Not Regulated			

14.6 Special Precautions for User: None

14.7 Transport in Bulk According to Annex III MARPOL 73/78 and the IBC Code: Not determined.

SECTION 15: REGULATORY INFORMATION

15.1 Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture

US Regulations

CERCLA Section 103: The normal application of fertilizers is exempt from CERCLA reporting. If an accidental release occurs, contact Floratine Products Group for information.

SARA Hazard Category (311/312): Acute Health Hazard, Chronic Health Hazard

SARA 313: Products used in routine agricultural operations and fertilizers held for resale by retailers is excluded from SARA 313 reporting. Contact Floratine Products Group for additional information.

California Proposition 65: This product contains the following substances known to the State of California to cause cancer and/or reproductive harm (birth defects): Talc 14808-60-7 <1% (cancer)

International Chemical Inventories

EPA Toxic Substances Control Act (TSCA) Status: All of the components of this product are listed on the TSCA inventory or exempt.

SECTION 16: OTHER INFORMATION

CLP/GHS Classification and H Phrases for Reference (See Section 3)

Acute Tox. 4 Acute Toxicity Category 4
 Eye Dam 1 Eye Damage Category 1
 Eye Irrit. 2 Eye Irritation Category 2
 Skin Irrit. 2 Skin Irritation Category 2
 Repro. 1B Reproductive Toxicity Category 1B
 STOT SE 3 Specific Target Organ Toxicity – Single Exposure Category 3
 STOT RE 1 Specific Target Organ Toxicity - Repeat Exposure Category 1
 H302 Harmful if swallowed
 H315 Causes skin irritation
 H318 Causes serious eye damage.
 H319 Causes serious eye irritation.
 H335 May cause respiratory irritation.
 H360 May damage fertility or the unborn child.
 H372 Causes damage to lungs through prolonged or repeated exposure.

This safety data sheet provides health and safety information. The product is to be used in applications consistent with best farming practice. Individuals handling this product should be informed under COSHH of the recommended safety precautions and should have access to this information. The product information data sheet is to the best of Floratine's knowledge correct as at the date of publication. Neither Floratine, importer or local supplier accepts liability for any loss or damage resulting from reliance on this information. Further information on this product may be obtained from the supplier whose name, address and telephone number will be found on the product container. The information provided herein is offered solely for your consideration, investigation and verification. This information herein is provided by Floratine in good faith as accurate at the time of writing but without guarantee. This information includes information which has been generated by other parties and provided to Floratine and which Floratine has not independently verified. The information provided herein relates only to the specific product designated and may not be valid if the product is used in combination with any other materials or in any process