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Version 1

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Name Gordon's® Pre-San® Granular 12.5G

Other means of identification

Product Code PBI FP 625-6
EPA Pesticide Registration Number 10163-198-2217

Recommended use of the chemical and restrictions on use

Recommended Use Herbicide.
Uses advised against No information available.

Details of the supplier of the safety data sheet

Supplier	Manufacturer	Company Name
PBI Gordon Corporation 1217 West 12th Street Kansas City, MO 64101	PBI Gordon Corporation 1217 West 12th Street Kansas City, MO 64101	PBI Gordon Corporation 1217 West 12th Street Kansas City, MO 64101

Emergency telephone number

Emergency Telephone Chemtrec 1-800-424-9300

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

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

Carcinogenicity	Category 1A
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Label elements

Emergency Overview

Danger		
Hazard statements May cause cancer.		
		
Appearance Granules	Physical state Solid	Odor Mercaptan

Precautionary Statements - Prevention

- Obtain special instructions before use
- Do not handle until all safety precautions have been read and understood
- Use personal protective equipment as required

Precautionary Statements - Response

- IF exposed or concerned: Get medical advice/attention

Precautionary Statements - Storage

- Store locked up

Precautionary Statements - Disposal

- Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Have the product label with you when calling a poison control center or doctor or going in for treatment. You may also contact 1-877-800-5556 for emergency medical treatment advice.

Other Information**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical Name	CAS No.	Weight-%
Trade Secret	Proprietary	70-80*
Benzenesulfonamide, N-(2-mercaptoethyl)-, S-ester with O,O-diisopropylphosphorodithioate	741-58-2	12.5
QUARTZ	14808-60-7	7.91
Trade Secret	Proprietary	0-10*

* The exact percentage (concentration) of composition has been withheld as a trade secret

4. FIRST AID MEASURES**First aid measures****Eye contact**

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a poison control center or doctor for treatment advice.

Skin Contact

Take off contaminated clothing. Wash off immediately with plenty of water for at least 15 minutes. Call a poison control center or doctor for treatment advice.

Inhalation

Remove to fresh air. If not breathing, give artificial respiration. Call a poison control center or doctor for treatment advice.

Ingestion

If swallowed, call a poison control center or physician immediately. Drink 1 or 2 glasses of water. Do not induce vomiting without medical advice.

Most important symptoms and effects, both acute and delayed**Symptoms**

No information available.

Indication of any immediate medical attention and special treatment needed**Note to physicians**

Treat symptomatically.

5. FIRE-FIGHTING MEASURES**Suitable extinguishing media**

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

Specific hazards arising from the chemical

No information available.

Explosion data

Sensitivity to Mechanical Impact None.
Sensitivity to Static Discharge None.

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 as required.

Environmental precautions

Environmental precautions Prevent further leakage or spillage if safe to do so. Do not allow into any sewer, on the ground or into any body of water. Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained. See Section 12 for additional ecological information.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Clean contaminated surface thoroughly. Use personal protective equipment as required. Cover powder spill with plastic sheet or tarp to minimize spreading and keep powder dry. Take up mechanically, placing in appropriate containers for disposal. Avoid creating dust.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Use personal protective equipment as required. Ensure adequate ventilation, especially in confined areas.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep container tightly closed in a dry and well-ventilated place. Do not contaminate food or feed stuffs.

Incompatible materials Strong acids. Strong bases.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Trade Secret	TWA: 1 mg/m ³ respirable fraction	-	-
QUARTZ 14808-60-7	TWA: 0.025 mg/m ³ respirable fraction	(vacated) TWA: 0.1 mg/m ³ respirable dust : (30)/(%SiO ₂ + 2) mg/m ³ TWA total dust : (250)/(%SiO ₂ + 5) mppcf TWA respirable fraction : (10)/(%SiO ₂ + 2) mg/m ³ TWA respirable fraction	IDLH: 50 mg/m ³ respirable dust TWA: 0.05 mg/m ³ respirable dust
Trade Secret	TWA: 1 mg/m ³ inhalable fraction and vapor S*	(vacated) TWA: 3 ppm (vacated) TWA: 15 mg/m ³	TWA: 3 ppm TWA: 15 mg/m ³

NIOSH IDLH *Immediately Dangerous to Life or Health*

Other Information Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Appropriate engineering controls

Engineering Controls Ensure adequate ventilation, especially in confined areas.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin and body protection Wear protective gloves and protective clothing.

Respiratory protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

General Hygiene Considerations When using do not eat, drink or smoke. Wash contaminated clothing before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Solid	Odor	Mercaptan
Appearance	Granules	Odor threshold	No information available
Color	Tan		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	Not Applicable	
Melting point/freezing point	No information available	
Boiling point / boiling range	No information available	
Flash point	No information available	
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	No information available	
Water solubility	Insoluble in water	
Solubility in other solvents	No information available	
Partition coefficient	No information available	
Autoignition temperature	No information available	
Decomposition temperature	No information available	
Oxidizing properties	No information available	

Other Information

Density 39-45 pounds/cubic foot

10. STABILITY AND REACTIVITY

Reactivity
No data available

Chemical stability
Stable.

Possibility of Hazardous Reactions

None under normal processing.

Hazardous polymerization

Will not occur.

Conditions to avoid

None known.

Incompatible materials

Strong acids. Strong bases.

Hazardous Decomposition Products

None known.

11. TOXICOLOGICAL INFORMATION**Information on likely routes of exposure****Product Information**

Inhalation	Not an expected route of exposure. May cause irritation of respiratory tract.
Eye contact	Avoid contact with eyes. Moderately irritating to the eyes.
Skin Contact	Substance may cause slight skin irritation.
Ingestion	May cause irritation.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Trade Secret	> 5000 mg/kg (Rat)	-	-
QUARTZ 14808-60-7	= 500 mg/kg (Rat)	-	-

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.
Germ cell mutagenicity No information available.
Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
QUARTZ 14808-60-7	A2	Group 1	Known	X
Trade Secret	A3	Group 2B		X

ACGIH (American Conference of Governmental Industrial Hygienists)

A2 - Suspected Human Carcinogen

A3 - Animal Carcinogen

IARC (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

Group 2B - Possibly Carcinogenic to Humans

NTP (National Toxicology Program)

Known - Known Carcinogen

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

X - Present

Reproductive toxicity No information available.
STOT - single exposure No information available.
STOT - repeated exposure No information available.

Target Organ Effects Eyes, lungs, Respiratory system.
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
ATEmix (oral) 2392 mg/kg

12. ECOLOGICAL INFORMATION

Ecotoxicity

Toxic to aquatic life with long lasting effects

15% of the mixture consists of component(s) of unknown hazards to the aquatic environment

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Trade Secret		8.0 - 19.0: 96 h Salmo gairdneri g/L LC50 19000: 96 h Oncorhynchus mykiss mg/L LC50 static		
Trade Secret	7.8: 72 h Desmodesmus subspicatus mg/L EC50 2.1 - 2.3: 96 h Pseudokirchneriella subcapitata mg/L EC50	4460 - 4980: 96 h Pimephales promelas mg/L LC50 flow-through 1200 - 1580: 96 h Pimephales promelas mg/L LC50 static 600 - 1000: 96 h Lepomis macrochirus mg/L LC50 static	EC50 = 73 mg/L 5 min EC50 > 16 mg/L 16 h	55: 48 h Daphnia magna mg/L EC50

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging Do not reuse container, unless specified by the manufacturer.

14. TRANSPORT INFORMATION

DOT

Description

The following guidelines apply for domestic ground transport. If shipping by air or ocean, please contact our Transportation Dept.

PESTICIDES, NOI, INCLUDING DEFOLIANTS, FUNGICIDES, HERBICIDES, OR INSECTICIDES NMFC 155050-6

In our current available sizes, this product does not qualify as a Hazardous Material.

15. REGULATORY INFORMATION

U.S. EPA Label Information

EPA Pesticide Registration Number 10163-198-2217

Federal Insecticide, Fungicide, Rodenticide Act Regulations

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:

EPA Pesticide Label

Caution. Keep out of the reach of children. Harmful if absorbed through skin. Causes moderate eye irritation. Avoid contact with eyes, skin or clothing. Note to Physician: This product is an organophosphate herbicide. If symptoms of cholinesterase inhibition are present, atropine by injection is antidotal. 2-PAM is also antidotal and may be administered, but only in conjunction with atropine.

International Inventories

TSCA	Listed
DSL/NDSL	Not Listed
EINECS/ELINCS	Listed
ENCS	Not Listed
IECSC	Listed
KECL	Listed
PICCS	Not Listed
AICS	Listed

Legend:

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 Chemical Substances/European 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

Chemical Name	TSCA	DSL	NDSL	EINECS	ELINCS	ENCS	IECSC	KECL	PICCS	AICS
Trade Secret	X	X		X			X	X	X	X
Benzenesulfonamide, N-(2-mercaptoethyl)-, S-ester with O,O-diisopropylphosphorodithioate				X		X	X	X		X
QUARTZ	X	X		X		X	X	X	X	X
Trade Secret	X	X		X		X	X	X	X	X

US 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

Chemical Name	CAS No.	Weight-%	SARA 313 - Threshold Values %
Trade Secret -		0-10*	1.0

SARA 311/312 Hazard Categories

Acute health hazard	No
Chronic Health Hazard	No
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Trade Secret	100 lb		RQ 100 lb final RQ RQ 45.4 kg final RQ

US State Regulations

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
QUARTZ 14808-60-7	X	X	X
Trade Secret	X	X	X

International Regulations

Chemical Name	Carcinogenicity	Exposure Limits
QUARTZ		Mexico: TWA 0.1 mg/m ³

16. OTHER INFORMATION

NFPA	Health hazards 0	Flammability 0	Instability 0	Physical and Chemical Properties -
HMIS	Health hazards 0	Flammability 0	Physical hazards 0	Personal protection X

Disclaimer

The information provided in this Material Safety Data Sheet is correct to the best of PBI Gordon Corporation's knowledge, information and belief at the date of this publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any other process, unless specified in the text. PBI GORDON CORPORATION MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR COURSE OF PERFORMANCE OR USAGE OF TRADE. Given the variety of factors that can affect the use and application of this product, some of which are uniquely within the user's knowledge and control, it is essential that the user evaluate the product to determine whether it is fit for a particular purpose and suitable for user's method of use or application. Each user is also responsible for evaluating the conditions of use and designing the appropriate protective mechanisms to prevent employee exposures, property damage, or release to the environment. PBI Gordon Corporation assumes no responsibility for injury to the recipient or third persons, or for any damage to any property resulting from misuse of the product.

End of Safety Data Sheet