

SOLAR GUARD

Safety Data Sheet

Revision Date: April 14, 2025

1. IDENTIFICATION

1.1 Product Name: Solar Guard

1.2 Other Identification:

Chemical Family: Calcium Carbonate

Formula: CaCO_3

CAS Numbers: 471-34-1

Product: 59% Calcium Carbonate

1.3 Recommended Uses: Solar Guard is an enhanced light-transmitting calcite mineral that optimizes photosynthesis. It keeps plants cooler for longer, minimizing abiotic damage and facilitating better water use efficiency (WUE).

1.4 Manufacturer: Willamette Ag Inc. 26135 Peoria Rd. Halsey, OR 97384 Ph: 541-995-0100

1.5 Emergency Contact: CHEMTREC USA: 800-424-9300

2. HAZARDS

2.1 Hazard Classification:

Health:

Acute Oral Toxicity	Not Classified
Acute Dermal Toxicity	Not Classified
Acute Inhalation Toxicity	Unknown
Skin Corrosion/Irritation	Not Irritating
Eye Damage/Irritation	Not irritating

Physical: None known

2.2 Signal Word(s):

Not required (GHS)

2.2.1 Hazard Statement(s):

Do not ingest

Avoid contact with skin and eyes

2.2.2 Symbol(s): No label elements required.

2.2.3 Precautionary Statement:

- Wash hands thoroughly after handling before eating, drinking, and chewing gum, using tobacco, or using the toilet.
- Remove PPE after handling this product.
- Have the product label or container with you when calling the poison control center or doctor or going for treatment.

2.3 Unclassified Hazard(s): None Known

2.4 Unknown Toxicity Ingredient: None Known

3. COMPOSITION/INFORMATION ON INGREDIENT

3.1 Product Composition:

Chemical Name	Formula	CAS No.	WT % A.I.	EINECS No.
Calcium Carbonate	CaCO ₃	471-34-1	59%	207-439-9
Remaining Components	Trade Secret	NA	41%	NA

4. FIRST AID MEASURES

4.1 Symptoms/Effects:

Acute: No known acute effects

Chronic: No known chronic effects

4.2 Eyes:

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. Get medical attention if irritation persists.

4.3 Skin:

If on skin: Rinse off immediately with plenty of water for 15-20 minutes. Take off contaminated clothing and wash it before reuse.

4.4 Ingestion:

If swallowed: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Rinse mouth. Do not give anything by mouth to an unconscious person.

4.5 Inhalation:

If inhaled: Move person to fresh air and keep person comfortable. 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.

5. FIREFIGHTING MEASURES

5.1 Flammable properties: (See section 9 for additional properties)

5.2 Extinguishing Media:

5.2.1 Suitable Extinguishing Media: Water Fog

5.2.2 Unsuitable Extinguishing Media: Not Applicable

5.3 Protection of Firefighters:

5.3.1 Specific Hazards Arising from the Chemical

Physical Hazards: None known

Chemical Hazards: None known

5.3.2 Protective Equipment and Precautions for Firefighters: Wear positive pressure self-contained breathing apparatus and full protective equipment. Do not breathe smoke or spray mist. Fight fire upwind. Avoid fallout and runoff. Dike to prevent entering drains, sewers, or water courses. Evacuate people downwind from fire.

5.4 Additional Information:

National Fire Protection Association (NFPA) Ratings:

Health	1
Flammability	0
Reactivity	0
Special	N/A

Hazard Rating: 4 (severe), 3 (serious), 2 (moderate), 1 (slight), 0 (minimal.)

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions: Use Personal Protective Equipment specifically listed in section 8. Remove contaminated clothing and wash affected skin areas with soap and water.

6.2 Environmental Precautions: Keep spill out of open bodies of water and municipal sewers unless allowed under NPDES (National Pollutant Discharge Elimination System) permit.

6.3 Methods of Containment:

Small Release: Soak up with inert absorbent material (e.g. sand, silica gel, universal binder, sawdust).

Large Release: Shut off release if safe to do so. Dike spill area with earth, sand or other inert absorbents to prevent runoff into drains, sewers, or waterways.

6.4 Method for Cleanup:

Small Release: After the spill is contained sweep up and shovel into containers for disposal. Care should be taken to avoid causing dust of dried material to become airborne. Wash spill area with soap and water, repeat until area is clean.

Large Release: Recover as much of the spilled product using portable pump and hoses. Treat remaining material as a small release (above).

7. HANDLING AND STORAGE

7.1 Handling: Avoid prolonged or repeated contact with the skin. Avoid contact with eyes. See section 8 for a complete list of PPE to wear when handling this product.

7.2 Storage: Store product in original labeled container in a cool, dry place. Keep container tightly closed with no exposure to air when not in use. Protect from freezing.

8. EXPOSURE CONTROL/PERSONAL PROTECTION

8.1 Exposure Guidelines:

8.1.1 OSHA (PEL are 8-hour TWA) for Calcium Carbonate technical grade (Solar Guard is 59% CaCO₃ and a liquid product):

Total Dust: 15 mg/m³

Respirable Fraction: 5 mg/m³

8.2 Engineering Controls: Use adequate exhaust ventilation to prevent inhalation of product vapors. Keep eye wash/safety shower in areas where commonly used.

8.3 Personal Protective Equipment (PPE):

8.3.1 Eye/Face Protection: Goggles or face shield

8.3.2 Skin Protection: Coveralls over long-sleeved shirt and long pants, gloves made of any waterproof material, shoes plus socks.

8.3.3 Respiratory Protection: Where airborne exposure is likely, use NIOSH/ OSHA approved respiratory protection equipment for particulates and/or organic vapors.

8.3.4 Hygiene Considerations: Wash hands thoroughly after handling this product before eating, drinking, chewing gum, using tobacco, or using the toilet. Change clothing immediately after finished handling this product.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Appearance: Thick white liquid

9.2 Odor: Sweet Spice

9.3 Odor Threshold: Not Available

9.4 pH: 8-10.8

9.5 Melting Point/Freezing Point: Data not available

9.6 Boiling Point: Data not available

9.7 Flash Point: 825 °C (1,517 °F, 1,098 K) for CaCO₃ Technical (This product is 58% CaCO₃)

9.8 Evaporation Rate: (Butyl Acetate=1) Data not available

9.9 Flammability: Not Flammable

9.10 Upper/Lower Flammability Limits: N/A

9.11 Vapor Pressure: Data not available

9.12 Vapor Density: (Air=1) Data not available

9.13 Solubility: 35%

9.14 Partition Coefficient: Data not available

9.15 Auto-ignition Temperature: Data not available

9.16 Decomposition Temperature: Data not available

9.17 Viscosity: Data not available

9.18 Specific Gravity: 1.6 [13.5 Lb. /Gal]

9.19 Storage life: At recommended conditions a minimum of 2 years

10. STABILITY AND REACTIVITY

10.1 Reactivity: Reacts with Acids

10.2 Chemical Stability: Stable under normal conditions.

10.3 Possibility of Hazardous Reactions: Reacts with acids releasing carbon dioxide gas

10.4 Conditions to Avoid: Mixing with Acids

10.5 Incompatible Materials: Acids

10.6 Hazardous Decomposition Products: None under normal conditions.

11. TOXICOLOGICAL INFORMATION

11.1 Oral: LD₅₀ > 5,000 mg/kg

11.2 Dermal: LD₅₀ >5,000 mg/kg

11.3 Inhalation: Data not available

11.4 Eye: Not irritating to the eye

11.5 Chronic/Carcinogenicity:

Not listed as a carcinogen by OSHA, NTP or IARC

11.6 Teratology: Data not available

11.7 Reproduction: Data not available

11.8 Mutagenicity: Data not available

Revisions: This SDS was reformatted to comply with the new Hazard Communication Standard.

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