

**1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY**Product Name: **Preen Mulch Plus (EPA #961-408)**Recommended use: This product is a mixed herbicide mulch for landscape use.**Supplier/Manufacturer**

Lebanon Seaboard Corporation
 1600 East Cumberland Street
 Lebanon PA 17042
 Tel: (800) 233-0628 (717-273-1685)
 Supplier Email: customerservice@lebsea.com

Emergency telephone numbers:

- Manufacturer: 800-233-0628 (717-273-1685)
- Chemtrec (Spill) 1-800-424-9300
- Prosar (Health) 888-208-1368

2. HAZARDS IDENTIFICATION**OSHA Signal Word:** Warning**EPA Signal Word:** Caution**Hazard Statements and Hazard Categories:**

H317: May cause an allergic skin reaction. (Category 1B - for Wood mulch)
 Prolonged or repeated contact may cause mild skin or eye irritation.
 Prolonged or excessive inhalation exposure may cause irritation of the respiratory tract.
 May irritate the digestive tract if ingested.
 Keep out of reach of children.

**Precautionary Statements for handling:**

P261: Avoid breathing dust.
 P272: Contaminated work clothing should not be allowed out of the workplace.
 P280: Wear protective gloves/protective clothing/eye protection/face protection.
 P333, P352: If skin irritation or rash occurs: Wash with plenty of soap and water. Seek medical advice if irritation persists.
 P363: Wash contaminated clothing before reuse.

Precautionary Statements for disposal: Dispose in accordance with all federal, state and local regulations.**Hazards not otherwise classified (HNOC):** None

Unknown acute toxicity <1% of the mixture consists of ingredients of unknown toxicity.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Weight %
Trifluralin	1582-09-8	0.0032
Isoxaben	82558-50-7	0.0008
Fuller's earth	8031-18-3	0.13 - 0.14
Crystalline Silica	14808-60-7	0.001 - 0.014
Colorants (See below for colorant identity)	Various	2
Wood bark mulch		Balance

Colorant is specific to each product color. There are 4 varieties:

Product color	Colorant ID	CAS Numbers	% in Final Product
Midnight Black	Carbon Black	1333-86-4	0.5 - 1
	Proprietary	Proprietary	1 - 1.5
Russet Red	Iron oxide	1309-37-1	1 - 1.5
	Ammonium hydroxide	1336-21-6	0.002 - 0.02
	Proprietary	Proprietary	0.5 - 1
Chestnut Brown	Iron oxide	1309-37-1	0.5 - 1
	Carbon Black	1333-86-4	0.02 - 0.1
	Ammonium hydroxide	1336-21-6	0.002 - 0.02
	Proprietary	Proprietary	0.9 - 1.5
Natural	No colorant	None	0

4. FIRST AID MEASURES

Eye Contact	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Skin Contact	Wash with soap and water. If injury occurs, if discomfort or irritation persists contact a physician.
Inhalation	If inhaled and discomfort occurs, move to fresh air, and keep person at rest in a position comfortable for breathing. If difficulty in breathing occurs and/or persists, administer oxygen and get medical attention. If medical advice is needed, have product container or label on hand.
Ingestion	Rinse mouth. Drink Plenty of water. If discomfort occurs, seek medical attention. Do not induce vomiting of an unconscious person.

Self-protection of the first aider: Use any appropriate personal protective equipment as required to avoid breathing dust, and to avoid eye and skin contact.

Most important symptoms and effects, both acute and delayed:

Symptoms: May trigger have fever or asthma, dust irritation with nasal discomfort, or skin irritation/rash in individuals sensitive to wood dusts.

Indication of any immediate medical attention and special treatment needed: Treat Symptoms.

5. FIRE FIGHTING MEASURES

Suitable extinguishing media

Use extinguishing media suitable to local circumstances and the surrounding environment. Options in this case include water, CO₂, ABC Dry Chemical extinguisher, or foam. Avoid stirring up dust with water stream.

Specific hazards arising from the chemical

Thermal decomposition can lead to release of irritating and toxic gases and vapors. In the event of fire, do not breathe fumes.

Explosion data

Sensitivity to mechanical impact: None

Sensitivity to static discharge: None

Note: Excessive amounts of any burnable dusts can produce explosive mixtures if allowed to disperse in the air in confined areas where ignition sources occur. Prevent excessive dust dispersal in areas of use, storage, or production.

Protective equipment and precautions for firefighters

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

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures

Personal Precautions	Use reasonable personal protective equipment as required to prevent contact with eyes or skin and to avoid breathing dust. Remove ignition sources prior to clean-up.
Environmental precautions	Prevent entry into waterways, sewers, basements or confined areas. Do not flush into surface water or sanitary sewer system. See Section 12 for additional ecological information.
Methods for containment	Prevent further leakage or spillage, if safe to do so.
Methods for clean-up	Use reasonable 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. Clean contaminated surface thoroughly. Soak up excess with inert absorbent material. Do not reuse container.

7. HANDLING AND STORAGE

- Safe Handling Ensure adequate ventilation, especially in confined areas. Use personal protective equipment as required. Wash hands thoroughly after handling.
- Storage Conditions Keep containers tightly closed in a cool, well- ventilated place. Keep away from food, drink, animal feed and potable water supplies. Keep out of the reach of children.
- Incompatible materials Avoid strong acids or alkali, or other reactive substances.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH*
Trifluralin (1582-09-8)	Not Established	Not Established	Not Established
Isoxaben (82558-50-7)	Not Established	Not Established	Not Established
Silica, crystalline (quartz)	0.025 mg/m ³ (respirable)	(30 mg/m ³) ÷ (%SiO ₂ + 2)	3000 mg/m ³
Nuisance Dusts	10 mg/m ³ (TWA)	15 mg/m ³ (TWA total) 50 mppcf (TWA total) 5 mppcf (TWA respirable)	Not Established

*IDLH refers to amounts that are "Immediately Dangerous to Life or Health"

Other Information: No adverse health effects expected with normal use, except for individuals with allergic sensitivities to wood dusts.

Engineering controls: Use with adequate ventilation to prevent dust buildup in air.

Individual protection measures: Wear protective gloves, protective clothing, eye protection, and face protection.

- Eye protection Safety glasses, or goggles if eye contact is likely
- Skin and Body Protection Wear protective gloves and coveralls.
- Respiratory Protection Dust mask recommended for dusty or misty conditions. If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Respiratory protection must be provided in accordance with current local regulations.
- General Hygiene When using product, do not eat, drink or smoke. Wash hands thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace. Wash contaminated clothing before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES

- Physical state Solid
- Appearance Granules
- Color Mixed, various
- Odor Slight
- Odor Threshold No information available
- pH Not applicable
- Melting point/freezing point Not applicable

Boiling point / boiling range	Not applicable
Flash point	No information available
Evaporation rate	Not applicable
Flammability (solid, gas)	Comparable to wood
Flammability Limits in Air	
Upper flammability limit:	No information available
Lower flammability limit:	No information available
Vapor pressure	Not applicable
Vapor density	Not applicable
Bulk Density	Approximately 18 Lb per cubic ft.
Water solubility	Mostly 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	Not an oxidizer

10. STABILITY AND REACTIVITY

Reactivity

Not particularly reactive.

Chemical stability

Stable.

Possibility of Hazardous Reactions

May release heat and fumes when mixed in solution with incompatible reactive materials.

Hazardous polymerization

Will not occur.

Conditions to avoid

High heat, sparks and open flames, as wood ingredients are burnable.

Incompatible materials

Strong acids or alkali, or other reactive substances.

Hazardous Decomposition Products

May emit toxic fumes under fire conditions, such as Nitrogen oxides (NOx), Ammonia, Oxides of sulfur, Hydrogen chloride and Carbon monoxide.

11. TOXICOLOGICAL INFORMATION

Routes of exposure: Ingestion, eyes (contact), skin (contact), dust inhalation

Symptoms	May irritate the digestive tract if ingested in quantity, causing nausea, vomiting and diarrhea.
Sensitization	Repeated and prolonged exposures to certain wood products can produce allergenic responses in certain individuals. Avoid repeated and prolonged contact with skin. If allergy, such as dermatitis (rash), asthma, or bronchitis develops, it may be necessary to avoid further exposure to the product.
Mutagenicity	In vitro genetic toxicity studies for trifluralin were negative in some cases and positive in other cases. Animal genetic toxicity studies were negative. (Not a significant risk at these concentrations.)

Carcinogenicity	Suspected of causing cancer. (A low incidence of urinary tract tumors was seen in only 1 of 5 chronic studies in rats with trifluralin. Trifluralin is not anticipated to be a carcinogenic risk to man.)
Oral	Low toxicity if swallowed.
Reproductive toxicity	In animal studies, isoxaben has been shown to interfere with reproduction in females.
STOT - single exposure	No information available
STOT - repeated exposure	No information available
Chronic toxicity	See sensitization
Target Organ Effects	No information available
Aspiration hazard	No information available

Trifluralin has a low toxicity if swallowed.
 Isoxaben has very low toxicity if swallowed.

12. ECOLOGICAL INFORMATION

Fertilizers may be harmful to aquatic life with short term effects, causing algal bloom and increased BOD, depending on the amount released.

- Fish: Material is practically non-toxic to aquatic organisms on an acute basis. (LC50/EC50/EL50/LL50 >100 mg/L in the most sensitive species tested).
- Birds: Material is practically non-toxic to birds on an acute basis (LD50 > 2000 mg/kg).

Use with care when applying to turf areas adjacent to any bodies of water. Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Drift and runoff from treated turf may adversely affect aquatic organisms in adjacent bodies of water. Do not apply when weather conditions favor drift from treated areas. Do not contaminate water when disposing of equipment washwater. Application around a cistern or well may result in contamination of groundwater or drinking water, particularly where soils are permeable and water table is shallow.

Persistence and degradability:	Trifluralin and isoxaben are expected to biodegrade very slowly (in the environment). Both fail to pass OECD/EEC tests for ready biodegradability.
Bioaccumulation	Bioconcentration potential of isoxaben is low, while the bioconcentration potential of Trifluralin is high.
Other adverse effects	No information available

13. DISPOSAL CONSIDERATIONS

This material, as supplied is not a hazardous waste according to federal regulations (40 CFR 261).

Disposal of wastes: Do not contaminate water, food or feed by storage or disposal. Dispose of wastes at an approved waste disposal facility in accordance with label requirements and with all federal state, and local regulations. Contact your state environmental office for information on approved waste disposal practices and facilities.

- This product is a hazardous waste material.
- EPA Waste Numbers are applicable for this product's components.
- Dispose of in accordance with Local, State, and Federal regulations.

Contaminated packaging

US Federal: special packaging considerations for pesticide containers. If the container is empty, do not reuse it. Place it in the trash, unless the label specifies a different procedure. Follow local regulations.

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14. TRANSPORT INFORMATION

DOT:	Not Regulated	ADR:	Not Regulated
Proper Shipping Name:	Non Regulated	ADN:	Not Regulated
Hazard Class:	Not Applicable	RID:	Not Regulated
IATA:	Not Regulated	IATA:	Not Regulated
Proper Shipping Name:	Non Regulated	TDG:	Not Regulated
Hazard Class:	Not Applicable	ICAO:	Not Regulated
IMDG/IMO	Not Regulated	MEX:	Not Regulated
Hazard Class	Not Applicable		
Marine Pollutant	No		

15. REGULATORY INFORMATION

General Product Information: This product is not federally regulated as a hazardous material.
Clean Air Act: No data
Clean Water Act: No data

State Right-to-Know Components:

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS#	CA	MA	MN	NJ	PA	RI
Trifluralin	1582-09-8	No	No	Mo	Yes	Yes	No

Other state regulations may apply. Check individual state requirements.

California Proposition 65: This product contains detectable quantities of chemical(s) known to the State of California to cause cancer.

CERCLA REPORTABLE QUANTITY:

This product contains the following substance(s) listed as "Hazardous Substances" under CERCLA which may require reporting of releases:

<u>Chemical Name</u>	<u>CAS Number</u>	<u>RQ</u>	<u>% in Product</u>
Trifluralin	001582-09-8	10	0.0032%

TSCA STATUS: This product is exempt from TSCA Regulation under FIFRA Section 3(2)(G)(ii) when used as a pesticide.

SARA TITLE III:

- Section 302, Extremely Hazardous Substances: None
- Section 311/312 Hazard Categories: Immediate Health Hazard. Delayed Health Hazard.
- Section 313 Toxic Chemicals: Trifluralin

16. OTHER INFORMATION

Disclaimer

The information provided in this material safety data sheet is correct to the best of our knowledge, information and belief at the date of its 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 process, unless specified in the text.