

SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Product identifier

Chemical Name	Mixture
Product Name / Trade Name	GreenSeal 2.7, 2.7 S, 2.7 W
CAS No.	Mixture

Relevant identified uses of the substance or mixture and uses advised against

Identified Use(s)	Component for the manufacture of polyurethane polymers
Uses Advised Against	None

Details of the supplier of the safety data sheet

MANUFACTURER

Green Shield Products, LLC
 4008 Louetta Rd. #464
 Spring, TX 77388-4405
 (P)832-957-2925 (F)832-957-3960
 www.greenshieldproducts.com

24 HR. EMERGENCY TELEPHONE NUMBER

CHEMTREC® (US Transportation) (800) 424-9300
CHEMTREC® (International Transportation) 1 (202) 483-7616

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

OSHA HCS (29 CFR 1910.1200)

Eye Dam. 1; Skin Irrit. 2; STOT RE 2; Skin Sens. 1

Label elements

Hazard Symbol



DANGER

Signal Word(s)

Hazard Statement(s)

H318: Causes serious eye damage.
 H315: Causes skin irritation.
 H317: May cause an allergic skin reaction.
 H373: May cause damage to organs through prolonged or repeated exposure: Oral; kidney.

Precautionary Statement(s)

Prevention

P280: Wear protective gloves/protective clothing/eye protection/face protection.
 P260: Do not breathe dust/fume/gas/mist/vapors/spray.
 P264: Wash (hands and exposed skin) thoroughly after handling.
 P272: Contaminated work clothing should not be allowed out of the workplace.

Response	<p>P303 + P361 + P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. P333+P313: If skin irritation or rash occurs: Get medical advice/attention. P363: Wash contaminated clothing before reuse.</p> <p>P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310: Get immediate medical advice/attention.</p> <p>P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting. P310: Immediately call a POISON CENTER/doctor.</p> <p>P304 + P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing. Get medical advice/attention if you feel unwell.</p>
Storage	None
Disposal	P501: Disposal should be in accordance with local, state or national legislation.
Other hazards	Toxic to aquatic life. Toxic to aquatic life with long lasting effects.
Additional Information	None

3. COMPOSITION/INFORMATION ON INGREDIENTS *

Composition/information on ingredients	%W/W	CAS No.	Hazard Statement(s)
Polyol Resin	35 - 45	Trade Secret	Skin Irrit. 2; H315 Skin Sens. 1A; H317 Eye Irrit. 2; H319 Aquatic Acute 2; H401 Aquatic Chronic 2; H411
Chlorinated phosphate resin	5 - 10	Trade Secret	Acute Tox. 4; H302
Diethylene glycol	1 - 5	111-46-6	Acute Tox. 4; H302 STOT RE 2; H373
Tertiary amines	1 - 5	Trade Secret	Flam. Liq. 3; H226 Acute Tox. 3; H331 Acute Tox. 4; H302; H312 Skin Corr. 1B; H314 Eye Dam. 1; H318 STOT SE 3; H335
Blowing Agent	4 - 12	Trade Secret	Flam. Liq. 2; H225
Blowing Agent	< 2	Trade Secret	Liquefied gas; H280
Surfactant	5 - 10	Trade Secret	Acute Tox. 4; H302, H332 Skin Irrit. 2; H315 Eye Dam. 1; H318 Aquatic Chronic 2; H411
Polymers	< 1.5	Trade Secret	Not classified as dangerous for supply/use.
Fire retardant	< 5	Trade Secret	Aquatic Acute 3; H402 Aquatic Chronic 3; H412
Polyol Resin	25 - 35	Trade Secret	Not classified as dangerous for supply/use.
Water	< 2.5	7732-18-5	Not classified as dangerous for supply/use.

Additional Information - None

4. FIRST AID MEASURES



Description of first aid measures

Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If breathing is labored, administer oxygen. Get medical advice/attention if you feel unwell.
Skin Contact	Take off immediately all contaminated clothing. Rinse skin with water/shower. If irritation (redness, rash, blistering) develops, get medical attention. Wash contaminated clothing before reuse.
Eye Contact	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical attention.
Ingestion	Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.

Most important symptoms and effects, both acute and delayed Causes serious eye damage. May cause an allergic skin reaction.

Indication of any immediate medical attention and special treatment needed IF SWALLOWED: Immediately call a POISON CENTER/doctor.

5. FIRE FIGHTING MEASURES

Extinguishing Media

-Suitable Extinguishing Media	Extinguish with water spray, dry chemical, sand or carbon dioxide.
-Unsuitable Extinguishing Media	None anticipated.

Special hazards arising from the substance or mixture None

Advice for fire-fighters Fire fighters should wear complete protective clothing including self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures Put on protective equipment before entering danger area. Wear protective gloves/protective clothing/eye protection/face protection.

Environmental precautions Contain spillages with sand, earth or any suitable adsorbent material. Do not allow to enter drains, sewers or watercourses.

Methods and material for containment and cleaning up Contain spillages with sand, earth or any suitable adsorbent material. Transfer to a container for disposal or recovery. Wash the spillage area with water. If possible prevent water running into sewers.

Reference to other sections None
Additional Information None

7. HANDLING AND STORAGE

Precautions for safe handling

Wear protective gloves/protective clothing/eye protection/face protection. Wash hands and exposed skin after use. Do not breathe dust / fume / gas / mist / vapors / spray. Contaminated work clothing should not be allowed out of the workplace.

Conditions for safe storage, including any incompatibilities

-Storage temperature

Store at room temperature. Keep container tightly closed and in a well-ventilated place.

-Incompatible materials

Isocyanates. Oxidizing agents.

8. EXPOSURE CONTROLS\PERSONAL PROTECTION

Control parameters
Occupational Exposure Limits

SUBSTANCE.	CAS No.	(8hr TWA)		(STEL)		Note:
		PEL (OSHA)	TLV (ACGIH)	PEL (OSHA)	TLV (ACGIH)	
Diethylene glycol	111-46-6	-----		-----		-----

- STEL: Short Term Exposure Limit

Exposure controls
Appropriate engineering controls

Not normally required

Personal protection equipment

Eye/face protection

Goggles giving complete protection to eyes.



Skin protection (Hand protection/ Other)

Gloves (PVC, Neoprene, or Natural rubber)



Respiratory protection

No personal respiratory protective equipment normally required.



Thermal hazards

Not normally required.

Environmental Exposure Controls

Do not allow to enter drains, sewers or watercourses.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance

Liquid

Color.

Light brown

Odor	Slightly ammoniacal
Odor Threshold (ppm)	Not available.
pH (Value)	~10
Melting Point (°C) / Freezing Point (°C)	Not available
Boiling point/boiling range (°C):	Not available
Flash Point (°C)	>93.33 (>200 °F)
Evaporation Rate	Not available.
Flammability (solid, gas)	Not applicable.
Explosive Limit Ranges	Not available.
Vapour pressure (Pascal)	~68947
Vapour Density (Air=1)	Not available
Density (g/ml)	Not available
Specific Gravity (g/ml)	1.16 – 1.19
Solubility (Water)	Slightly soluble
Solubility (Other)	Not available.
Partition Coefficient (n-Octanol/water)	Not available.
Auto Ignition Point (°C)	Not available.
Decomposition Temperature (°C)	Not available.
Kinematic Viscosity (cSt)	~588 @25°C
Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.
Other information	Not available.

10. STABILITY AND REACTIVITY

Reactivity	Stable under normal conditions.
Chemical stability	Stable.
Possibility of hazardous reactions	This product will react with isocyanates. The reaction is very exothermic and may produce excessive amounts of heat.
Conditions to avoid	Incompatible materials.
Incompatible materials	Isocyanates. Oxidizing agents.
Hazardous decomposition product(s)	Combustion or thermal decomposition will evolve toxic and irritant vapours; acrid smoke. Carbon monoxide, Carbon dioxide, nitrogen oxides.

11. TOXICOLOGICAL INFORMATION

Exposure routes: Inhalation, Skin Contact, Eye Contact

Information on toxicological effects (by analogy with similar materials):

Acute toxicity (estimated / calculated)	Oral: LD50: > 2000 mg/kg (rat) Dermal: LD50: > 2000 mg/kg (rat)
Corrosivity / Irritation	Causes skin irritation. Causes serious eye damage.
Sensitization	May cause sensitization by skin contact.
Repeated dose toxicity	May cause damage to organs through prolonged or repeated exposure: Oral; kidney.
Mutagenicity	Not to be expected.
Carcinogenicity	Not to be expected.

NTP	IARC	ACGIH	OSHA
No.	No.	No.	No.

Toxicity for reproduction	Not to be expected.
Other information	None known.

12. ECOLOGICAL INFORMATION
Ecotoxicity

Acute toxicity (estimated / calculated)

 LC50(96 hour): 8 - 10 mg/l (fish)
 EC50(48 hour): 6 - 10 mg/l (Daphnia magna)
 EC50 (72 hour): 5 - 10 mg/l (algae)

Long Term Toxicity

Toxic to aquatic life with long lasting effects.

Persistence and degradability

Not readily biodegradable.

Bioaccumulative potential

No data.

Mobility in soil

No data.

Results of PBT and vPvB assessment

Not classified as PBT or vPvB.

Other adverse effects

None known.

13. DISPOSAL CONSIDERATIONS
Waste treatment methods

Disposal should be in accordance with local, state or national legislation. Consult an accredited waste disposal contractor or the local authority for advice.

Additional Information

None known.

14. TRANSPORT INFORMATION
UN number
Proper Shipping Name

Not classified as dangerous for transport.

Transport hazard class(es)
Packing group
Environmental hazards
Special precautions for user

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: Not applicable

15. REGULATORY INFORMATION
Safety, health and environmental regulations/legislation specific for the substance or mixture:
TSCA (Toxic Substance Control Act) - Inventory Status: All components listed or polymer exempt.

Designated Hazardous Substances and Reportable Quantities (40 CFR 302.4):

Chemical Name	CAS No.	Typical %wt.	RQ (Pounds)
None	-----	-----	-----

SARA 311/312 - Hazard Categories:
 Fire Sudden Release Reactivity Immediate (acute) Chronic (delayed)

SARA 313 - Toxic Chemicals (40 CFR 372):

Chemical Name	CAS No.	Typical %wt.
None	-----	-----

SARA 302 - Extremely Hazardous Substances(40 CFR 355):

Chemical Name	CAS No.	Typical %wt.	RQ (Pounds)	TPQ (Pounds)
None	-----	-----	-----	-----

Proposition 65 (California):

Chemical Name	CAS No.	Typical %wt.	Hazards
None	-----	-----	-----

16. OTHER INFORMATION

The following sections contain revisions or new statements: 1 - 16.

Hazard Statement(s) Listed in: SECTION 3

- H225: Highly flammable liquid and vapour.
- H226: Flammable liquid and vapour.
- H280: Contains gas under pressure; may explode if heated.
- H302: Harmful if swallowed.
- H312: Harmful in contact with skin.
- H314: Causes severe skin burns and eye damage.
- H315: Causes skin irritation.
- H317: May cause an allergic skin reaction.
- H318: Causes serious eye damage.
- H319: Causes serious eye irritation.
- H331: Toxic if inhaled.
- H332: Harmful if inhaled.
- H335: May cause respiratory irritation.
- H373: May cause damage to organs through prolonged or repeated exposure: Oral, kidney
- H401: Toxic to aquatic life.
- H402: Harmful to aquatic life.
- H411: Toxic to aquatic life with long lasting effects.
- H412: Harmful to aquatic life with long lasting effects.

Additional Information: None.

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