



1. IDENTIFICATION

1.1 Product Identifier:	Cornbelt® Gardian Plus®
1.2 Alternate Names:	None
1.3 Chemical Class:	Adjuvant
1.4 Active Ingredient:	A proprietary blend of surfactants, modified seed oil and nitrogen fertilizer solution.
1.5 Recommended Use/Restrictions:	Tank mix adjuvant. Please see the label for specific recommendations regarding this product.
1.6 Supplier's Details:	Van Diest Supply Company 1434 220 th St. Post Office Box 610 Webster City, Iowa 50595
1.7 Emergency Phone Number:	FOR CHEMICAL EMERGENCY, SPILL, LEAK, FIRE, EXPOSURE, OR ACCIDENT CALL CHEMTREC - DAY OR NIGHT 1-800-424-9300

2. HAZARD IDENTIFICATION

2.1 Health Hazards:	Serious eye damage/eye irritation Skin corrosion/irritation	Category 2A Category 2
2.2 Environmental Hazards:		



Warning

Hazards:

H315 Causes skin irritation.

H319 Causes serious eye irritation.

Prevention:

P264 Wash thoroughly after handling.

P280 Wear protective gloves/eye protection/face protection.

Response:

P302+P352 **IF ON SKIN:** Wash with plenty of soap and water.

P332+P313 **IF SKIN IRRITATION OCCURS:** Get medical advice/attention.

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+313 **IF EYE IRRITATION PERSISTS:** Get medical advice/attention.

P362 Take off contaminated clothing and wash before reuse.

Storage:

P404 Store in a closed container.

P401 Store at ambient temperature.

Disposal:

P501 Dispose of contents and container in accordance with federal, state, and local regulations.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Material	Common Name/ Synonyms	CAS #	% in Formulation
A proprietary blend of nonionic surfactants plus polyacrylamide polymer in an electrolyte solution. [1][2]	Cornbelt® Gardian Plus®	Proprietary	100%

[1] Substance classified with a health or environmental hazard.

[2] Substance with a workplace exposure limit.

This safety data sheet is not a guarantee of product specification. Specific ingredient content may be found on the product label.

4. FIRST AID MEASURES

4.1 General First Aid Recommendations are as follows:	Eye Contact:	Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids open. Seek medical attention if symptoms persist.
	Skin Contact:	Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognized skin cleanser. Do NOT use solvents or thinners.
	Ingestion:	If accidentally swallowed obtain immediate medical attention. Keep at rest. Do NOT induce vomiting unless told to do so by a poison control center, physician, or hospital. Do not give anything by mouth to an unconscious person.
	Inhalation:	Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give artificial respiration. If unconscious place in the recovery position and obtain immediate medical attention. Give nothing by mouth.
4.2 Most Important Symptoms/Effects (acute and delayed):	Overexposure by contact may cause serious irritation to skin and eyes.	
4.3 Indication of Need for Immediate Medical Attention:	If poisoning is suspected, or any symptoms are serious, immediately contact a poison control center, physician, or nearest hospital for instructions. Inform the contact of the name of the product, the type and amount of exposure, and symptoms the patient is experiencing. Repeated gross overexposure may cause injury to eyes and skin. Seek medical advice if severe or persistent eye or skin irritation occurs.	

5. FIREFIGHTING MEASURES

5.1 Suitable Extinguishing Media:	Recommended extinguishing media: alcohol resistant foam, CO ₂ , powder.
Unsuitable Extinguishing Media:	Water jet. Class A-only fire extinguishers, such as water based extinguishers, are not ideal for small fires on this material.
5.3 Specific Hazards Arising from the Chemical:	Irritating or toxic substances may be emitted upon thermal decomposition. Thermal decomposition products may include oxides of carbon, nitrogen, and sulfur as well as smoke and fume.
5.4 Special Protective Equipment and Precautions for Firefighters:	Evacuate area. Prevent contamination from run-off of adjacent areas, streams, drinking water and sewers. Do not flush down sewers or other drainage systems. Exposed firefighters must wear standard protective equipment and in enclosed areas, a self-contained breathing apparatus. Use water-spray to cool fire exposed surfaces and personnel. Product dissolves in water.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions, Protective Equipment, and Emergency Procedures:	Remove sources of ignition, do not turn lights or unprotected electrical equipment on or off. In case of a major spill or spillage in a confined space, evacuate the area and check that solvent vapor levels are below the Lower Explosive Limit before reentering.
6.2 Methods and Material for Containment and Cleanup:	Ventilate the area and avoid breathing vapors. Take the personal protective measures listed in Section 8. Contain and absorb spillage with non-combustible materials e.g. sand, earth, or vermiculite. Place in closed containers outside buildings and dispose of according to the Waste Regulations (see Section 13). Clean, preferably with a detergent. Do not use solvents. Do not allow spills to enter drains or watercourses. If drains, sewers, streams or lakes are contaminated, inform the local water company immediately. In the case of contamination of rivers, streams or lakes, the Environmental Protection Agency should also be informed.

7. HANDLING AND STORAGE

7.1 Conditions for Safe Handling:	Handle containers carefully to prevent damage and spillage. Do not get in eyes, on skin or on clothing. Do not breathe vapors or mists. Keep container closed. Use only with adequate ventilation. Use good personal hygiene practices. Wash hands before eating, drinking, or smoking. Remove contaminated clothing and clean before reuse. Destroy contaminated belts and shoes and other items that cannot be decontaminated. See Section 2 (Storage) for further details.
7.2 Conditions for Safe Storage, Including any Incompatibilities:	Store at ambient temperature. Keep containers tightly closed and upright when not in use. Protect containers against physical damage. Keep away from incompatible materials. Incompatible materials: strong acids, strong bases, strong oxidizers. Store at ambient temperatures. See Section 2 (Storage) for further details.

8. EXPOSURE CONTROL/PERSONAL PROTECTION**8.1 Occupational Exposure Limits:**

Material	CAS #	OSHA PEL	ACGIH TLV	Carcinogen		
				NTP	IARC	OSHA
Glycerol	56-81-5	15 mg/m ³	10 mg/m ³	No	No	No

8.2 Engineering Controls:

Provide adequate ventilation. Where reasonably practicable, this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and any vapor below occupational exposure limits suitable respiratory protection must be worn.

8. EXPOSURE CONTROL/PERSONAL PROTECTION, continued

8.3 Personal Protective Equipment: The following recommendations are suitable for small, incidental contact with this material. Recommendations for commercial or on-farm application of this chemical may be found on the container label. See Section 2 (Prevention) for further details.

Eye Contact:	Wear safety eyewear, e.g. safety spectacles, goggles or visors to protect against the splash of liquids.
Skin Contact:	Overalls which cover the body, arms and legs should be worn. Skin should not be exposed. All parts of the body should be washed after contact.
Ingestion:	Do not allow eating, drinking, tobacco use, or cosmetic application in areas where there is a potential for exposure to this material.
Inhalation:	If workers are exposed to concentrations above the exposure limit, they must use the appropriate certified respirators.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Slightly hazy, yellow liquid	Upper/Lower Explosive Limit:	ND
Odor:	Sweet	Vapor Pressure:	ND
Odor Threshold:	ND	Vapor Density:	Heavier than air
pH:	5.0 - 6.2 (1% in water)	Specific Gravity @ 68°F:	1.13 -1.15
Melting Point:	ND	Solubility:	Soluble in water
Boiling Point:	>212°F	Partition Coefficient (<i>n</i>-Octanol/Water):	ND
Flash Point:	>200°F TCC	Auto-Ignition Temperature:	ND
Evaporation Rate:	ND	Decomposition Temperature:	ND
Flammability:	NA for solid/gas	Viscosity:	ND

ND=No Data; NA=Not Applicable

10. STABILITY AND REACTIVITY

10.1 Reactivity:	Non-reactive under normal conditions.
10.2 Chemical Stability:	Stable under normal conditions.
10.3 Possibility of Hazardous Reactions:	Will not occur.
10.4 Conditions to Avoid:	Contact with incompatible materials. Extreme heat, open flame, sparks, and other sources of ignition.
10.5 Incompatible Materials:	Strong oxidizers, strong acids, strong bases
10.6 Hazardous Decomposition Products:	Thermal decomposition will produce oxides of carbon and nitrogen.

11. TOXICOLOGICAL INFORMATION

11.1 Likely Routes of Exposure:	Overexposure may occur by inhalation, ingestion, and absorption.
11.2 Skin Corrosion/Irritation:	This material causes skin irritation. (Category 2)
11.3 Serious Eye Damage/Irritation:	This material causes serious eye irritation. (Category 2)
11.4 Respiratory or Skin Sensitization:	This material is not suspected of being a sensitizer.
11.5 Germ Cell Mutagenicity:	This material is not suspected of being mutagenic.

11. TOXICOLOGICAL INFORMATION, continued

11.6 Carcinogenicity: This material is not suspected of being a carcinogen.

Material	Carcinogen		
	NTP	IARC	OSHA
Glycerol	No	No	No
<i>n</i> -Butanol	No	No	No
Diethanolamine	No	No	No
2-Butoxy-ethanol	No	No	No

11.7 Reproductive Toxicity: This material is not suspected of being a teratogen.

11.8 STOT-Single Exposure: Overexposure by vapor inhalation is unlikely under normal handling conditions.

11.9 STOT-Long Term Exposure: This material is not linked to long-term exposure effects.

11.10 Aspiration Hazard: This product does not meet the definition of an aspiration hazard.

11.11 Acute Toxicology:

Ingestion:	Oral LD ₅₀	>5,000 mg/kg (rat)
Skin Contact:	Dermal LD ₅₀	>5,000 mg/kg (rabbit)
Inhalation:	Inhalation LC ₅₀ (dust/mist)	No data

12. ECOLOGICAL INFORMATION

12.1 Ecotoxicity: This product is not expected to be toxic in the aquatic environment.

12.2 Persistence and Degradability: This product is readily biodegradable and is not readily transformed by photolysis. Material is expected to degrade rapidly in air.

12.3 Bioaccumulative Potential: Bioaccumulation is not expected to be significant.

12.4 Mobility in Soil: No data.

13. DISPOSAL CONSIDERATIONS

Do not allow into drains or watercourses. Rinse containers thoroughly three times and use rinsate according to label instructions. Dispose of product containers, waste containers, and residues according to local, state, and federal regulations. All recovered materials must be packaged, labeled, transported, and disposed or reclaimed in conformance with applicable laws and in conformance with good engineering practices.

14. TRANSPORT INFORMATION

14.4 DOT Classification: The material is not regulated.

15. REGULATORY INFORMATION**15.1 EPCRA SARA Title III Classifications:**

Section 311/312 Hazard Classes:

No ingredients listed.

CERCLA/SARA 302 Reportable Quantity:

No ingredients listed.

15.2 Proposition 65 - Carcinogens (>0.0%):

1,4-dioxane, Oxirane

15.3 Proposition 65 - Female Reproductive Toxins (>0.0%):

Oxirane

15.4 Proposition 65 - Male Reproductive Toxins (>0.0%):

Oxirane

15.5 N.J. RTK Substances (>1%):

Ammonium nitrate (solution), glycerol

15.6 Penn RTK Substances (>1%):Ammonium nitrate (solution), glycerol, sulfuric acid
diammonium salt**16. OTHER INFORMATION**

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The information and recommendations contained in this safety data sheet are understood to be correct by Van Diest Supply Company. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. Information in this SDS follows different criteria from, and serves a different purpose, than the product labeling.