



# Material Safety Data Sheet

FOR EMERGENCY, SPILL, LEAK, FIRE, EXPOSURE, OR ACCIDENT, CALL:  
CHEMTREC 1-800-424-9300

Section 1—Chemical Product and Company Identification		
Product Name:	AgriSolutions™ Cornerstone® Plus	EPA Reg. No. 1381-192
Common Name:	Herbicide	
Chemical Description:	Isopropylamine salt of Glyphosate	
<b>Manufacturer's Name:</b> WINFIELD SOLUTIONS, LLC P. O. Box 64589 St. Paul, MN 55164-0589	<b>Medical Emergency Telephone Number:</b> 1-877-424-7452 <b>MSDS Revision Date:</b> 05/10/2010 Supersedes document dated 09/13/2007	

Section 2—Hazards Identification
<b>Emergency Overview:</b> Clear pale yellow to amber liquid with no odor. Moderate eye irritant. May react with metals such as galvanized or unlined steel to produce hydrogen gas which could form a highly combustible gas mixture. <b>CAUTION:</b> Keep out of reach of children. <b>Route(s) of Entry:</b> Eyes, Inhalation, Skin, and Ingestion.
<b>Health Hazards (Acute and Chronic):</b> <b>Inhalation:</b> Inhalation of mist not likely to cause irritation. <b>Eyes:</b> May cause moderate irritation. <b>Skin:</b> Contact with skin not likely to cause irritation. <b>Ingestion:</b> No more than slightly toxic by ingestion.
<b>Medical Conditions Generally Aggravated by Exposure:</b> None known. Preexisting respiratory conditions may be aggravated by exposure to mists.

Section 3—Composition Information on Ingredients		
Ingredient	% (wt)	CAS reg. #
Isopropylamine salt of glyphosate	41.0%	38641-94-0
Inert Ingredients*	59.0%	

\* Trade secret information available as provided in 29 CFR 1910.1200(i)

NFPA HAZARD RATING:			
0	Least		
1	Slight	2	Health
2	Moderate	0	Flammability
3	High	1	Reactivity
4	Severe		

Section 4—First Aid Measures	
<b>Inhalation:</b>	Remove person to fresh air and assist breathing as needed. Seek medical attention if irritation occurs.
<b>Ingestion:</b>	Seek medical attention or call a poison control center immediately.
<b>Eyes:</b>	Flush with clean water for at least 15 minutes. Lift eyelids to facilitate irrigation. Remove contact lenses, if present, after the first 5 minutes, and then continue rinsing. Seek medical attention if eye irritation persists.
<b>Skin:</b>	Remove contaminated clothing and wash before re-using. Flush skin with water, and then wash with soap and water. Seek medical attention if skin becomes irritated.

After first aid, get appropriate in-plant, paramedic, or community medical support. Have the product container or label with you when you call a poison control center or doctor or when going for treatment.

### Section 5—Fire and Explosion Hazard Data

**Extinguishing Media:** Use water spray, foam or dry chemical.

**Special Fire Fighting Procedures:** Wear self-contained breathing apparatus and full bunker gear. Smoke and fumes from fire may contain hazardous components. Evacuate area and fight fire from upwind at a safe distance to avoid hazardous vapors and decomposition products. Foam or dry chemical extinguishing systems are recommended to prevent environmental damage due to water run off.

**Hazardous Combustion Products:** Carbon monoxide, nitrogen oxides and phosphorous oxides

**Unusual Fire and Explosion Hazards:** May decompose in fire due to releasing irritating or toxic gases.

### Section 6—Accidental Release Measures

**Small Spills:** Clean-up personnel should follow recommendations in Section 8. Absorb small spills on sand, vermiculite, or other inert absorbent. Place contaminated material in appropriate container for disposal.

**Large Spills:** Clean-up personnel should follow recommendations in Section 8.

**Containment:** Do not release into sewers or waterways. Dike spills to prevent contamination to water supplies. Contain spills and absorb liquids by covering with clay or other absorbent material. Vacuum, scoop, or sweep up waste and place in a container for disposal. After removal, scrub the area with detergent and water and neutralize with dilute alkaline solutions of soda ash, or lime.

### Section 7—Precautions for Safe Handling and Use

**Precautions to Be Taken in Handling and Storage:** Store in cool, dry areas away from children, feed and food products and sources of heat. Store in original container with lid tightly closed. Store above 15°F (-10°C). If crystallized, warm to 80-90°F and re-dissolve by shaking container before using product.

**Other Precautions:** Consult Local, State, and Federal regulations pertaining to storage and disposal.

### Section 8—Control Measures/Personal Protection

**Respiratory Protection:** Seek professional advice prior to respirator selection and use. Follow OSHA respirator regulations (29 CFR 1910.134) and, if necessary, wear a properly FIT TESTED MSHA/NIOSH-approved respirator.

**Ventilation:** **Local Exhaust:** Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs. Local exhaust ventilation is preferred.

**Protective Gloves:** Wear waterproof gloves when mixing, loading or cleaning equipment.

**Eye Protection:** Wear protective eyeglasses or chemical safety goggles. Contact lenses are not eye protective devices.

**Other Protective Clothing or Equipment:** Wear long-sleeved shirt, long pants, and shoes plus socks.

**Work/Hygienic Practices:** Never eat, drink, nor smoke in work areas. Practice good hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics.

### Section 9—Physical/Chemical Characteristics

<b>Physical State:</b>	Liquid	<b>Specific Gravity (H<sub>2</sub>O=1):</b>	1.15 – 1.21
<b>Vapor Pressure (mm Hg):</b>	Not determined	<b>Freezing Point:</b>	Not determined
<b>Vapor Density (Air=1):</b>	Not determined	<b>Boiling Point:</b>	Not determined
<b>Solubility in Water (wt %):</b>	Entirely soluble	<b>pH:</b>	4-5
<b>Appearance and odor:</b>	Clear pale yellow to amber liquid with no odor	<b>Flash Point:</b>	Will not flash

### Section 10—Reactivity Data

**Stability:** Product stable at room temperature in closed containers under normal storage and handling conditions. May decompose if heated.

**Chemical Incompatibilities:** Strong oxidizers or bases, mild and galvanized steel

**Conditions to Avoid:** Avoid temperatures above 115°F (46°C) or below 15°F (-10°C)

**Hazardous Decomposition Products:** Carbon monoxide, nitrogen oxides and phosphorous oxides

**Hazardous Polymerization:** Product will not undergo polymerization.

### Section 11—Toxicological Information

Eye Effects: Moderate irritant  
Skin Effects: Mild irritant; LD50 > 5,000 mg/kg (male rats)  
Acute Inhalation Effects: LC50 > 2.5 mg/L  
Acute Oral Effects: LD50 > 5,000 mg/kg  
Chronic Effects: Not determined  
Mutagenicity: No evidence of mutagenic effects during *in vivo* or *in vitro* studies  
Teratogenicity: Not determined

Carcinogenicity: NTP: Not listed IARC: Not listed OSHA: Not listed

### Section 12—Ecological Information

Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwaters.

Fish Toxicity (Glyphosate acid):  
96 hour LC50 – Rainbow trout, 8.2 mg/L; 96 hour LC50 – Bluegill, 5.8 mg/L

Avian Toxicity (Glyphosate acid):  
Oral LD50 – Bobwhite Quail, >3,800 mg/kg

Bee Toxicity: Non-toxic

### Section 13—Disposal Considerations

**Waste:** Dispose of in accordance with applicable Federal, state and local laws and regulations.

**Container:** Triple rinse (or equivalent) the empty containers. Then offer for recycling or reconditioning.

**RCRA characteristics:** None

### Section 14—Transport Information

Not regulated by the U.S. DOT as a hazardous material.

### Section 15—Regulatory Information

TSCA Inventory: Not determined

SARA Title III, Section 302: None listed

SARA Title III, Section 311/312:	Immediate: Yes	Delayed: No
Sudden Release of Pressure: No	Fire: No	Reactive: No

SARA Title III, Section 313: None listed

CERCLA: None listed

**PROPOSITION 65: WARNING:** This product may contain chemicals known to the State of California to cause cancer and birth defects or reproductive harm.

### Section 16—Other

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