

SAFETY DATA SHEET

Threshold Crop Kicker


Date Prepared: 10/6/2015

Replaces: All Previous

SECTION 1. IDENTIFICATION

Product Name: Threshold Crop Kicker
 Synonyms: None
 Use: Agricultural, Liquid Micronutrient Fertilizer
 Manufactured For: Agri-Business Technologies, Inc.
 1102 Third Avenue
 Albany, GA 31707
 Phone: 229-436-4677
 Chemtrec (Emergency) Phone: 800-424-9300

SECTION 2. HAZARDS IDENTIFICATION

Pictogram	Signal Word	Hazard Class	Hazard Category	Hazard Statement
	WARNING	Skin Irritation Eye Irritation	Cat 2 Cat 2A	Causes skin irritation Causes serious eye irritation
Precautionary Statements:	<p>Prevention: Wash thoroughly after handling. Wear protective gloves, chemical splash proof goggles, and face protection.</p> <p>Response: In case of fire, use extinguishing media for surrounding fire</p> <p><u>If on skin:</u> Wash with plenty of water. Take off contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical attention.</p> <p><u>If in eyes:</u> Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical attention.</p> <p>Disposal: Dispose of contents/containers in accordance with local/regional/national regulations (See Section 13 of SDS). Containers may be triple rinsed and offered for recycling.</p>			

SECTION 3. COMPOSITION

Material	CAS #	EINECS #	%WT
Potassium Nitrate	7757-79-1	231-818-8	13%
Urea	57-13-6	200-315-5	Proprietary blend of materials not classified as hazardous or are below de minimus cut off concentrations
Ammonium Polyphosphate	68333-79-9	269-789-9	
Water	7732-18-5	231-791-2	

See product label for guaranteed analysis.

SECTION 4. FIRST AID MEASURES	
General:	In case of persisting adverse effects consult a physician. Treat symptomatically.
Ingestion:	Rinse mouth. Do NOT induce vomiting. Drink large amounts of water. Never give anything by mouth to an unconscious person. Call doctor or poison control.
Skin Contact:	Remove contaminated clothing. Wash with soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention.
Inhalation:	Remove to fresh air and keep at rest in a position comfortable for breathing. Get medical attention for any breathing difficulty.
Eye Contact:	Rinse cautiously with water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Acute Exposure Symptoms:	Redness or irritation to exposed skin and eyes. Ingestion may lead to gastrointestinal disturbances such as Abdominal cramps, vomiting, bloody diarrhea, weakness.
Chronic Exposure Symptoms:	Not available

SECTION 5. FIRE FIGHTING MEASURES	
Extinguishing Media:	Water spray is recommended. Halon, foam, dry chemical, CO2 or any ABC class extinguisher are acceptable. Use extinguishing agent most appropriate to surrounding materials. Cool containers with water spray to avoid rupture due to thermal expansion.
Specific Hazards:	This product is an aqueous mixture which will not burn. Under fire conditions, this product may behave as an oxidizer if evaporates to dryness. Violent combustion or explosion when involved in fire can occur. This material may decompose and produce acrid vapors, ammonia, phosphates and oxides of nitrogen and carbon. For safety, avoid water spray with full jet to prevent spread of product.
Protective Equipment and Precautions for Fire-Fighters:	Wear self-contained breathing apparatus (SCBA) and full protective gear. Avoid inhaling combustion products. Fire run-off should be contained to prevent possible environmental damage.
NFPA Rating:	Health: 1, Fire: 0, Reactivity: 0

SECTION 6. ACCIDENTAL RELEASE MEASURES	
Precautions:	Isolate area. Keep unnecessary personnel away. Avoid splashing or spraying.
Protective Equipment:	Impervious gloves (rubber, neoprene or nitrile), Long sleeved clothing. Chemical splash-proof goggles, face shield Chemical resistant apron and/or rubber boots may be needed.
Containment:	Stop flow of material if safe to do so. Dike area with diatomaceous earth or sand and maximize recovery. Do not absorb into sawdust or other combustible materials. Prevent spillage from entering drains or open bodies of water.
Clean Up:	Pump into a suitable tank or absorb with diatomaceous earth or sand. Sweep up and place into suitable containers for agronomical land application at recommended rates or dispose of in accordance with local/regional/national regulations (See Section 13 of SDS).

SECTION 7. HANDLING AND STORAGE	
Precautions for safe handling:	Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. Do not eat, drink or use tobacco products when handling this material. Apply product in open areas. Keep away from children and pets. Do not contaminate feed, seed or any water sources. Launder work clothes frequently and separate from other laundry.
Conditions for safe storage:	Store in a well-ventilated, cool, dry place, away from direct sunlight, sources of intense heat, or where freezing is possible. Keep containers tightly closed when not in use. Do not let product go below 35°F. Inspect all incoming containers before storage, to ensure containers are properly labeled and not damaged. Do not store on wooden floors. Store in polyethylene, polypropylene, fiberglass or 316L stainless steel.
Incompatibilities:	Flammable and combustible materials, strong reducing agents and bases (such as ammonium hydroxide), finely powdered metals. Keep away from intense heat or fire. Not compatible with copper, zinc, aluminum or their alloys (e.g. brass, galvanized steel). Storage containers, piping and handling equipment should not be made of these materials.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION			
Component Exposure Limits:	Potassium Nitrate	Not Established	PEL, OSHA
		Not Established	TWA, ACGIH
		Not Established	IDLH, NIOSH
		Not Established	REL, NIOSH
		Not Established	STEL, NIOSH
	Urea	Not Established	PEL, OSHA
		10 mg/m ³	TWA, ACGIH (as dust)
		Not Established	IDLH, NIOSH
		Not Established	REL, NIOSH
		Not Established	STEL, NIOSH
Engineering Controls:	Provide local exhaust ventilation and wash facilities.		
Personal Protective Equipment:	<u>Eyes:</u> Chemical splash-proof goggles (where splashing is possible) <u>Skin:</u> Impervious gloves (rubber, neoprene or nitrile), long sleeved clothing. Chemically resistant apron is recommended. <u>Respiratory:</u> None required for ambient air concentrations (i.e. in the open under normal agronomic conditions) not exceeding occupational exposure limits. Respiratory protection may be required in the event of a spill in an enclosed area. Use a NIOSH/MSHA approved SCBA with full face piece operated in a positive pressure mode.		
General:	Eye wash stations and safety shower required.		

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES			
Appearance:	Clear, green Liquid		
Odor:	Odorless	UEL / LEL:	Not Applicable
Odor Threshold:	Not Applicable	Vapor Pressure:	Similar to water
pH:	6.5 to 7.5	Density:	1.20 to 1.22 g/cm ³
Melting/Freezing Point:	< 0°C (32°F)	Solubility:	Water
Boiling Point:	> 100°C (>212°F)	Log_{ow}:	Not Available
Flash Point:	Not Applicable	Auto Ignition Temp:	Not Applicable
Evaporation Rate:	Similar to water	Decomposition Temp:	Not Available
Flammability (Solid/Gas):	Not Applicable	Viscosity	Not Available

SECTION 10. STABILITY AND REACTIVITY	
Reactivity:	Product may act as an oxidizer when evaporated to dryness
Chemical Stability:	Stable under normal conditions
Possibility of Hazardous Reactions:	Hazardous polymerization will not occur.
Conditions to avoid:	Avoid exposure to extreme temperatures, contact with incompatible chemicals and all contact with combustible materials. Elevated temperatures may cause containers to rupture due to thermal expansion.
Incompatible Materials:	Flammable and combustible materials, strong reducing agents (such as ammonium hydroxide), finely powdered metals.
Hazardous Decomposition Products:	Potassium compounds, phosphates, ammonia and nitrogen oxides.

SECTION 11. TOXICOLOGICAL INFORMATION	
Acute Toxicity:	LD50 oral (rat): > 2000 for all materials in blended product
Likely Routes of Exposure:	Eye contact or skin absorption
Symptoms and Signs of Exposure:	<u>Eyes:</u> Causes irritation. May result in redness, tearing and blurred vision. <u>Skin:</u> Causes irritation to the skin. May result in redness, itching and pain. <u>Ingestion:</u> Irritating to gastrointestinal tract. Abdominal pain, burning sensation, upset stomach, abdominal cramps, vomiting, bloody diarrhea and weakness may occur. The nitrate component may reduce the blood's ability to transport oxygen causing headache, fatigue, dizziness and blue lips and skin (methemoglobinemia). Symptoms may be delayed. <u>Inhalation:</u> May cause irritation to the respiratory tract.
Chronic Effects:	None known
Carcinogenic:	None of this product's components are listed by ACGIH, OSHA, NIOSH or NTP as carcinogenic. IARC: 2A Probably carcinogenic to humans (Nitrates (ingested) under conditions that result in endogenous nitrosation)
Mutagenicity:	Not Available
Reproductive Toxicity:	Not Available

SECTION 12. ECOLOGICAL INFORMATION	
Ecotoxicity:	In high concentrations, this product may be harmful to both terrestrial and aquatic plant or animal life.
Other Adverse Effects:	Inorganic phosphates have the potential to increase the growth of freshwater algae, whose eventual death will reduce the available oxygen for aquatic life.
Ecotoxicity:	Potassium Nitrate: LC50 (48 hr) Daphnia magna (Water flea): 490 mg/L. Freshwater; static LC50 (72 hr) Lepomis macrochirus (bluegill): 3200 mg/L. Static Urea: LC50 (24 hr) Daphnia magna (Water flea): > 10000 mg/L. Freshwater; static LC50 – Poecilia reticulata (guppy): 17,500 mg/L for 96 hrs Ammonium Polyphosphate: LC50 (96 hr) Oncorhynchus mykiss (Rainbow Trout): >101 mg/L

SECTION 13. DISPOSAL CONSIDERATIONS	
General Information:	As packaged, this product is a D001 ignitable waste per 40 CFR 261; applicable to wastes containing this product.
Disposal Instructions:	Agronomical land application at recommended rates or dispose of in accordance with local/regional/national regulations. Containers may be triple rinsed and offered for recycling.

SECTION 14. TRANSPORT INFORMATION	
This material is not hazardous as defined by 49 CFR 172.101 by the US Department of Transportation	
Proper Shipping Name:	Not Applicable
Hazard Class:	Not Applicable
UN Identification #:	Not Applicable
Packing Group:	Not Applicable
Required Label(s):	Not Applicable
Emergency Response Guide Number:	Not Applicable
Marine Pollutant:	No
Special Provisions for Transport	Not classified as a Division 5.1 Oxidizer – 49 CFR 172.102 Special Provisions 58

SECTION 15. REGULATORY INFORMATION	
TSCA Inventory Status	All intentional ingredients listed on the TSCA inventory.
DSCL (EEC) Status	All intentional ingredients listed on the DSCL inventory.
United States – SARA Hazard Category:	This product has been reviewed according to the EPA Hazard Categories promulgated under Sections 311 and 312 of Title III of the Superfund Amendments and Reauthorization Act (SARA) and is considered, under applicable definitions, to meet the following categories: Fire – No, Pressure – No, Acute – Yes, Chronic – No, Reactive – No
SARA Title III Information:	This product contains the following substances subject to the reporting requirements of Title III (EPCRA) of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:
Potassium Nitrate	CERCLA RQ (pounds): No SARA Reporting, 302: No SARA Reporting, 304: No SARA Reporting, 313: Yes 1.0% de minimus concentration (N511, Water Dissociable Nitrate)
All other components	CERCLA RQ (pounds): No SARA Reporting, 302: No SARA Reporting, 304: No SARA Reporting, 313: No
Federal Insecticide, Fungicide, and Rodenticide Act	This product is not a pesticide.
State Regulations:	Other state regulations may apply. Check individual state requirements.
Potassium Nitrate CAS No. 7757-79-1	Appears on one or more of the following state hazardous substance lists: NJ
SECTION 16. OTHER INFORMATION	
Date of Revision:	10/6/2015, revision prepared in accordance with 29 CFR 1910.1200 Appendix D to meet Global Harmonization Standards.
Disclaimer:	The information contained in this SDS refers only to the specific material designated and does not relate to any process or use with any other materials. This information is based on data believed to be accurate and reliable as of the date hereof. It is intended for use by persons possessing technical knowledge at their own discretion and risk. Because safety standards and regulations are subject to change and because Agri-Business Technologies, Inc. has no continuing control over the material, those handling, storing or using the material should satisfy themselves that they have current information regarding the particular way the material is handled, stored or used and that the same is done in accordance with federal, state and local law. No warranty, expressed or implied, and no liability is assumed by Agri-Business Technologies, Inc. in conjunction with the use of this information. Nothing herein is to be construed as a recommendation to infringe any patents.