

SAFETY DATA SHEET

Section 1: IDENTIFICATION

1.1 PRODUCT IDENTIFIER

Product Code:	Product Name	Product Version
INTRED10	SeedKOTE™ Intense Red	v1.0
INTBLU10	SeedKOTE™ Intense Blue	v1.0
INTBLU11	SeedKOTE™ Intense Blue	v1.1
INTGRE10	SeedKOTE™ Intense Green	v1.0
INTVIO10	SeedKOTE™ Intense Violet	v1.0
INTYLW11	SeedKOTE™ Intense Yellow	v1.1

1.2 RECOMMENDED USE OF CHEMICAL AND RESTRICTIONS ON USE

Use: Seed Coatings

1.3 DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

Name/Address: Kannar Earth Science, Ltd.
2420 Tech Center Parkway, Building 100
Lawrenceville, Georgia 30043

Telephone Number: +1 (678) 475-1155

1.4 EMERGENCY TELEPHONE NUMBER

Emergency Telephone Number: CHEMTREC at +1 (800) 424-9300 (Within in the US)
CHEMTREC at +1 (703) 527-3887 (Outside USA and Canada;
collect calls accepted)

Section 2: HAZARD(S) IDENTIFICATION

2.1 CLASSIFICATION OF THE CHEMICAL

Hazard class
Serious eye irritation 2A

2.2 LABEL ELEMENTS

Hazard Pictogram:



Signal Word: Warning

Hazard Statement: Causes serious eye irritation.

Prevention: Wash hands thoroughly after handling. Wear eye protection/face protection.

Response: If in eyes: 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.

Storage: Not applicable.

Disposal: Not applicable.

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2.3 ADDITIONAL INFORMATION

Hazards not otherwise specified:

Not applicable.

100 % of the mixture consists of ingredient(s) of unknown acute toxicity

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 MIXTURES

Ingredient	CAS No	Wt. %
Trade secret	Proprietary	60 - 100

The specific name and exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.

Section 4: FIRST- AID MEASURES

4.1 DESCRIPTION OF THE FIRST AID MEASURE

Eye:	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lenses, if worn. Get medical attention if irritation develops and persists.
Skin:	In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Call a physician if irritation develops and persists.
Inhalation:	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical advice/attention.
Ingestion:	If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical advice/attention.

4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

Eye:	Irritating to eyes. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.
Skin:	May cause skin irritation. Symptoms may include redness, edema, drying, defatting and cracking of the skin.
Inhalation:	May cause respiratory tract irritation. Vapours may cause drowsiness and dizziness.
Ingestion:	May be harmful if swallowed. May cause stomach distress, nausea or vomiting.

4.3 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENTS NEEDED

Note to Physicians:	Symptoms may not appear immediately.
Specific Treatments:	In case of accident or if you feel unwell, seek medical advice immediately (show the label or SDS where possible).

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Section 5: FIRE-FIGHTING MEASURES

5.1 EXTINGUISHING MEDIA

Suitable Extinguishing Media: Treat for surrounding material.

Unsuitable Extinguishing Media: None known.

5.2 SPECIAL HAZARDS ARISING FROM THE CHEMICAL

Products of Combustion: May include, and are not limited to: oxides of carbon.

5.3 SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIRE FIGHTERS

Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).

Section 6: ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Avoid any contact with the skin and eyes.

6.2 METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING - UP

Methods for Containment: Contain and/or absorb spill with inert material (e.g. sand, vermiculite), then place in a suitable container. Do not flush to sewer or allow to enter waterways. Use appropriate Personal Protective Equipment (PPE).

Methods for Cleaning-Up: Scoop up material and place in a disposal container. Provide ventilation.

Section 7: HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING

Handling: Avoid contact with skin and eyes. Do not swallow. Do not breathe gas/fumes/vapor/spray. Handle and open container with care. Use with adequate ventilation. Empty containers retain product residue and can be hazardous. Do not reuse container. (See section 8)

General Hygiene Advice: Launder contaminated clothing before reuse. Wash hands before eating, drinking, or smoking.

7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

Storage: Keep out of the reach of children. Keep container tightly closed and in a well-ventilated place. Store in a cool, dry area, away from incompatibles. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. (See section 10)

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 CONTROL PARAMETERS

Exposure Guidelines

Occupational Exposure Limits		
Ingredient	OSHA-PEL	ACGIH-TLV
Not applicable.		

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8.2 EXPOSURE CONTROLS

Engineering Controls: Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, etc.) below recommended exposure limits.

8.3 INDIVIDUAL PROTECTIVE MEASURES

Personal Protective Equipment:

Eye/Face Protection: Wear approved eye (properly fitted dust- or splash-proof chemical safety goggles) / face (face shield) protection.

Skin Protection:

Hand Protection: Wear chemical-resistant gloves.

Body Protection: Wear suitable protective clothing.

Respiratory Protection: In case of insufficient ventilation, wear suitable respiratory equipment. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

General Health and Safety Measures: Do not eat, smoke or drink where material is handled, processed or stored. Wash hands carefully before eating or smoking.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Not available.	
Color:	Red, Green, Blue, Violet, Yellow.	
Odor:	Not available.	
Odor Threshold:	Not available.	
Physical State:	Liquid.	
pH:	7.0 - 9.0	
Melting Point/Freezing Point:	Not available.	
Initial Boiling Point and Boiling Range:	100°C	(212°F)
Flash Point:	Red:	Not available
	Green:	Not available
	Blue:	Not available
	Violet:	>93.3°C (200°F) (Closed cup)
Evaporation Rate:	<1 (water) compared with butyl acetate	
Flammability:	Not Flammable.	
Lower Flammability/Explosive Limit:	Not available.	
Upper Flammability/Explosive Limit:	Not available.	
Vapor Pressure:	Not available.	
Vapor Density:	Not available.	
Relative Density/Specific Gravity:	Red:	1.090 g/cm ³ (9.100 lbs/gal)
	Green:	1.378 g/cm ³ (11.497 lbs/gal)
	Blue:	1.188 g/cm ³ (9.913 lbs/gal)
	Violet:	1.156 g/cm ³ (9.646 lbs/gal)
	Yellow:	0.998 g/cm ³ (8.330 lbs/gal)

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Solubility:	Miscible.
Partition coefficient: n-octanol/water:	Not available.
Auto-ignition Temperature:	Not available.
Decomposition Temperature:	Not available.
Viscosity:	Not available.
Oxidizing Properties:	Not available.
Explosive Properties:	Not available.

Section 10: STABILITY AND REACTIVITY

10.1 REACTIVITY

No dangerous reaction known under conditions of normal use.

10.2 CHEMICAL STABILITY

Stable under normal storage conditions.

10.3 POSSIBILITY OF HAZARDOUS REACTIONS

No dangerous reaction known under conditions of normal use.

10.4 CONDITIONS TO AVOID

Heat. Incompatible materials.

10.5 INCOMPATIBLE MATERIALS

None known.

10.6 HAZARDOUS DECOMPOSITION PRODUCTS

May include, carbon dioxide, carbon monoxide, nitrogen oxides, sulfur oxides, metal oxide/oxides and halogenated compounds.

Section 11: TOXICOLOGICAL INFORMATION

11.1 INFORMATION ON TOXICOLOGICAL EFFECTS

Likely Routes of Exposure: Skin contact, eye contact, inhalation, and ingestion.

Symptoms related to physical/chemical/toxicological characteristics:

Eye: Irritating to eyes. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.

Skin: May cause skin irritation. Symptoms may include redness, edema, drying, defatting and cracking of the skin.

Ingestion: May be harmful if swallowed. May cause stomach distress, nausea or vomiting.

Inhalation: May cause respiratory tract irritation. Vapours may cause drowsiness and dizziness.

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Acute Toxicity:

Ingredient	LC50	LD50
Not applicable.		
Calculated overall Chemical Acute Toxicity Values		
LC50 (inhalation)	LD50 (oral)	LD50 (dermal)
Not available.	Not available.	Not available.
Ingredient	Chemical Listed as Carcinogen or Potential Carcinogen (NTP, IARC, OSHA, ACGIH, CP65)*	
	Not applicable.	

11.2 DELAYED, IMMEDIATE, AND CHRONIC EFFECTS OF SHORT- AND LONG-TERM EXPOSURE

Skin Corrosion/Irritation:	Based on available data, the classification criteria are not met.
Serious Eye Damage/Irritation:	Causes serious eye irritation.
Respiratory Sensitization:	Based on available data, the classification criteria are not met.
Skin Sensitization:	Based on available data, the classification criteria are not met.
STOT-Single Exposure:	Based on available data, the classification criteria are not met.
Chronic Health Effects:	
Carcinogenicity:	This product is not classified as a carcinogen.
Germ Cell Mutagenicity:	This product is not classified as a mutagen.
Reproductive Toxicity:	
Developmental:	This product does not contain known reproductive or developmental toxins.
Fertility:	No known significant effects or critical hazards.
STOT-Repeated Exposure:	Based on available data, the classification criteria are not met.
Aspiration Hazard:	Not expected to occur.
Other Information:	Not available.

Section 12: ECOLOGICAL INFORMATION

12.1 ECOTOXICITY

Acute/Chronic Toxicity:	May cause long-term adverse effects in the aquatic environment.
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12.2 PERSISTENCE AND DEGRADABILITY

Not available.

12.3 BIOACCUMULATIVE POTENTIAL

Bioaccumulation:	Not available.
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12.4 MOBILITY IN SOIL

Not available.

12.5 OTHER ADVERSE EFFECTS

Not available.

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Section 13: DISPOSAL CONSIDERATIONS

13.1 WASTE TREATMENT METHODS

Disposal Method: This material must be disposed of in accordance with all local, state, provincial, and federal regulations.

Other disposal recommendations: Not available.

Section 14: TRANSPORT INFORMATION

14.1 UN NUMBER

Not available.

14.2 UN PROPER SHIPPING NAME

Not available.

14.3 TRANSPORT HAZARD CLASS(ES)

Not available.

14.4 PACKING GROUP

Not available.

14.5 ENVIRONMENTAL HAZARDS

Not available.

14.6 TRANSPORT IN BULK ACCORDING TO ANNEX II OF MARPOL 73/78 AND THE IBC CODE

Do not handle until all safety precautions have been read and understood.

14.7 SPECIAL PRECAUTIONS FOR USER

Not available.

Section 15: REGULATORY INFORMATION

15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/ LEGISLATIONS SPECIFIC FOR THE CHEMICAL

MSDS prepared pursuant to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012

SARA Title III				
Ingredient	Section 302 (EHS) TPQ (lbs.)	Section 304 EHS RQ (lbs.)	CERCLA RQ (lbs.)	Section 313
Not applicable.				

State Regulations

California Proposition 65:

This product contains chemicals known to the State of California to cause cancer. This product contains a chemical or chemicals known to the State of California to cause birth defects or other reproductive harm.

Global Inventories:

Ingredient	USA TSCA
All ingredients are on DSL/NDSL & TSCA inventories.	

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NFPA-National Fire Protection Association:	
Health:	1
Fire:	1
Reactivity:	0

Hazard Rating: 0 = minimal, 1 = slight, 2 = moderate, 3 = severe, 4 = extreme

SOURCE AGENCY CARCINOGEN CLASSIFICATIONS:

OSHA (O) Occupational Safety and Health Administration.

ACGIH (G) American Conference of Governmental Industrial Hygienists.

- A1 - Confirmed human carcinogen.
- A2 - Suspected human carcinogen.
- A3 - Animal carcinogen.
- A4 - Not classifiable as a human carcinogen.
- A5 - Not suspected as a human carcinogen.

IARC (I) International Agency for Research on Cancer.

- 1 - The agent (mixture) is carcinogenic to humans.
- 2A - The agent (mixture) is probably carcinogenic to humans; there is limited evidence of carcinogenicity in humans and sufficient evidence of carcinogenicity in experimental animals.
- 2B - The agent (mixture) is possibly carcinogenic to humans; there is limited evidence of carcinogenicity in humans in the absence of sufficient evidence of carcinogenicity in experimental animals.
- 3 - The agent (mixture, exposure circumstance) is not classifiable as to its carcinogenicity to humans.
- 4 - The agent (mixture, exposure circumstance) is probably not carcinogenic to humans.

NTP (N) National Toxicology Program.

- 1 - Known to be carcinogens.
- 2 - Reasonably anticipated to be carcinogens.

Section 16: OTHER INFORMATION

Date of Preparation: October 24, 2012

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End of Safety Data Sheet