


VERDEPRYN® 100SL Insecticide

SECTION 1. IDENTIFICATION	
Product Name:	Verdepryn® 100SL Insecticide
Synonyms:	IKI-3106 100SL; Verdepryn
Chemical Name:	Cyclaniliprole; 3-bromo- <i>N</i> -[2-bromo-4-chloro-6-[[[(1-cyclopropylethyl) amino]carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)-1 <i>H</i> -pyrazole-5-carboxamide (CAS) or 2',3-dibromo-4'-chloro-1-(3-chloro-2-pyridyl)-6'-{[(1 <i>RS</i>)-1-cyclopropylethyl]carbonyl}pyrazole-5-carboxanilide (IUPAC)
Chemical Family:	Anthranilic diamide; pyrazolylphenyl
Recommended Uses:	Agricultural industry: Insecticide
EPA Registration No.:	71512-34-88783
Company Identification:	Summit Agro USA LLC 240 Leigh Farm Road, Suite 415 Durham, NC 27707 (984) 260-0407
24 Hour Emergency Number:	For Transportation emergency, spills, leak, fire or accident call: CHEMTREC 1-800-424-9300 For Medical emergency call: 1-888-484-7546

SECTION 2. HAZARDS IDENTIFICATION*	
Hazard Classification:	Flammable liquid (Category 4) Acute aquatic toxicity (Category 1) Chronic aquatic toxicity (Category 3)
Signal Word:	WARNING
Hazard Symbols:	
Hazard Statements:	Combustible liquid. Very toxic to aquatic life. Harmful to aquatic life with long lasting effects.
Precautionary Statements:	Keep away from flames and hot surfaces. No smoking. Wear protective gloves and eye or face protection. In case of fire, use water spray, fog or foam to extinguish. Store in a well-ventilated place. Keep cool. Avoid release to the environment. Collect spillage. Dispose of contents and container in accordance with the product label.
*According to OSHA criteria. For FIFRA criteria, see section 15	

SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS			
Chemical Name:	CAS #:	% by Weight:	TLV/PEL:
Active Ingredient: Cyclaniliprole*	1031756-98-5	9.17	Not established
Dipropylene glycol methyl ether	34590-94-8	25 - 30	100 ppm
Calcium dodecylbenzene sulphonate	26264-06-2	1 – 2	Not established
* 3-bromo-N-[2-bromo-4-chloro-6-[[[(1-cyclopropylethyl) amino]carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)-1H-pyrazole-5-carboxamide (CA)			

SECTION 4. FIRST-AID MEASURES	
Ingestion:	Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything to an unconscious person.
Skin Contact:	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
Eye Contact:	Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
Inhalation:	Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for treatment advice.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	

SECTION 5. FIRE-FIGHTING MEASURES	
Extinguishing Media:	SMALL FIRE: Use water spray, dry chemicals, foam or carbon dioxide. LARGE FIRE: Use water spray, fog or foam. DO NOT use water jet.
Unusual Fire and Explosion Hazards:	May decompose under fire conditions emitting gases and vapors such as hydrogen bromide, nitrous vapors, chlorine vapors, carbon monoxide and carbon dioxide which may be toxic and irritating to the respiratory tract.
Fire Fighting Instructions:	Wear full firefighting turn-out gear and self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES	
Precautionary Measures:	Use protective equipment and engineering controls identified in section 8 of this document.
Containment and Clean-Up:	Contain spill. Absorb with an inert material and put the spilled material in an appropriate waste disposal container. Wash spillage area with water. Do not allow wash water to enter drains or surface waters.

SECTION 7. HANDLING AND STORAGE	
Precautions:	Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.
Storage:	Store in original container, in a secured, dry and cool place separate from fertilizer, food, and feed. Avoid cross-contamination with other pesticides.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

The recommendations in this section for exposure controls and Personal Protection are intended for industrial settings (such as formulation or packaging facilities) or for other non-application situations.

For additional information, refer to the precautions/warnings on the product label. Always follow the label instructions when handling and using this product.

Exposure Limits: Not established.

Engineering Controls: Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. Ensure that eyewash stations and safety showers are near work areas.

Personal Protection:

Ingestion: Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

Eye Contact: Where eye contact is possible, use protective eyewear (such as chemical splash goggles or a face shield).

Skin Contact: Where contact is likely, wear waterproof gloves, long-sleeved shirt and long pants, socks and chemical-resistant footwear.

Inhalation: A respirator is not normally required when handling sealed containers. Use effective engineering controls to comply with facility occupational exposure limits. In case of emergency spills, use a NIOSH-approved respirator with an organic vapor (OV) filter and any N, R, P, or HE pre-filter.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical Appearance: Transparent pale yellow liquid

Odor: Organic, slightly pungent odor

pH: 3 - 5

Boiling Point: Not available

Melting Point: Not applicable

Freezing Point: Not applicable

Flash Point: 79°C (174°F)

Evaporation Rate: Not available

Flammability: Combustible

Flammable Limits: Not available

Vapor Pressure: 2.4×10^{-6} Pa @ 25°C

Vapor Density: Not available

Density: 1.07 – 1.11 g/mL @ 20°C

Solubility: 0.15 mg/L in water @ 20°C

N-Octanol/Water: 557 (Log P_{ow} = 2.7)

Auto-Ignition Temperature: Not available

Decomposition Temperature: Not available

Volatility: Not available

SECTION 10. STABILITY AND REACTIVITY

Reactivity: No evidence of reactivity.

Stability: This product remains stable at 20°C over 24 months.

Possibility of Hazardous Reactions: None known.

SECTION 10. STABILITY AND REACTIVITY (continued)	
Conditions to Avoid:	Extremes of temperature.
Incompatible Materials:	Strong oxidizing agents, strong acids or bases.
Hazardous Decomposition Products:	Hydrogen bromide, nitrous vapors, chlorine vapors, carbon monoxide and carbon dioxide.

SECTION 11. TOXICOLOGICAL INFORMATION	
Acute Toxicity:	Acute oral toxicity (LD ₅₀): > 2000 mg/kg [Rat]. Acute dermal toxicity (LD ₅₀): > 2000 mg/kg [Rat]. Acute inhalation toxicity (LC ₅₀): > 3.38 mg/L [actual airborne concentration]; > 18.9 mg/L (nominal) 4 hour(s) [Rat].
Skin Irritation:	Mildly irritating. Primary dermal irritation index = 1.3 [Rabbit]
Eye Irritation:	Minimally irritating. Slight redness and chemosis were observed immediately after installation to test animals. All effects reversed within 72 hours. [Rabbit]
Sensitization:	Not a contact sensitizer.
Mutagenicity:	No evidence of mutagenicity.
Carcinogenicity:	No adverse effects were seen in mice ingesting cyclaniliprole in a 78-week feeding study. Dietary exposure to rats over two years showed thyroid effect in males ingesting over 6000 ppm but no carcinogenic effects in males or females at up to 20,000 ppm.
Reproductive Toxicity:	Animal studies show no significant evidence of reproductive toxicity at doses of cyclaniliprole up to 20,000 ppm.
Target Organ Effects:	90-day feeding studies showed increased liver, heart and ovary weights in female rats exposed to extreme doses of 20,000 ppm but such effects were not observed in a follow-up 1-year feeding study. Increased liver weights were observed in dogs fed over 1000 ppm but did not meet GHS guidelines for hazard classification.
Aspiration:	No data available.

SECTION 12. ECOLOGICAL INFORMATION	
Summary of Effects:	Very toxic to aquatic life. Toxic to aquatic life with long lasting effects. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with local or regional permits.
Ecotoxicity Data:	<p>Fish (Rainbow Trout) 96-hour LC₅₀ = 361 mg/L [16.6 mg a.i./L]</p> <p>Fish (Carp) 96-hour LC₅₀ = 876 mg/L [36.2 mg a.i./L]</p> <p>Invertebrate (<i>Daphnia magna</i>) 48-hour EC₅₀ = 2.36 mg/L [0.0679 mg a.i./L]</p> <p>Algae (<i>Pseudokirchneriella subcapitata</i>) 96-hour E_rC₅₀ > 1000 mg/L [> 48.3 mg a.i./L]</p> <p>Mysid shrimp (<i>Americamysis bahia</i>) 96-hour LC₅₀ > 0.2 mg a.i./L</p> <p>Oyster (<i>Crassostrea virginica</i>) EC₅₀ = 23 µg a.i./L</p> <p>Bobwhite Quail Acute LD₅₀ > 2000 mg/kg body weight (practically non-toxic)</p> <p>Mallard Duck Acute LD₅₀ > 2000 mg/kg body weight (practically non-toxic)</p> <p>Sub-Acute Dietary Bird LD₅₀ > 5000 ppm in diet for both Quail and Mallard</p>

SECTION 12. ECOLOGICAL INFORMATION (continued)

Persistence / Degradability:	Cyclaniliprole degrades very slowly in soil under both aerobic and anaerobic conditions (aerobic DT ₅₀ 445 – 1118 days; anaerobic DT ₅₀ 561 days). It does not show hydrolytic degradation at pH of 4 – 9 but degrades rapidly under photolytic conditions (DT ₅₀ 1.2 – 2.7 days). DT ₅₀ values in aquatic sediment water ranged from 32.9 – 44.9 days, but dissipation from the total system was very slow with corresponding DT ₅₀ values of 507 – 866 days.
Bioaccumulative Potential:	Not expected to be bioaccumulative. Maximum experimentally derived BCF = 103.
Mobility in Soil:	Cyclaniliprole exhibits low to medium mobility in soil (K _{foc} = 247 – 1380 mL/g; K _{foc} arithmetic mean = 790 mL/g).

SECTION 13. DISPOSAL CONSIDERATIONS

Waste Disposal:	Pesticide wastes may be hazardous. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.
Container Disposal:	DO NOT reuse or refill this container. Triple rinse container according to label directions. Then offer for recycling if available, or puncture and dispose of in a sanitary landfill, or by incineration or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

SECTION 14. TRANSPORT INFORMATION

US DOT Classification:	CLASS 9. Not regulated when shipped in non-bulk packaging by highway or rail.	
	Non-bulk (Ground Transport)	Bulk (Ground Transport)
Proper Shipping Name:	Not regulated	Environmentally Hazardous Substance, Liquid, N.O.S. (Cyclaniliprole)
Hazard Class:	Not regulated	Class 9
Identification Number:	Not regulated	UN 3082
Packing Group:	Not regulated	PG III
Hazardous Substances Reportable Quantity:	Not applicable.	
Special Provisions for Transport:	Class 9 placard not required for non-bulk packaging transported by highway or rail within the U.S. [49CFR 172.504(f)(9)].	
	IATA (Air Transport)	IMDG (Ocean Transport)
Proper Shipping Name:	Environmentally Hazardous Substance, Liquid, N.O.S. (Cyclaniliprole)	Environmentally Hazardous Substance, Liquid, N.O.S. (Cyclaniliprole), marine pollutant
Hazard Class:	Class 9	CLASS 9
Identification Number:	UN 3082	UN 3082
Packing Group:	PG III	PG III

SECTION 15. REGULATORY INFORMATION

U.S. Federal and State Regulations:

SARA 313 Inventory Ingredients: Not Listed

SARA 312 Hazards Classification: Not Listed

Listed as carcinogen by:

IARC: Not Listed

NTP: Not Listed

OSHA: Not Listed

CA Prop 65: Not Listed

TSCA: Exempt from TSCA, subject to FIFRA.

FIFRA:

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law (FIFRA). FIFRA requirements differ from the OSHA classification criteria and hazard information required for safety data sheets in Section 2 above, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required by FIFRA on the pesticide label:

CAUTION

Harmful if swallowed or absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

This pesticide is toxic to aquatic invertebrates and oysters. Do not apply directly to water. Drift and runoff may be hazardous to aquatic organisms in water adjacent to use sites. This product is highly toxic to bees and other pollinating insects exposed to direct treatment or to residues in/on blooming crops or weeds. Do not apply this product while bees or other pollinating insects are foraging the treatment area. This pesticide is toxic to aquatic invertebrates and oysters. DO NOT apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. DO NOT contaminate waters when disposing of equipment washwater or rinsate. DO NOT apply when weather conditions favor drift from the treated areas. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas.

Canada (WHMIS): Exempt

EU (Directives 67/548/EEC, 1999/45/EC and 2006/8/EC): R51/53: Toxic to aquatic organisms; may cause long-term adverse effects in the aquatic environment.

SECTION 16. OTHER INFORMATION

NFPA Hazard Ratings

Health: 1

Flammability: 2

Instability: 0

0 Minimal

1 Slight

2 Moderate

3 Serious

4 Extreme

Notice to Reader

All information contained in this Safety Data Sheet is furnished free of charge and is intended for your evaluation. In our opinion, the information as of the date of the Safety Data Sheet is reliable; however, it is your responsibility to determine the suitability of the information for your use. You are advised not to construe the information as absolutely complete since additional information may be necessary or desirable when particular, exceptional or variable conditions or circumstances exist or because of applicable laws or government regulations. Therefore, you should use this information only as a supplement to other information gathered by you; and you must make independent determinations of the suitability and completeness of the information from all sources to assure both proper use of the material described herein and the safety and health of employees. Accordingly, no guarantee expressed or implied is made by ISK Biosciences Corporation as to the results to be obtained based upon your use of the information, nor does ISK Biosciences Corporation assume any liability arising out of your use of the information. Verdepryn® is a registered trademark of Ishihara Sangyo Kaisha, Ltd.

Prepared by: Summit Agro USA LLC
Contact: (984) 260-0407