



ULINK AGRITECH PRIVATE LIMITED
MATERIAL SAFETY DATA SHEET : DYNA SHIELD

1: IDENTIFICATION

Chemical Name	2-methyl-1-nitro-3-(oxolan-3-ylmethyl)guanidine	Trade Name	DYNA SHIELD
Synonyms	Dinotefuran 20% SG	Molecular Formula	C ₇ H ₁₄ N ₄ O
Uses	Insecticide		
Manufacturer/Supplier	Ulink AgriTech Pvt. Ltd. Office Nos. 001 And 002, Ground Floor Wing "A" And Nos. 003 And 004 Ground Floor Wing "B", Nyati Tech Park, Wadgaon Sheri, Pune - 411014, Maharashtra		
Emergency Contact	9503095030	E-mail	info@agrostar.in

2: COMPOSITION/INFORMATION OF INGREDIENTS

Chemical Name	CAS #	Percent or Content (w/w)
Dinotefuran	165252-70-0	20.0%
Other	-	QS

3: HAZARD IDENTIFICATION

Human Health Hazard:	H335 May cause respiratory irritation	H315 Causes skin irritation H319 Causes serious eye irritation
Environmental Hazard:	Toxic to bees and silkworms	Aquatic hazard Chronic Category 1

4: FIRST AID MEASURES

General: If patient is unconscious or is having convulsions, never give fluid or induce vomiting. Seek medical advice immediately

Inhalation: Move patients to fresh air. Keep the patients warm. Allow patients to rest. Immediately get medical attention.

Ingestion: Rinse mouth with water and give plenty of water to drink. Do not induce vomiting. Seek medical attention immediately and show this container or label.

Skin Contact: In case of contact with product, wash immediately skin area with plenty of water and soap. Speed in removing material from skin is extremely important. Remove and isolate contaminated clothing and shoes. Call medical attention.

Eye Contact: Rinse immediately with plenty of water for several minutes. After 5 minutes remove contact lenses if present and continue rinsing with plenty of water. Continue to rinse with eyelid wide open for at least 15-20 minutes. Seek medical attention if irritation develops.

Note to physician: No specific Antidote. Skin contact paresthesia effects (itching, tingling, burning or numbness) are transient, lasting up to 24 hours. Treat symptomatically.

5: FIRE FIGHTING MEASURES

Extinguishing Media: Water spray. Dry chemical powder. Carbon Dioxide

Unsuitable Extinguishing Media: Do not use water jet, as this may spread the fire.

Hazardous Thermal (de)composition: Harmful and toxic vapours/gasses of sulphur oxides, nitrogen oxides, carbon dioxide/ carbon monoxide. May form combustible/ flammable dust-air mixture.

Special Procedures: Do not discharge extinguishing water into the environment. Move containers away from area if it can be done without risk. If possible remove containers from fire zone, cool them with water spray

Protection of Fire Fighters: Wear a self contained breathing apparatus. Wear suitable protective gloves and eye/face protection. If area is not too heavily exposed to fire, and if conditions permit, let fire burn itself out, since water may increase the contamination hazard.

6: ACCIDENTAL RELEASE MEASURES

Personal precautions: Avoid contact with spilled products or contaminated surfaces. Avoid creating dust. Eliminate all source of ignition.

Environmental precaution: Prevent entry to sewers and public waters. Notify the authorities if product enters sewers or public waters.

Methods for cleaning up: Clean up any spills as soon as possible, using an absorbent material to collect it. Collect spilled material in sealed containers. Do not use equipment in clean up procedure, which may produce sparks. Remove according to national or local legislation clean the polluted area. Do not dump into the sewer, on the ground or into any body of water.

7: HANDLING & STORAGE

Handling: General precautions: Do not smoke, drink, or eat during handling. Wash hands using liquid detergent. Wear protective clothing to avoid contact and/or inhalation with the product. Eliminate all sources of ignition from areas where the material is handled or used. Good personal hygiene procedures must be practiced.

Specific Conditions: Good local exhaust ventilation. Full face protective mask.

Storage: Store in cool, well-ventilated area, and away from source of ignition and out of reach of children. Avoid direct sunlight. Keep in original container and tightly closed. The product shall never get wet during storage, as this may leads to chemical changes and will reduce the effectiveness of insecticide, and create flammable vapours.

8: EXPOSURE CONTROL/PERSONAL PROTECTION

Engineering Measures: Ensure area is well-ventilated and there is no lighting and electrical equipment as source of ignition.

General Protection: Avoid contact with eyes and skin. While handling the product wear cotton overalls buttoned to the neck and wrist. Elbow-length PVC gloves and face shield. After use and before eating, drinking and smoking, wash hands, arms and face thoroughly with soap and water. After each day's use, wash gloves and contaminated clothing.

Personal Protection: Follow all precautions and instructions on the label. In all other cases the following recommendations would apply.

Respiratory Protection: Always use NIOSH/MSHA approved respiratory protection equipment with a universal filter type including particle filter.

Skin Protection: Must wear suitable protective clothing including long-sleeve shirt, long pants, shoes plus socks. Any clothing or other absorbent material which has been drenched or heavily contaminated must be discarded.

Hand Protection: Chemical-resistant gloves made of any waterproof material such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyvinyl chloride (PVC) or Viton.

Eye Protection: Safety goggles, chemical splash goggles or face shield for eyes protection should be used. Safety showers and eyewash should be easily available.

Others: Wash clothing before reusing.

9: PHYSICAL/CHEMICAL PROPERTIES

Appearance: Solid

Odour : Odourless

Physical State: Solid

Colour: White

pH: 6.5 - 8 (1% dispersion)

Melting Point [°C]: 107.5

Solubility in Water: Soluble

10: STABILITY & REACTIVITY

Stability: Stable for 2 years under normal circumstances.

Hazardous Decomp. Products: Decomposition on heating above 22°C. Decomposed on heating in alkaline media with the formation of copper oxides. Decomposition will evolve toxic and irritant vapors.

Conditions to Avoid: Avoid storage in moist or hot conditions and near of heat and ignition sources

11: TOXICOLOGICAL INFORMATION

Rat oral LD50 [mg/kg] : 101

Rat inhalation LC50 [mg/l/4h] : > 2.94

Skin irritation (rabbit): Slight irritant

Dermal (rat) LD50 [mg/kg]: > 2000

Skin Sensitization (Guinea Pig): Not a skin sensitizer

Eye irritation (rabbit): Mildly irritant

12: ECOLOGICAL INFORMATION

Ecotoxicity

Material is very toxic to aquatic organisms and practically non toxic to birds and bees

Acute Oral, LD50 Mallard duck > 997.9 ppm

Bio-accumulation Potential: Bio-accumulation potential is low.

Persistence, Degradability and Mobility in Soil: Fast degradation. Half-life in soil type and conditions are approximately 6-15 days. Not mobile in soil.

13: DISPOSAL CONSIDERATION

Waste-disposal procedures: Dispose of this product only according to the label. Do not contaminate drains, streams, rivers or waterways with the chemical or used container.

Contaminated packaging: (1) Rinse containers before disposal. Add rinsing's to the spray tank. Do not dispose of undiluted chemicals onsite. (2) Dispose of rinsed, empty containers at a local authority landfill. If no landfill is available, dispose as per the guidelines of regulatory authorities.

14: TRANSPORT INFORMATION

UN No. 3077 **Proper Shipping Name:** Environmentally Hazardous Substance, solid, n.o.s (Dinotefuran)

Land Transport (ADR/RID): Class-9, Packing Group-III

Sea Transport (IMO/IMDG): Class-9, Packing group-III, Marine Pollutant-Yes

Air Transport (IATA/ICAO): Class-9 Packing group-III, Environmental hazard mark-Yes

15: REGULATORY INFORMATION

Hazard Symbol: Xn: Harmful

Risk Phrases: R22, R51/5

Safety Phrases: S 2,S24/25, S36/37, S57, S60,S61

16: OTHER INFORMATION

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