



Regd. Off. : 1505, Vikram Tower, Rajendra Place, New Delhi - 110008 Ph. : +91-11-43661111 (30 lines) • Fax: +91-11-43661100, 41538600 E-mail : info@bharatgroup.co.in • Website : www.bharatgroup.co.in CIN : U74899DL2000PLC103860

MATERIAL SAFETY DATA SHEET

Manufacturer:	BR Agrotech Limited
	Panoli, Gujarat

1. **PRODUCT IDENTIFICATION**

Product	Chlorpyrifos 50% + Cypermethrin 5% EC		
Formulation	Emulsifiable Concentrate		
Intended Use	Insecticide		
Chemical Name	Chloropyrifos: O,O-diethyl O-(3,5,6-trichloro-2-pyridinyl) phosphorothioate		
	Cypermethrin : RS)-α-cyano-3-phenoxybenzyl(1RS, 3RS; 1RS,3SR)-3- (2,2-dichlorovinyl)-2,2-dimethylcyclo propane carboxylate		
Chemical formula	Chlorpyrifos: C9H11Cl3NO3PS Cypermethrin: C22H19Cl2NO3		
CAS No.	Chloropyrifos: 2921-88-2		
	Cypermethrin : 52315-07-8		

2. <u>HAZARDOUS IDENTIFICATION</u>

Acute Tox. 3	H301
Acute Tox. 4	H312

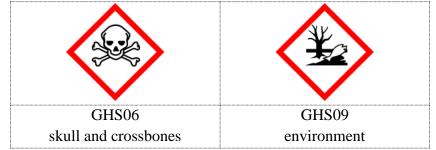
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Acute Tox. 2	H330
Aquatic Acute 1	H400
Aquatic Chronic 1	H410

Hazard pictogram:



Signal Word: DANGER

3. <u>CHEMICAL COMPOSITION</u>

Chemical Name	Content (% w/v)
Chloropyrifos	50%
Cypermethrin	5%
Other inert ingredients	45%

4. **FIRST AID MEASURES**

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Eyes	•	Flush eyes immediately with plenty of water for at least 15 minutes, lifting the upper and lower eyelids intermittently. Get medical attention immediately.	
Skin	•	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. In contact with eyes flush with plenty of water for at least 20 minutes. Remove and isolate contaminated clothing and shoes. Call medical attention.	
Ingestion	•	Call for medical attention urgently. Do not induce vomiting or give liquids. Vomiting should be induced only under professional supervision. Never give anything by mouth to an unconscious person. Make the exposed lie down and keep him warm and calm. Gastric lavage is to be applied and medical grade activated carbon given to the patient. Keep respiratory and heart functions under observation and control.	
Inhalation	:	Remove the victim to fresh air. If breathing stops, apply artificial respiration. Call for medical attention.	
Note to Medical Doctor	•	There is no specific antidote if this product is ingested. Treat symptomatically. Skin contact paresthesia effects (itching, tingling, burning or numbness) are transient, lasting up to 24 hours. Treat symptomatically. Contains petroleum distillate - vomiting may cause aspiration pneumonia	

5. <u>FIRE FIGHTING MEASURES</u>

Extinguishing Media	:	Dry chemical, CO ₂ , Alcohol foam.
Fire & explosion hazards:	•	When heated to decomposition it emits very toxic fumes of CO, CO2, CL-, NO2, and CN Possible toxic smoke, vapors, fallout and runoff water can result from fires depending on extent of



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		combustion and presence of other combustible materials. Contaminated buildings, areas, and equipment must be properly decontaminated before reuse.
Fire-fighting equipment:	•	Wear protective equipment and breathing apparatus. Direct water onto intact containers to keep them cool. Call fire bridge immediately. Self-contained breathing apparatus with full-face piece and protective clothing

6. <u>ACCIDENTAL RELEASE MEASURES</u>

Action to take for spills/leaks	•	Control the spill at its source. Contain the spill to prevent from spreading or contaminating soil or from entering sewage and drainage systems or any body of water. Sweep up material and place in a compatible disposal container. Scrub area with hard water detergent (e.g. commercial products such as Tide, Joy, Spic and Span). Pick up wash liquid with additional absorbent and place into compatible disposal container. Once all material is cleaned up and placed in a disposal container, seal container and arrange for disposition.
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7. <u>HANDLING AND STORAGE</u>

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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	•	The packages containing the insecticide shall be stored in separate room or premises away from the rooms or premises used for storage of the food articles or shall be kept in separate almirahs under lock and key depending on the quantity and the nature of the insecticide.

8. <u>EXPOSURE CONTROLS/PERSONAL PROTECTION</u>

Engineering controls:	•	Manufacturing: Provide general and/or local exhaust ventilation to control airborne levels below the exposure guidelines. End use: Generally not required when treatment dilution is used but local exhaust or ventilation may be used if necessary.
Personal protection	•	 <i>Eye/face protection</i>: Eye contact with the material should be avoided through the use of chemical safety glasses, goggles or a face-shield, selected in regard to exposure potential. <i>Respiratory protection</i>: Not normally needed for this product when diluted in water for end-use application. When needed, use MSHA/NIOSH approved respirator for pesticides. <i>Dermal protection</i>: Chemical resistant gloves, long pants, long-sleeved shirt. Remove and wash contaminated clothing before reuse. Wash separately from other laundry.





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9. PHYSICAL AND CHEMICAL PROPERTIES

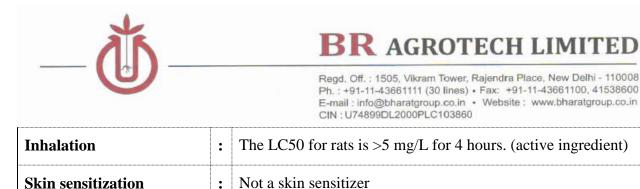
Specific gravity	:	1.13 to 1.15 g/cc
Appearance	:	Light yellow liquid
Odor	:	Aromatic
Flash point	:	Above 43 ⁰ C
Acidity	:	Max. 0.30%

10. STABILITY AND REACTIVITY

Stability	:	Stable for two years at ambient conditions.
Incompatibility	:	Strong oxidizing and alkaline agents.
Hazardous decomposition products	•	When heated to decomposition it emits very toxic fumes of CO, CO2, CL- , NO ₂ , and CN

11. TOXICOLOGICAL INFORMATION

Eyes	:	Non-irritant (rabbits)
Skin irritation	:	Non-irritant (rabbits)
Oral	:	LD50 for rats is >800 mg/kg.
Dermal	:	LD50 for rats is >4000 mg/kg.



12. ECOLOGICAL INFORMATION

Toxiclty to Fish, Bluegill sunfish	•	LC50 (96 h): 0.21 mg/l (Chloropyrifos + Cypermethrin)
Toxicity to Bee , Apis indica	•	LD50 (oral): 38 ng/bee (Chloropyrifos + Cypermethrin)
Toxicity to algae, Algae, Selenastrum capricornutum	•	ErC50: >1.1 mg/l (Chloropyrifos + Cypermethrin)
Toxicity to Daphnia	•	EC50 (48 h) 0.0.00034mg/l (Chloropyrifos + Cypermethrin)
Toxicity to birds, Mallard ducks	•	LD50: > 3950 mg/kg (Chloropyrifos + Cypermethrin)
Toxicity to Earthworm, <i>Eisenia foetida</i>	•	LC50 :> 120 mg/kg soil (Chloropyrifos + Cypermethrin)

13. **DISPOSAL CONSIDERATIONS**

Disposal Method	:	Product disposal: Do not empty into drains or waterways. Disposal
		of product would usually be by incineration in an appropriate

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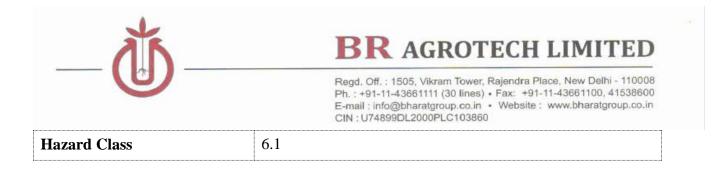
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licensed commercial incinerator. Advice may be obtained from local
waste regulation authorities.
Container disposal: Puncture container to avoid re-use. Dispose of
empty container in a sanitary landfill or by incineration, or, if
allowed by local authorities, by burning. If burned, stay out of
smoke. Follow advice on product label and/or leaflet.
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14. TRANSPORT INFORMATION

ADR/RID Classification		
Proper shipping Name	ORGANOPHOSPHORUS PESTICIDES, LIQUID, TOXIC, FLAMMABLE	
UN No.	3017	
Packing Group	III	
Hazard Class	6.1	
IMDG Classification		
Proper shipping Name	ORGANOPHOSPHORUS PESTICIDES, LIQUID, TOXIC, FLAMMABLE	
UN No.	3017	
Packing Group	III	
Hazard Class	6.1	
IATA/ICAO Classification		
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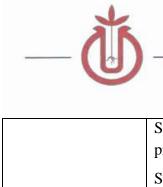
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15. <u>REGULATORY INFORMATION</u>

	¥2
GHS06	GHS09
skull and crossbones	environment

Hazard symbol	GHS06, GHS09
H-Phrase	H301: toxic if swallowed
	H312: harmful in contact with skin
	H330: fatal if inhaled
	H400: very toxic to aquatic life
	H410: very toxic to aquatic life with long lasting effects
Signal word	DANGER
Phrase	S1/2: Keep locked up and out of the reach of children.
	S13: Keep away from food, drink and animal feeding staffs.
	S20/21: When using, do not eat, drink or smoke.
	S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
	S28: After contact with skin, wash immediately with plenty of water and soap.



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S36/37/39: wear suitable protective clothing, gloves and eye/ face
protection.S45: In case of accident or if you feel unwell, seek medical advice (show
the label where possible)

OTHER INFORMATION

This MSDS summarizes best knowledge of the health and safety hazard information of the product. Each user should read this MSDS and consider the information in the context of how the product will be handled and used in the workplace including in conjunction with other products. If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company. The responsibility for products sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available on request.

Place:BR Agrotech Ltd. Panoli, GujaratDate:01/01/20