

MATERIAL SAFETY DATA SHEET

Certis USA
9145 Guilford Road, Suite 175
Columbia, MD 21046

1. CHEMICAL PRODUCT AND COMPANY INFORMATION

PRODUCT NAME..... : Gemstar LC
PRODUCT CODE..... : 70051-45
CHEMICAL FAMILY..... : biological insecticide
CHEMICAL NAME..... : Naturally occurring nuclear polyhedrosis virus of Helicoverpa zea
FORMULA..... : N/A

EMERGENCY TELEPHONE NUMBERS:

Emergency Information Chem Tel (800) 255-3924
Outside North America Call Collect (813) 248-0585

2. COMPOSITION / INFORMATION ON INGREDIENTS

COMPONENT	CAS #	WT. %	OSHA	TLV's	
			PEL	TWA	STEL
Glycerol	56-81-5	50.0	T10mg/m ³	T10mg/m ³	N/A
Naturally occurring nuclear polyhedrosis virus of <u>Helicoverpa zea</u>		0.64			N/A
Insect parts, diet, and water		49.36			

3. HAZARDOUS IDENTIFICATION

EMERGENCY OVERVIEW

This product is a brown liquid intended for use as an insecticide on agricultural, greenhouse, and nursery crops. This product should pose no health concerns through normal use in accordance with label directions.

Signal Word: CAUTION

Potential Health Effects

ROUTE(S) OF ENTRY..... : Oral, Inhalation, Eyes, Dermal

HUMAN EFFECTS AND SYMPTOMS OF OVEREXPOSURE..... : None documented

ACUTE EYE CONTACT..... : Not established. May cause slight irritation.

CHRONIC EYE CONTACT..... : Not established. May cause slight irritation.

ACUTE SKIN CONTACT..... : Not established. May cause slight irritation.

CHRONIC SKIN CONTACT..... : Not established. May cause slight irritation.

ACUTE INGESTION..... : Not established. May cause slight irritation.

CHRONIC INGESTION..... : Not established. May cause slight irritation.



RESPIRATORY / VENTILATION REQUIREMENTS : No special ventilation is required

EXPOSURE LIMITS : None

9. PHYSICAL AND CHEMICAL PROPERTIES:

PHYSICAL FORM : Liquid
COLOR : Brown
ODOR : Earthy
BOILING POINT RANGE : 194-212 °F 95-100 °C
MELT POINT / FREEZE POINT : 32 / -4 °F 0 / -20 °C
FLASH POINT : >200 °F >100 °C
AUTO IGNITION : N/A °F N/A °C
UPPER EXPLOSIVE LIMITS (UEL) : N/A
LOWER EXPLOSIVE LIMITS (LEL) : N/A
pH : 6.5-7.5
SOLUBILITY IN WATER : partially soluble
SPECIFIC GRAVITY : 1.18
BULK DENSITY : N/A
% VOLATILE BY WEIGHT : N/A
VAPOR PRESSURE at 20 °C : N/A
VAPOR DENSITY : N/A

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10. STABILITY AND REACTIVITY:

STABILITY : Stable
HAZARDOUS POLYMERIZATION : Will not occur
INCOMPATIBILITIES : None noted
DECOMPOSITION PRODUCTS : N/A
CONDITIONS TO AVOID : None

11. TOXICOLOGICAL INFORMATION:

Avoid breathing spray mist. Avoid contact with skin, eyes and clothing. In case of contact flush eyes or skin with plenty of water. Get medical attention if irritation persists.

12. ECOLOGICAL INFORMATION:

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 water by cleaning of equipment or disposal of equipment washwaters.

13. DISPOSAL CONSIDERATIONS:

WASTE DISPOSAL METHOD : Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

14. TRANSPORTATION INFORMATION:

D.O.T. PROPER SHIPPING NAME : N/A
TECHNICAL SHIPPING NAME : Helicoverpa zea



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Emergency Information: Chem Tel (800) 255-3924
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U.N. /N.A. NUMBER..... : N/A
PRODUCT RQ (lbs.)..... : N/A
D.O.T. LABEL..... : N/A
D.O.T. PLACARD..... : N/A

15. REGULATORY INFORMATION:

OSHA STATUS..... : N/A
TSCA STATUS..... : N/A
CERCLA REPORTABLE QUANTITY..... : N/A
SARA TITLE III:
SECTION 302 EXTREMELY
HAZARDOUS SUBSTANCES..... : N/A
SECTION 311/312
HAZARD CATEGORIES..... : N/A
SECTION 313
TOXIC CHEMICALS..... : N/A
RCRA STATUS..... : N/A

STATE REGULATORY INFORMATION:

The following chemicals are specifically listed by individual states; other product specific health and safety data in other sections of the MSDS may also be applicable for state requirements. For detail on your regulatory requirements you should contact the appropriate agency in your state.

<u>COMPONENT NAME / CAS NUMBER</u>	<u>CONCENTRATION</u>	<u>STATE CODE</u>
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16. OTHER INFORMATION:

REASON FOR ISSUE..... : Product code change
APPROVAL DATE..... : 6/15/06
SUPERSEDES DATE..... : 6/15/01
MSDS NUMBER..... : 70051-45

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