Material Safety Data Sheet

SUSPEND® SC INSECTICIDE

MSDS Number: 102000003167
MSDS Version 2.2
Revision Date: 01/29/2007

SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Name SUSPEND® SC INSECTICIDE
MSDS Number 102000003167

Bayer Environmental Science
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Research Triangle PK, NC 27709
USA

For MEDICAL, TRANSPORTATION or other EMERGENCY call: 1-800-334-7577 (24 hours/day)
For Product Information call: 1-800-331-2867

SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Component Name	CAS-No.	Average % by Weight
Deltamethrin	52918-63-5	4.75
1,2-Propanediol	57-55-6	15.20

SECTION 3. HAZARDS IDENTIFICATION

NOTE: Please refer to Section 11 for detailed toxicological information.

Emergency Overview Caution! Hazard to humans and domestic animals. Harmful if inhaled. Do not breathe vapours or spray mist. Contact with product may result in transient tingling and reddening of the skin. Remove and wash contaminated clothing before re-use.

Physical State liquid suspension

Odor none

Appearance white

Routes of Exposure Inhalation, Skin contact

Immediate Effects
Skin Contact with product may result in transient tingling and reddening of the skin.

Inhalation Harmful if inhaled. Do not breathe vapours or spray mist.

Potential Environmental Effect Extremely toxic to fish and aquatic invertebrates.

SECTION 4. FIRST AID MEASURES

General	When possible, have the product container or label with you when calling a poison control center or doctor or going for treatment.
Eye	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 physician or poison control center immediately.
Skin	Take off contaminated clothing and shoes immediately. Wash off immediately with plenty of water for at least 15 minutes. Call a physician or poison control center immediately.
Ingestion	Call a physician or poison control center immediately. Rinse out mouth and give water in small sips to drink. DO NOT induce vomiting unless directed to do so by a physician or poison control center. Never give anything by mouth to an unconscious person. Do not leave victim unattended.
Inhalation	Move to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a physician or poison control center immediately.
Notes to Physician Treatment	There is no specific antidote. Appropriate supportive and symptomatic treatment as indicated by the patient's condition is recommended.

SECTION 5. FIRE FIGHTING MEASURES

Flash point	not applicable
Suitable Extinguishing Media	Carbon dioxide (CO2), Dry chemical, Foam, Water
Fire Fighting Instructions	Fight fire from upwind position. Evacuate personnel to safe areas. Cool closed containers/ tanks exposed to fire with water spray. Do not allow run-off from fire fighting to enter drains or water courses. Firefighters should wear NIOSH approved self-contained breathing apparatus and full protective clothing.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Keep unauthorized people away. Avoid contact with spilled product or contaminated surfaces. In case of spill, leak or emergency, use a NIOSH approved chemical cartridge-type respirator.

Methods for Cleaning Up	Dike area to prevent runoff. Collect and transfer the product into a properly labelled and tightly closed container. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Decontaminate tools and equipment following cleanup.
Additional Advice	Isolate area. Contaminated soil may have to be removed and disposed.

SECTION 7. HANDLING AND STORAGE

Handling Procedures	Avoid contact with skin, eyes and clothing. Handle and open container in a manner as to prevent spillage. Smoking, eating and drinking should be prohibited in the application area.
Storing Procedures	Store in original container. Do not contaminate water, food, or feed by storage or disposal. Store in a cool, dry place and in such a manner as to prevent cross contamination with other pesticides, fertilizers, food, and feed.
Work/Hygienic Procedures	Handle in accordance with good industrial hygiene and safety practice. Recommendations for exposure control/personal protection are intended for the manufacture, formulation and packaging of the product. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, using the toilet or applying cosmetics. Remove and wash contaminated clothing before re-use.
Min/Max Storage Temperatures	no data available

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

General Protection	Train employees in safe use of the product. Eye wash facility and safety shower should be available. Follow all label instructions.
Engineering Controls	Maintain exposure levels below the exposure limit through the use of general and local exhaust ventilation.
Eye/Face Protection	Chemical resistant goggles must be worn.
Hand Protection	Chemical-resistant gloves made of waterproof material such as neoprene, butyl rubber, barrier laminate or nitrile rubber.
Respiratory Protection	When respirators are required, select NIOSH approved equipment based on actual or potential airborne concentrations and in accordance with the appropriate regulatory standards and/or industry recommendations.
Exposure Limits	

Pyrogenic (fumed) amorphous silica	112945-52-5	Z3	TWA	20 millions of particles per cubic foot of air
		Z3	TWA	0.8 mg/m3
		Remarks		The value is calculated from a specified equation using a value of 100%. Values lower than 100% will give higher exposure limits. See regulation for specific equation.
1,2-Propanediol	57-55-6	WEEL	TWA	10 mg/m3
		Form of exposure		Aerosol.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	white
Physical State	liquid suspension
Odor	none
pH	6.6 suspension in water
	<= 7.0 (100 %) at 20 °C
Specific Gravity	1.05 at 20 °C
Density	approx. 1.053 g/cm³ at 20 °C
Boiling Point	no data available
Melting / Freezing Point	no data available
Water solubility	immiscible
Minimum Ignition Energy	no data available
Viscosity	165 mPa.s at 20 °C

SECTION 10. STABILITY AND REACTIVITY

Chemical Stability	Stable under normal conditions.
Incompatibility	Strong oxidizing agents strong reducing agents
Hazardous Decomposition Products	Thermal decomposition can lead to release of: Carbon monoxide

Carbon dioxide (CO_2)

SECTION 11. TOXICOLOGICAL INFORMATION

Only acute toxicity studies have been conducted on this product as formulated. The non-acute information pertaines to the active ingredient, deltamethrin technical.

Acute Oral Toxicity	male/female combined rat: LD50: > 15,000 mg/kg
Acute Dermal Toxicity	male/female combined rabbit: LD50: > 10,000 mg/kg
Acute Inhalation Toxicity	male/female combined rat: LC50: > 1.02 mg/l Exposure time: 4 h Determined in the form of a respirable aerosol. (actual) male/female combined rat: > 4.08 mg/l Exposure time: 1 h Determined in the form of a respirable aerosol. Extrapolated from the 4 hr LC50. (actual)
Skin Irritation	rabbit: No skin irritation.
Eye Irritation	rabbit: No eye irritation.
Sensitization	guinea pig: Non-sensitizing.
Chronic Toxicity	Deltamethrin caused neurobehavioral effects (e.g., tremors) in chronic toxicity studies in rats and dogs.

Assessment Carcinogenicity
Deltamethrin was not carcinogenic in lifetime feeding studies in rats and mice.

ACGIH
None.
NTP
None.
IARC

Deltamethrin	52918-63-5	Overall evaluation: 3

OSHA
None.

Reproductive & Developmental Toxicity	REPRODUCTION: Deltamethrin was not a reproductive toxicant in multi-generation reproduction studies in rats. DEVELOPMENTAL TOXICITY: Deltamethrin was not a primary developmental toxicant in developmental toxicity studies in rats and rabbits. Developmental effects (e.g., delayed ossifications) were observed in rabbits at the high-dose but

were considered secondary to maternal toxicity.

Neurotoxicity — Deltamethrin caused neurobehavioral effects (e.g., tremors) without correlating neuropathological changes in acute and subchronic neurotoxicity screening studies in rats.

Mutagenicity — Deltamethrin was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

SECTION 12. ECOLOGICAL INFORMATION

Toxicity to Fish

Oncorhynchus mykiss (rainbow trout)
LC50: 0.00026 mg/l
Exposure time: 96 h

Bluegill sunfish
LC50: 0.00017 mg/l
Exposure time: 96 h

Acute Toxicity to Aquatic Invertebrates

Eastern Oyster
LC50: 0.0082 mg/l
Exposure time: 96 h

Mysidopsis bahia (mysid shrimp)
LC50: 0.000001 mg/l
Exposure time: 96 h

Toxicity to other organisms

Bobwhite quail
LD50: > 2,250 mg/kg

Bobwhite quail
LC50: > 5,620 ppm

Mallard duck
LC50: 8,039 ppm

Stability in water

Half life: 55 - 65 h
pH: 9.0

Bioaccumulation — Bluegill sunfish BCF: 189 - 3,930

Environmental Precautions — Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other water unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. For guidance, contact your State Water Board or Regional Office of the EPA. Retain and dispose of contaminated wash water.

SECTION 13. DISPOSAL CONSIDERATIONS

General Disposal Guidance	Do not contaminate water, food, or feed by disposal. Dispose in accordance with all local, state/provincial and federal regulations. Follow advice on product label and/or leaflet. 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	Triple rinse containers. Puncture container to avoid re-use. Dispose of empty container in a sanitary landfill or by incineration, or, if allowed by State/Provincial and local authorities, by burning. If burned, stay out of smoke.

SECTION 14. TRANSPORT INFORMATION

PROPER SHIPPING NAME: Not DOT regulated
NOTE: For transport purposes (49 CFR Part 173.132), the calculated 1-Hour LC50 (Rat) is: 4.08 mg/l.

SECTION 15. REGULATORY INFORMATION

US Federal Regulations

TSCA list

1,2-Propanediol 57-55-6

US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D)

None.

SARA Title III - Section 302 - Notification and Information

None.

SARA Title III - Section 313 - Toxic Chemical Release Reporting

None.

US States Regulatory Reporting

CA Prop65

This product does not contain any substances known to the State of California to cause cancer.

This product does not contain any substances known to the State of California to cause reproductive harm.

US State Right-To-Know Ingredients

1,2-Propanediol	57-55-6	MN, RI

Canadian Regulations

Canadian Domestic Substance List

1,2-Propanediol 57-55-6

Environmental

CERCLA
None.
Clean Water Section 307 Priority Pollutants
None.
Safe Drinking Water Act Maximum Contaminant Levels
None.

International Regulations
European Inventory of Existing Commercial Substances (EINECS)

Deltamethrin	52918-63-5
1,2-Propanediol	57-55-6

SECTION 16. OTHER INFORMATION

NFPA 704 (National Fire Protection Association):
Health - 1 Flammability - 0 Reactivity - 0 Others - none
0 = minimal hazard, 1 = slight hazard, 2 = moderate hazard, 3 = severe hazard, 4 = extreme hazard

Reason to Revise: Updated for general editorial purposes.

Revision Date: 01/29/2007

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