



Material Safety Data Sheet

SUSPEND® POLYZONE

MSDS Number: 102000024585

MSDS Version 1.0

Revision Date: 10/24/2011

Print Date: 10/24/2011

SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product name SUSPEND® POLYZONE
MSDS Number 102000024585
Product code (UVP) 79986521
EPA Registration No. 432-1514

Bayer Environmental Science
2 T.W. Alexander Drive
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. HAZARDS IDENTIFICATION

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

Emergency Overview Caution! Moderate eye irritation. Avoid contact with skin and clothing.

Physical State liquid

Odor sweet characteristic

Appearance light tan to brown

Exposure routes Eye contact, Skin contact, Inhalation

Immediate Effects

Eye Moderate eye irritation. Avoid contact with eyes.

Skin May cause skin irritation. Avoid contact with skin and clothing.

Ingestion Do not take internally.

Inhalation Do not breathe vapours or spray mist.

Potential Environmental Effect Extremely toxic to fish and aquatic invertebrates. Highly toxic to bees.



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SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Hazardous Component Name</u>	<u>CAS-No.</u>	<u>Average % by Weight</u>
Deltamethrin	52918-63-5	4.75
1,2-Propanediol	57-55-6	6.50

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	Appropriate supportive and symptomatic treatment as indicated by the patient's condition is recommended. There is no specific antidote.

SECTION 5. FIRE FIGHTING MEASURES

Flash point	not applicable
Autoignition temperature	no data available
Lower Flammability Limit	not applicable
Upper Flammability Limit	not applicable
Explosiveness	no data available



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Suitable extinguishing media Carbon dioxide (CO2), Dry chemical, Foam, Water

Fire Fighting Instructions Evacuate personnel to safe areas. Fight fire from upwind position. Cool closed containers 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.

Dust explosion class Not applicable.

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. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Collect and transfer the product into a properly labelled and tightly closed container. Clean contaminated surface thoroughly. Decontaminate tools and equipment following cleanup.

Additional advice Do not allow to enter soil, waterways or waste water canal. Do not allow product to contact vegetation. Information regarding safe handling, see section 7. Inform appropriate authorities immediately if contamination occurs. Information regarding waste disposal, see section 13.

SECTION 7. HANDLING AND STORAGE

Handling procedures Handle and open container in a manner as to prevent spillage. Maintain exposure levels below the exposure limit through the use of general and local exhaust ventilation. Avoid contact with skin, eyes and clothing.

Storing Procedures Store in a cool, dry place and in such a manner as to prevent cross contamination with other crop protection products, fertilizers, food, and feed. Store in original container and out of the reach of children, preferably in a locked storage area.

Work/Hygienic Procedures Handle in accordance with good industrial hygiene and safety practice. Smoking, eating and drinking should be prohibited in the application area.

Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, using the toilet or applying cosmetics. Remove soiled clothing immediately and clean thoroughly before using again. Wash thoroughly and put on clean clothing.



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SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

General Protection	Train employees in safe use of the product. Follow all label instructions. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and warm/tepid water.
Eye/Face Protection	Tightly fitting safety goggles
Hand protection	Chemical resistant nitrile rubber gloves
Body Protection	Wear long-sleeved shirt and long pants and shoes plus socks.
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

Deltamethrin	52918-63-5	OES BCS*	TWA	0.02 mg/m3
1,2-Propanediol	57-55-6	WEEL	TWA	10 mg/m3
		TX ESL	ST ESL	20 ug/m3
		TX ESL	ST ESL	500 ppm
		TX ESL	AN ESL	2 ug/m3
		TX ESL	AN ESL	50 ppm

*OES BCS: Internal Bayer CropScience "Occupational Exposure Standard"

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	light tan to brown
Physical State	liquid
Odor	sweet characteristic
pH	4 - 5.5
Vapor Pressure	not applicable
Vapor Density (Air = 1)	not applicable
Density	1.05 g/cm ³
Evaporation rate	no data available



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Boiling Point	not applicable
Melting / Freezing Point	no data available
Water solubility	no data available
Minimum Ignition Energy	no data available
Decomposition temperature	no data available
Partition coefficient: n-octanol/water	not applicable

SECTION 10. STABILITY AND REACTIVITY

Conditions to avoid	freezing
Incompatibility	no data available
Hazardous Decomposition Products	no data available
Hazardous reactions	No hazardous reactions when stored and handled according to prescribed instructions.
Chemical Stability	Stable under recommended storage conditions.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity data have been bridged from a similar formulation containing a higher percentage of the active ingredient, deltamethrin. The non-acute information pertains to the technical-grade active ingredient, deltamethrin.

Acute oral toxicity	female rat: LD50: > 5,000 mg/kg
Acute dermal toxicity	male/female combined rat: LD50: > 5,000 mg/kg



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Acute inhalation toxicity male/female combined rat: LC50: > 2.08 mg/l
Exposure time: 4 h
Determined in the form of liquid aerosol.
Highest attainable concentration.
No deaths

male/female combined rat: LC50: > 8.32 mg/l
Exposure time: 1 h
Determined in the form of liquid aerosol.
Extrapolated from the 4 hr LC50.

Skin irritation rabbit: Moderate skin irritation.

Eye irritation rabbit: Moderate eye irritation.

Sensitisation 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 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.

Assessment neurotoxicity Deltamethrin caused neurobehavioral effects (e.g., tremors) without correlating neuropathological changes in acute and subchronic neurotoxicity screening studies in rats. In a developmental neurotoxicity screening study in rats, developmental landmarks were delayed in male offspring at the maternally toxic high-dose.

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



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SECTION 12. ECOLOGICAL INFORMATION

Toxicity to fish	Rainbow trout (<i>Oncorhynchus mykiss</i>) LC50: 0.00091 mg/l Exposure time: 96 h
Toxicity to aquatic plants	Algae EC50: > 9.1 mg/l Exposure time: 96 h
Acute Toxicity to Aquatic Invertebrates	Water flea (<i>Daphnia magna</i>) EC50: 0.00056 mg/l Exposure time: 48 h
Bioaccumulation	<i>Lepomis macrochirus</i> (Bluegill sunfish) BCF: 1,400
Environmental precautions	Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not allow to get into surface water, drains and ground water. Do not contaminate surface or ground water by cleaning equipment or disposal of wastes, including equipment wash water. Do not apply this product or allow it to drift to blooming crops or weeds if bees are visiting the treatment area.
Ecological Information	The ecological data given are those of the active ingredient.

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.
Container Disposal	Do not re-use empty containers. Triple rinse containers. Puncture container to avoid re-use. Consult state and local regulations regarding the proper disposal of container. Follow advice on product label and/or leaflet.
RCRA Information	Characterization and proper disposal of this material as a special or hazardous waste is dependent upon Federal, State and local laws and are the user's responsibility. RCRA classification may apply.

SECTION 14. TRANSPORT INFORMATION

49CFR	Not dangerous goods / not hazardous material
IMDG	



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UN-Number **3082**
 Class **9**
 Packaging group **III**
 Marine pollutant **YES**
 Description of the goods **ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (DELTAMETHRIN SOLUTION)**

IATA

UN-Number **3082**
 Class **9**
 Packaging group **III**
 Environm. Hazardous Mark **YES**
 Description of the goods **ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (DELTAMETHRIN SOLUTION)**

This transportation information is not intended to convey all specific regulatory information relating to this product. It does not address regulatory variations due to package size or special transportation requirements.

SECTION 15. REGULATORY INFORMATION

EPA Registration No. 432-1514

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.



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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

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SECTION 16. OTHER INFORMATION

NFPA 704 (National Fire Protection Association):

Health - 1 Flammability - 0 Instability - 0 Others - none

HMIS (Hazardous Materials Identification System, based on the Third Edition Ratings Guide)

Health - 1 Flammability - 0 Physical Hazard - 0 PPE -

0 = minimal hazard, 1 = slight hazard, 2 = moderate hazard, 3 = severe hazard, 4 = extreme hazard

Reason for Revision: New Material Safety Data Sheet.

Revision Date: 10/24/2011

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