



# Material Safety Data Sheet

Dow AgroSciences LLC

**Product Name:** DURSBAN\* 50W Insecticide In Water Soluble  
Packets

**Issue Date:** 05/18/2010

**Print Date:** 19 Aug 2011

Dow AgroSciences LLC encourages and expects you to read and understand the entire (M)SDS, as there is important information throughout the document. We expect you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

## 1. Product and Company Identification

### Product Name

DURSBAN\* 50W Insecticide In Water Soluble Packets

### COMPANY IDENTIFICATION

Dow AgroSciences LLC  
A Subsidiary of The Dow Chemical Company  
9330 Zionsville Road  
Indianapolis, IN 46268-1189  
USA

Customer Information Number:

800-992-5994

[SDSQuestion@dow.com](mailto:SDSQuestion@dow.com)

### EMERGENCY TELEPHONE NUMBER

**24-Hour Emergency Contact:**

800-992-5994

**Local Emergency Contact:**

352-323-3500

## 2. Hazards Identification

### Emergency Overview

**Color:** Gray

**Physical State:** Powder

**Odor:** Obnoxious

**Hazards of product:**

WARNING! Harmful if swallowed. May cause eye irritation. May be harmful if inhaled. Powdered material may form explosive dust-air mixture. Isolate area. Keep upwind of spill. Toxic fumes may be released in fire situations. Slipping hazard. Cancer hazard. Can cause cancer. Avoid temperatures above 70 °C (158 °F).

### OSHA Hazard Communication Standard

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

### Potential Health Effects

**Eye Contact:** May cause moderate eye irritation. May cause slight corneal injury. Effects may be slow to heal.

**Skin Contact:** Brief contact is essentially nonirritating to skin.

**Skin Absorption:** Prolonged skin contact is unlikely to result in absorption of harmful amounts.

**Skin Sensitization:** Skin contact may cause an allergic skin reaction in a small proportion of individuals. Not likely to be a skin sensitizer in dry powder form. May be a weak skin sensitizer in susceptible individuals at concentrations > 1% aqueous solution.

**Inhalation:** Prolonged excessive exposure to dust may cause adverse effects.

**Ingestion:** Moderate toxicity if swallowed. Small amounts swallowed incidentally as a result of normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause serious injury, even death.

**Effects of Repeated Exposure:** For the active ingredient(s): Excessive exposure may produce organophosphate type cholinesterase inhibition. Signs and symptoms of excessive exposure to active ingredient may be headache, dizziness, incoordination, muscle twitching, tremors, nausea, abdominal cramps, diarrhea, sweating, pinpoint pupils, blurred vision, salivation, tearing, tightness in chest, excessive urination, convulsions. In animals, effects have been reported on the following organs: Adrenal gland. Dose levels producing these effects were many times higher than any dose levels expected from exposure due to use. For the minor component(s): In humans, effects have been reported on the following organs: Kidney. Liver. Repeated excessive exposure to crystalline silica may cause silicosis, a progressive and disabling disease of the lungs.

**Cancer Information:** For the minor component(s): This formulation contains crystalline silica. Under most conditions of use, the crystalline silica is unavailable for exposure due to the physical state. However, grinding, cutting or sanding of the cured adhesive may generate dusts which contain crystalline silica. Data suggest there is some potential for exposure to crystalline silica under these conditions. Dusts generated by cutting, grinding, or sanding may cause respiratory irritation. Repeated exposure to dusts of the cured adhesive may cause respiratory irritation and lung effects or injury. Repeated excessive exposure to crystalline silica may cause silicosis, a progressive and disabling disease of the lungs. Crystalline silica has been shown to cause cancer in laboratory animals and humans. Lung fibrosis and tumors have been observed in rats exposed to titanium dioxide in two lifetime inhalation studies. Effects are believed to be due to overloading of the normal respiratory clearance mechanisms caused by the extreme study conditions. Workers exposed to titanium dioxide in the workplace have not shown an unusual incidence of chronic respiratory disease or lung cancer. Titanium dioxide was not carcinogenic in laboratory animals in lifetime feeding studies.

**Birth Defects/Developmental Effects:** For the active ingredient(s): Has been toxic to the fetus in laboratory animals at doses toxic to the mother.

**Reproductive Effects:** Chlorpyrifos did not interfere with fertility in reproduction studies in laboratory animals. Some evidence of toxicity to the offspring occurred, but only at a dose high enough to produce significant toxicity to the parent animals.

### 3. Composition Information

Component	CAS #	Amount
Chlorpyrifos	2921-88-2	50.0 %
Calcium polysilicate	1344-95-2	29.0 %
Kaolin	1332-58-7	>= 0.4 - <= 9.6 %
Titanium dioxide	13463-67-7	0.3 %
Silica, crystalline (quartz)	14808-60-7	0.1 %
Balance		>= 10.0 - <= 19.6 %

### 4. First-aid measures

**Eye Contact:** Immediately flush eyes with water; remove contact lenses, if present, after the first 5 minutes, then continue flushing eyes for at least 15 minutes. Obtain medical attention without delay, preferably from an ophthalmologist.

**Skin Contact:** Wash skin with plenty of water.

**Inhalation:** Move person to fresh air; if effects occur, consult a physician.

**Ingestion:** If swallowed, induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. Seek medical attention immediately.

**Notes to Physician:** Atropine, only by injection, is the preferable antidote. Oximes, such as 2-PAM/protopam, may be therapeutic if used early; however, use only in conjunction with atropine. If exposed, plasma and red blood cell cholinesterase tests may indicate significance of exposure (baseline data are useful). Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

## **5. Fire Fighting Measures**

**Extinguishing Media:** Water fog or fine spray. Dry chemical fire extinguishers. Carbon dioxide fire extinguishers. Foam. Do not use direct water stream. May spread fire. Alcohol resistant foams (ATC type) are preferred. General purpose synthetic foams (including AFFF) or protein foams may function, but will be less effective. Water fog, applied gently may be used as a blanket for fire extinguishment.

**Fire Fighting Procedures:** Keep people away. Isolate fire and deny unnecessary entry. Consider feasibility of a controlled burn to minimize environment damage. Foam fire extinguishing system is preferred because uncontrolled water can spread possible contamination. Use water spray to cool fire exposed containers and fire affected zone until fire is out and danger of reignition has passed. Fight fire from protected location or safe distance. Consider the use of unmanned hose holders or monitor nozzles. Immediately withdraw all personnel from the area in case of rising sound from venting safety device or discoloration of the container. Do not use direct water stream. May spread fire. Hand held dry chemical or carbon dioxide extinguishers may be used for small fires. Move container from fire area if this is possible without hazard. Burning liquids may be moved by flushing with water to protect personnel and minimize property damage. Water fog, applied gently may be used as a blanket for fire extinguishment. Contain fire water run-off if possible. Fire water run-off, if not contained, may cause environmental damage. Review the "Accidental Release Measures" and the "Ecological Information" sections of this (M)SDS.

**Special Protective Equipment for Firefighters:** Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots, and gloves). If protective equipment is not available or not used, fight fire from a protected location or safe distance.

**Unusual Fire and Explosion Hazards:** Container may rupture from gas generation in a fire situation. Violent steam generation or eruption may occur upon application of direct water stream to hot liquids. Pneumatic conveying and other mechanical handling operations can generate combustible dust. To reduce the potential for dust explosions, do not permit dust to accumulate. Dense smoke is produced when product burns.

**Hazardous Combustion Products:** During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. Combustion products may include and are not limited to: Sulfur oxides. Phosphorous compounds. Nitrogen oxides. Hydrogen chloride. Carbon monoxide. Carbon dioxide.

## **6. Accidental Release Measures**

**Steps to be Taken if Material is Released or Spilled:** Contain spilled material if possible. Small spills: Sweep up. Collect in suitable and properly labeled containers. Large spills: Contact Dow AgroSciences for clean-up assistance. See Section 13, Disposal Considerations, for additional information.

**Personal Precautions:** Isolate area. Keep unnecessary and unprotected personnel from entering the area. Refer to Section 7, Handling, for additional precautionary measures. Keep upwind of spill. Spilled material may cause a slipping hazard. Ventilate area of leak or spill. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

**Environmental Precautions:** Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.

## 7. Handling and Storage

### Handling

**General Handling:** Keep out of reach of children. Do not swallow. Avoid breathing dust or mist. Avoid contact with eyes, skin, and clothing. Use with adequate ventilation. Wash thoroughly after handling. Keep container closed. Good housekeeping and controlling of dusts are necessary for safe handling of product. Keep away from heat, sparks and flame.

### Storage

Store in a dry place. Store in original container. Do not store near food, foodstuffs, drugs or potable water supplies.

## 8. Exposure Controls / Personal Protection

### Exposure Limits

Component	List	Type	Value
Chlorpyrifos	ACGIH	TWA Inhalable fraction and vapor.	0.1 mg/m3 SKIN, BEI
Calcium polysilicate	ACGIH	TWA	10 mg/m3 The value is for particulate matter containing no asbestos and <1% crystalline silica.
	OSHA Table Z-1	PEL Respirable fraction.	5 mg/m3
	OSHA Table Z-1	PEL Total dust.	15 mg/m3
Kaolin	ACGIH	TWA Respirable fraction.	2 mg/m3 The value is for particulate matter containing no asbestos and <1% crystalline silica.
	OSHA Table Z-1	PEL Respirable fraction.	5 mg/m3
	OSHA Table Z-1	PEL Total dust.	15 mg/m3
Titanium dioxide	ACGIH	TWA	10 mg/m3
	OSHA Table Z-1	PEL Total dust.	15 mg/m3
	Z3	Total dust.	5 mg/m3 millions of particles per cubic foot of air
	Z3	Respirable fraction.	15 mg/m3 millions of particles per cubic foot of air
Silica, crystalline (quartz)	ACGIH	TWA Respirable fraction.	0.025 mg/m3

Z3	TWA Respirable.	2.4 millions of particles per cubic foot of air The exposure limit is calculated from the equation, $250/(\%SiO_2+5)$ , using a value of 100% SiO <sub>2</sub> . Lower percentages of SiO <sub>2</sub> will yield higher exposure limits.
Z3	TWA Respirable.	0.1 mg/m <sup>3</sup> The exposure limit is calculated from the equation, $10/(\%SiO_2+2)$ , using a value of 100% SiO <sub>2</sub> . Lower percentages of SiO <sub>2</sub> will yield higher exposure limits.
Z3	TWA Total dust.	0.3 mg/m <sup>3</sup> The exposure limit is calculated from the equation, $30/(\%SiO_2+2)$ , using a value of 100% SiO <sub>2</sub> . Lower values of % SiO <sub>2</sub> will give higher exposure limits.

A "skin" notation following the exposure guideline refers to the potential for dermal absorption of the material including mucous membranes and the eyes either by contact with vapors or by direct skin contact.

It is intended to alert the reader that inhalation may not be the only route of exposure and that measures to minimize dermal exposures should be considered.

A BEI notation following the exposure guideline refers to a guidance value for assessing biological monitoring results as an indicator of the uptake of a substance from all routes of exposures.

RECOMMENDATIONS IN THIS SECTION ARE FOR MANUFACTURING, COMMERCIAL BLENDING AND PACKAGING WORKERS. APPLICATORS AND HANDLERS SHOULD SEE THE PRODUCT LABEL FOR PROPER PERSONAL PROTECTIVE EQUIPMENT AND CLOTHING.

### Personal Protection

**Eye/Face Protection:** Use chemical goggles.

**Skin Protection:** Wear clean, body-covering clothing.

**Hand protection:** Use gloves chemically resistant to this material when prolonged or frequently repeated contact could occur. Examples of preferred glove barrier materials include: Neoprene. Nitrile/butadiene rubber ("nitrile" or "NBR"). Polyvinyl chloride ("PVC" or "vinyl"). NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

**Respiratory Protection:** Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, use an approved respirator. Selection of air-purifying or positive-pressure supplied-air will depend on the specific operation and the potential airborne concentration of the material. For emergency conditions, use an approved positive-pressure self-contained breathing apparatus. The following should be effective types of air-purifying respirators: Organic vapor cartridge with a particulate pre-filter.

**Ingestion:** Avoid ingestion of even very small amounts; do not consume or store food or tobacco in the work area; wash hands and face before smoking or eating.

### Engineering Controls

**Ventilation:** Use engineering controls to maintain airborne level below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, use only with adequate ventilation. Local exhaust ventilation may be necessary for some operations.

## 9. Physical and Chemical Properties

**Physical State**  
**Color**

Powder  
Gray

<b>Odor</b>	Obnoxious
<b>Odor Threshold</b>	No test data available
<b>Flash Point - Closed Cup</b>	Not applicable
<b>Flammable Limits In Air</b>	<b>Lower:</b> Not applicable <b>Upper:</b> Not applicable
<b>Autoignition Temperature</b>	Not applicable
<b>Vapor Pressure</b>	very low
<b>Boiling Point (760 mmHg)</b>	Not applicable.
<b>Vapor Density (air = 1)</b>	Not applicable
<b>Specific Gravity (H2O = 1)</b>	
<b>Bulk Density</b>	0.277 g/cm <sup>3</sup> @ 22.8 °C <i>Unspecified</i>
<b>Freezing Point</b>	Not applicable
<b>Melting Point</b>	No test data available
<b>Solubility in water (by weight)</b>	wettable powder
<b>pH</b>	Not applicable
<b>Decomposition Temperature</b>	No test data available
<b>Evaporation Rate (Butyl Acetate = 1)</b>	Not applicable

## 10. Stability and Reactivity

### Stability/Instability

Unstable at elevated temperatures.

**Conditions to Avoid:** Avoid temperatures above 70 °C (158 °F). Exposure to elevated temperatures can cause product to decompose. Generation of gas during decomposition can cause pressure in closed systems.

**Incompatible Materials:** Avoid contact with oxidizing materials. Avoid contact with: Bases.

### Hazardous Polymerization

Will not occur.

### Thermal Decomposition

Decomposition products depend upon temperature, air supply and the presence of other materials. Decomposition products can include and are not limited to: Hydrogen chloride. Organic sulfides. Sulfur dioxide.

## 11. Toxicological Information

### Acute Toxicity

#### Ingestion

LD50, Rat, male 494 mg/kg

LD50, Rat, female 382 mg/kg

LD50, Rat, male and female 457 mg/kg

#### Dermal

LD50, Rabbit, male and female > 5,000 mg/kg

#### Inhalation

LC50, 4 h, Dust., Rat, male and female > 2.53 mg/l

### Eye damage/eye irritation

May cause moderate eye irritation. May cause slight corneal injury. Effects may be slow to heal.

### Skin corrosion/irritation

Brief contact is essentially nonirritating to skin.

### Sensitization

#### Skin

Skin contact may cause an allergic skin reaction in a small proportion of individuals. Not likely to be a skin sensitizer in dry powder form. May be a weak skin sensitizer in susceptible individuals at concentrations > 1% aqueous solution.

#### **Repeated Dose Toxicity**

For the active ingredient(s): Excessive exposure may produce organophosphate type cholinesterase inhibition. Signs and symptoms of excessive exposure to active ingredient may be headache, dizziness, incoordination, muscle twitching, tremors, nausea, abdominal cramps, diarrhea, sweating, pinpoint pupils, blurred vision, salivation, tearing, tightness in chest, excessive urination, convulsions. In animals, effects have been reported on the following organs: Adrenal gland. Dose levels producing these effects were many times higher than any dose levels expected from exposure due to use. For the minor component(s): In humans, effects have been reported on the following organs: Kidney. Liver. Repeated excessive exposure to crystalline silica may cause silicosis, a progressive and disabling disease of the lungs.

#### **Chronic Toxicity and Carcinogenicity**

Active ingredient did not cause cancer in laboratory animals. For the minor component(s): This formulation contains crystalline silica. Under most conditions of use, the crystalline silica is unavailable for exposure due to the physical state. However, grinding, cutting or sanding of the cured adhesive may generate dusts which contain crystalline silica. Data suggest there is some potential for exposure to crystalline silica under these conditions. Dusts generated by cutting, grinding, or sanding may cause respiratory irritation. Repeated exposure to dusts of the cured adhesive may cause respiratory irritation and lung effects or injury. Repeated excessive exposure to crystalline silica may cause silicosis, a progressive and disabling disease of the lungs. Crystalline silica has been shown to cause cancer in laboratory animals and humans. Lung fibrosis and tumors have been observed in rats exposed to titanium dioxide in two lifetime inhalation studies. Effects are believed to be due to overloading of the normal respiratory clearance mechanisms caused by the extreme study conditions. Workers exposed to titanium dioxide in the workplace have not shown an unusual incidence of chronic respiratory disease or lung cancer. Titanium dioxide was not carcinogenic in laboratory animals in lifetime feeding studies.

#### **Carcinogenicity Classifications:**

Component	List	Classification
Titanium dioxide	IARC	Possibly carcinogenic to humans.; 2B
Silica, crystalline (quartz)	NTP	Known carcinogen.
	ACGIH	Suspected human carcinogen.; Group A2
	IARC	Carcinogenic to humans.; 1

#### **Developmental Toxicity**

For the active ingredient(s): Has been toxic to the fetus in laboratory animals at doses toxic to the mother. Active ingredient did not cause birth defects in laboratory animals.

#### **Reproductive Toxicity**

Chlorpyrifos did not interfere with fertility in reproduction studies in laboratory animals. Some evidence of toxicity to the offspring occurred, but only at a dose high enough to produce significant toxicity to the parent animals. For the majority of components: No relevant information found.

#### **Genetic Toxicology**

For the minor component(s) In vitro genetic toxicity studies were negative in some cases and positive in other cases. Based on a majority of negative data and some equivocal or marginally positive results, active ingredient is considered to have minimal genetic toxicity potential.

## **12. Ecological Information**

### **ENVIRONMENTAL FATE**

Data for Component: Chlorpyrifos

#### **Movement & Partitioning**

Bioconcentration potential is moderate (BCF between 100 and 3000 or Log Pow between 3 and 5). Expected to be relatively immobile in soil (Koc > 5000).

**Henry's Law Constant (H):** 6.6E-06 atm\*m3/mole Measured

**Partition coefficient, n-octanol/water (log Pow):** 4.7 Measured

**Partition coefficient, soil organic carbon/water (Koc):** 8,151

**Bioconcentration Factor (BCF):** 180; invertebrate; Measured

|| 100 - 1,673; fish; Measured

**Persistence and Degradability**

|| Biodegradation under aerobic laboratory conditions is below detectable limits (BOD20 or BOD28/ThOD < 2.5%).

**Indirect Photodegradation with OH Radicals**

Rate Constant	Atmospheric Half-life	Method
9.16678E-11 cm <sup>3</sup> /s	1.4 h	Estimated.

**Stability in Water (1/2-life):**

|| 7 - 14 d

**Biological oxygen demand (BOD):**

BOD 5	BOD 10	BOD 20	BOD 28
0 %			

Data for Component: **Calcium polysilicate**

**Movement & Partitioning**

|| Partitioning from water to n-octanol is not applicable.

**Persistence and Degradability**

|| Biodegradation is not applicable.

Data for Component: **Kaolin**

**Movement & Partitioning**

|| Partitioning from water to n-octanol is not applicable.

**Persistence and Degradability**

|| Biodegradation is not applicable.

Data for Component: **Titanium dioxide**

**Movement & Partitioning**

|| Partitioning from water to n-octanol is not applicable.

**Persistence and Degradability**

|| Biodegradation is not applicable.

Data for Component: **Silica, crystalline (quartz)**

**Movement & Partitioning**

|| Partitioning from water to n-octanol is not applicable.

**Persistence and Degradability**

|| Biodegradation is not applicable.

**ECOTOXICITY**

Data for Component: **Chlorpyrifos**

|| Material is very highly toxic to aquatic organisms on an acute basis (LC50/EC50 <0.1 mg/L in the most sensitive species). Material is highly toxic to birds on a dietary basis (LC50 between 50 and 500 ppm). Material is moderately toxic to birds on an acute basis (LD50 between 51 and 500 mg/kg).

**Fish Acute & Prolonged Toxicity**

|| LC50, rainbow trout (*Oncorhynchus mykiss*), 96 h: 0.0030 - 0.0085 mg/l

**Aquatic Invertebrate Acute Toxicity**

|| EC50, water flea *Daphnia magna*, 48 h: 0.00068 mg/l

**Aquatic Plant Toxicity**

|| EC50, alga *Scenedesmus* sp., biomass growth inhibition, 96 h: 0.48 mg/l

|| EC50, diatom *Skeletonema costatum*, Growth inhibition (cell density reduction), 96 h: 0.255 - 0.328 mg/l

|| ErC50, algae, 72 h: 1.2 mg/l

**Toxicity to Micro-organisms**

|| EC50; activated sludge, respiration inhibition: > 100 mg/l

**Toxicity to Above Ground Organisms**

|| oral LD50, Wild House Sparrow, (*Passer domesticus*): 122 mg/kg

|| dietary LC50, bobwhite (*Colinus virginianus*): 423 ppm

|| oral LD50, Honey bee (*Apis mellifera*)

|| contact LD50, Honey bee (*Apis mellifera*)

**Toxicity to Soil Dwelling Organisms**



|| LC50, Earthworm *Eisenia foetida*, adult, 14 d: 0.214 mg/kg  
Data for Component: **Calcium polysilicate**  
|| No relevant information found.

Data for Component: **Kaolin**

|| Not expected to be acutely toxic to aquatic organisms.

Data for Component: **Titanium dioxide**

|| Material is practically non-toxic to aquatic organisms on an acute basis  
|| (LC50/EC50/EL50/LL50 >100 mg/L in the most sensitive species tested).

**Fish Acute & Prolonged Toxicity**

|| NOEC mortality, golden orfe (*Leuciscus idus*), static, 48 h: > 1,000 mg/l  
|| LC50, sheepshead minnow (*Cyprinodon variegatus*), 96 h: 240 - 370 mg/l

**Aquatic Invertebrate Acute Toxicity**

|| EC50, water flea *Daphnia magna*, static, 48 h, immobilization: > 1,000 mg/l

Data for Component: **Silica, crystalline (quartz)**

|| Not expected to be acutely toxic to aquatic organisms.

### 13. Disposal Considerations

If wastes and/or containers cannot be disposed of according to the product label directions, disposal of this material must be in accordance with your local or area regulatory authorities. This information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. If the material as supplied becomes a waste, follow all applicable regional, national and local laws.

### 14. Transport Information

**DOT Non-Bulk**

**Proper Shipping Name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCES, SOLID, NOS

**Technical Name:** CHLORPYRIFOS

**Hazard Class:** 9 **ID Number:** UN3077 **Packing Group:** PG III

**DOT Bulk**

**Proper Shipping Name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCES, SOLID, NOS

**Technical Name:** CHLORPYRIFOS

**Hazard Class:** 9 **ID Number:** UN3077 **Packing Group:** PG III

**IMDG**

**Proper Shipping Name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCES, SOLID, NOS

**Technical Name:** CHLORPYRIFOS

**Hazard Class:** 9 **ID Number:** UN3077 **Packing Group:** PG III

**EMS Number:** F-A,S-F

**Marine pollutant.:** Yes

**ICAO/IATA**

**Proper Shipping Name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCES, SOLID, NOS

**Technical Name:** CHLORPYRIFOS

**Hazard Class:** 9 **ID Number:** UN3077 **Packing Group:** PG III

**Cargo Packing Instruction:** 911

**Passenger Packing Instruction:** 911

**Additional Information**

Reportable quantity: 2 lb – CHLORPYRIFOS

MARINE POLLUTANT

*This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.*

## 15. Regulatory Information

### OSHA Hazard Communication Standard

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

### Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Sections 311 and 312

Immediate (Acute) Health Hazard	Yes
Delayed (Chronic) Health Hazard	Yes
Fire Hazard	No
Reactive Hazard	No
Sudden Release of Pressure Hazard	No

### Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Section 313

To the best of our knowledge, this product does not contain chemicals at levels which require reporting under this statute.

### Pennsylvania (Worker and Community Right-To-Know Act): Pennsylvania Hazardous Substances List and/or Pennsylvania Environmental Hazardous Substance List:

The following product components are cited in the Pennsylvania Hazardous Substance List and/or the Pennsylvania Environmental Substance List, and are present at levels which require reporting.

Component	CAS #	Amount
Chlorpyrifos	2921-88-2	50.0%
Calcium polysilicate	1344-95-2	29.0%
Kaolin	1332-58-7	>= 0.4 - <= 9.6 %

### Pennsylvania (Worker and Community Right-To-Know Act): Pennsylvania Special Hazardous Substances List:

To the best of our knowledge, this product does not contain chemicals at levels which require reporting under this statute.

### Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) Section 103

This product contains the following substances which are subject to CERCLA Section 103 reporting requirements and which are listed in 40 CFR 302.4.

Component	CAS #	Amount
Chlorpyrifos	2921-88-2	50.0%

### California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986)

WARNING: This product contains a chemical(s) known to the State of California to cause cancer.

### Toxic Substances Control Act (TSCA)

All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements under 40 CFR 720.30

## 16. Other Information

### Hazard Rating System

**NFPA**

**Health**

**Fire**

**Reactivity**

2

2

1

### Revision

Identification Number: 50339 / 1016 / Issue Date 05/18/2010 / Version: 2.0

DAS Code: XRM-5331

Most recent revision(s) are noted by the bold, double bars in left-hand margin throughout this document.

### Legend

N/A	Not available
W/W	Weight/Weight
OEL	Occupational Exposure Limit
STEL	Short Term Exposure Limit
TWA	Time Weighted Average
ACGIH	American Conference of Governmental Industrial Hygienists, Inc.
DOW IHG	Dow Industrial Hygiene Guideline
WEEL	Workplace Environmental Exposure Level
HAZ_DES	Hazard Designation
Action Level	A value set by OSHA that is lower than the PEL which will trigger the need for activities such as exposure monitoring and medical surveillance if exceeded.

*Dow AgroSciences LLC urges each customer or recipient of this (M)SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this (M)SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/user's responsibility to ensure that his activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of the manufacturer, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product. Due to the proliferation of sources for information such as manufacturer-specific (M)SDSs, we are not and cannot be responsible for (M)SDSs obtained from any source other than ourselves. If you have obtained an (M)SDS from another source or if you are not sure that the (M)SDS you have is current, please contact us for the most current version.*