



The MSDS format adheres to the standards and regulatory requirements of the United States and may not meet regulatory requirements in other countries.

DuPont
Material Safety Data Sheet

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M0000404 DuPont "STEWARD" INSECTICIDE
Revised 2-JUL-2004

CHEMICAL PRODUCT/COMPANY IDENTIFICATION

Material Identification

"STEWARD" is a registered trademark of DuPont.

"DuPont" is a trademark of DuPont.

Corporate MSDS Number : DU008283
CAS Number : 173584-44-6
CAS Name : (DPX-KN128 Active Ingredient)

Tradenames and Synonyms

DuPont Indoxacarb 150SC Insecticide
Avaunt (Brazil)
Ammate
Steward Insecticide
B10596921
DPX-MP062
DPX-KN128 Active Ingredient

Company Identification

MANUFACTURER/DISTRIBUTOR
DuPont
1007 Market Street
Wilmington, DE 19898

PHONE NUMBERS

Product Information : 1-800-441-7515 (outside the U.S.
302-774-1000)
Transport Emergency : CHEMTREC 1-800-424-9300(outside U.S.
703-527-3887)
Medical Emergency : 1-800-441-3637 (outside the U.S.
302-774-1000)

COMPOSITION/INFORMATION ON INGREDIENTS

Components

Material	CAS Number	%
INDOXACARB	173584-44-6	14.5
OTHER COMPONENTS		
RELATED ISOMERS AND IMPURITIES		6.0
INERT INGREDIENTS		79.5

HAZARDS IDENTIFICATION

Emergency Overview

Caution! Harmful if swallowed. Causes moderate eye irritation. Harmful if absorbed through skin. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling. Harmful if inhaled. Avoid breathing (dust, vapor or spray mist). Remove contaminated clothing and wash clothing before reuse.

Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

Potential Health Effects

Based on data from animal testing, DuPont Steward Insecticide may cause mild eye irritation with tearing, pain or blurred vision.

Based on data from animal testing, DuPont Steward Insecticide may cause irritation with itching, burning, redness, swelling or rash. DuPont Steward Insecticide may cause skin sensitization with allergic rashes.

Based on data from animal testing, ingestion of large amounts of DuPont Steward Insecticide may cause alteration in blood cell counts and/or anemia.

Carcinogenicity Information

None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, OSHA or ACGIH as a carcinogen.

FIRST AID MEASURES

First Aid

IF SWALLOWED: Call a poison control center or doctor immediately for treatment advice. Have a person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

IF IN EYES: 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 poison control center or doctor for treatment advice.

IF ON SKIN OR CLOTHING: Remove contaminated clothing.

(FIRST AID MEASURES - Continued)

Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

IF INHALED: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-441-3637 for emergency medical treatment information.

FIRE FIGHTING MEASURES

Flammable Properties

Flash Point : 103.3 C (217.9 F)
Autoignition : 266.5 C (511.7 F)

Extinguishing Media

Water, Water Spray, Foam, Dry Chemical, CO2.

Fire Fighting Instructions

Keep personnel removed and upwind of fire. Wear self-contained breathing apparatus. Wear full protective equipment. Runoff from fire control may be a pollution hazard.

If area is exposed to fire and conditions permit, let fire burn itself out. Burning chemicals may produce by-products more toxic than the original material. If product is on fire, wear self-contained breathing apparatus and full protective equipment. Use water spray. Control runoff.

ACCIDENTAL RELEASE MEASURES

Safeguards (Personnel)

NOTE: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

Evacuate personnel, thoroughly ventilate area, use self-contained breathing apparatus.

Emergency Response - Chemical resistant coveralls, waterproof gloves, waterproof boots and face/eye protection. If dusting occurs, use NIOSH approved respirator protection.

(ACCIDENTAL RELEASE MEASURES - Continued)

Initial Containment

Follow applicable Federal, State/Provincial and Local laws/regulations. Prevent material from entering sewers, waterways, or low areas.

Spill Clean Up

Soak up with sawdust, sand, oil dry or other absorbent material. Dispose of in an approved container.

HANDLING AND STORAGE

Handling (Personnel)

USERS SHOULD: Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.

Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

Storage

Do not subject to temperatures below 32 degrees F. Store product in original container only in a location inaccessible to children and pets. Do not contaminate water, other pesticides, fertilizer, food or feed in storage. Not for use or storage in or around the home.

EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls

Use only with adequate ventilation. Keep container tightly closed.

Personal Protective Equipment

Some materials that are chemical resistant to this product are listed below. If you want more options follow the instructions for Category A on the EPA chemical resistance category selection chart.

Applicators and other handlers must wear:

Long-sleeved shirt and long pants.

Chemical Resistant Gloves Category A (such as butyl rubber, natural rubber, neoprene rubber, or nitrile rubber) are equal to or greater than 14 mils.

Shoes plus socks.

(EXPOSURE CONTROLS/PERSONAL PROTECTION - Continued)

Follow manufacturer instructions for cleaning and maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil or water wear:

Coveralls over long sleeved shirt and long pants.

Socks plus chemical resistant footwear.

Chemical Resistant Gloves Category A (such as butyl rubber, natural rubber, neoprene rubber, or nitrile rubber), all equal to or greater than 14 mils.

Exposure Guidelines

Exposure Limits

DuPont "STEWARD" INSECTICIDE

PEL (OSHA)	: Particulates (Not Otherwise Regulated)
	15 mg/m ³ , 8 Hr. TWA, total dust
	5 mg/m ³ , 8 Hr. TWA, respirable dust
AEL * (DuPont)	: 1 mg/m ³
	8 & 12 Hr. TWA, Respirable

* AEL is DuPont's Acceptable Exposure Limit. Where governmentally imposed occupational exposure limits which are lower than the AEL are in effect, such limits shall take precedence.

PHYSICAL AND CHEMICAL PROPERTIES

Physical Data

Odor	: Oily.
Form	: Liquid.
Color	: Ivory.
Density	: 1.039 g/mL
Vapor Pressure	: 2.5 X 10 ⁽⁻⁸⁾ Pa (a.i.)
Solubility in Water	: 0.2 ppm (a.i.)

STABILITY AND REACTIVITY

Incompatibility with Other Materials

None reasonably foreseeable.

TOXICOLOGICAL INFORMATION

Animal Data

DuPont Steward Insecticide

Oral LD50:	3619 mg/kg in male rats
Oral LD50:	751 mg/kg in female rats (Slight toxicity)
Dermal LD50:	>5000 mg/kg in rats (Slight toxicity)
Inhalation 4 hour LC50:	>2.7 mg/L in rats (Very low toxicity)

DuPont Steward Insecticide is a slight to mild skin irritant, and is a skin sensitizer, but is not an eye irritant in animals.

DuPont Steward Insecticide in high single oral doses caused gait abnormalities, incoordination, hypoactivity, convulsions, tremors, hypothermia, hair loss, labored respiration, discharge, and vocalization in rats.

Single oral dosing studies with DPX-MP062 (containing 75% Indoxacarb, active ingredient) to assess potential neurotoxicity were conducted in male and female rats. The NOEL for neurotoxicity was 100 mg/kg for male rats and 12.5 mg/kg for female rats.

Repeated oral dosing with DPX-MP062 (containing 75% Indoxacarb, active ingredient) caused mild hemolytic anemia and reduced body weight gain in male and female rats; additionally, female rats experienced weakness and incoordination while male rats exhibited some changes in clinical chemical measurements. The No-Observed-Effect-Level (NOEL) in a 90-day repeated oral dosing study was 100 ppm for male rats and 25 ppm for female rats.

Single inhalation exposure to DuPont Steward Insecticide in rats caused lung noise immediately following exposure; no clinical signs were noted during the 14-day recovery period.

Based on animal data from DPX-JW062 (containing 50% Indoxacarb, active ingredient), the following chronic effects may occur in animals with Indoxacarb.

Ingestion of DPX-JW062 by dogs for one-year caused hemolytic anemia with secondary histopathological changes and decreased body weights. The NOEL for both male and female dogs was 40 ppm. Effects in male and female rats that were fed DPX-JW062 in their diets for two-years include decreased body weight, in addition females also had some hemolysis. The NOEL for the two-year rat feeding study was 60 ppm for male rats and 40 ppm for female rats. Male and female mice fed DPX-JW062 for eighteen months had decreased body weight, in addition females showed signs of neurotoxicity, some mortality, and a few incidences of histopathologic changes in the brain (probably secondary to seizures). The NOEL for the eighteen month mouse feeding study

(TOXICOLOGICAL INFORMATION - Continued)

was 20 ppm in male and female mice.

Tests have shown that DPX-MP062 (containing 75% Indoxacarb, active ingredient) does not cause genetic damage in bacterial or mammalian cell cultures or in animals.

Based on animal data from DPX-JW062 (containing 50% Indoxacarb, active ingredient) Indoxacarb is not considered a carcinogenic or reproductive hazard.

Indoxacarb is not considered a developmental hazard. The maternal and developmental NOEL was 2.0 mg/kg.

ECOLOGICAL INFORMATION

Ecotoxicological Information

AQUATIC TOXICITY:

96 hour LC50 - Rainbow trout: 0.65 mg/L.

Highly toxic.

96 hour LC50 - Bluegill sunfish: 0.90 mg/L.

Highly toxic.

48 hour LC50 - Daphnia magna: 0.60 mg/L.

Highly toxic.

AVIAN TOXICITY:

Acute Oral LD50 - Bobwhite Quail: 98 mg/kg.

Acute Dietary LC50 - Bobwhite Quail: 808 ppm.

Acute Dietary LC50 - Mallard Duck: > 5620 ppm

NOTE: The above Aquatic Toxicity and Avian Toxicity is for DPX-MP062 (containing 75% Indoxacarb, active ingredient).

DISPOSAL CONSIDERATIONS

Waste Disposal

Do not contaminate water, food, or feed by storage or disposal. Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. 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.

(DISPOSAL CONSIDERATIONS - Continued)

Container Disposal

For Plastic Containers: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

For Metal Containers (non aerosol): Triple rinse (or equivalent) the container. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by the State and local authorities.

TRANSPORTATION INFORMATION

Shipping Information

DOT/IMO
Proper Shipping Name : Environmentally Hazardous Substance,
Liquid, N.O.S.
(INDOXACARB)
Hazard Class : Class 9
UN No. : UN3082
Packing Group : PG III
Marine Pollutant : Yes

NOTE: Not Regulated unless in bulk package or shipped by
water.

REGULATORY INFORMATION

U.S. Federal Regulations

TITLE III HAZARD CLASSIFICATIONS SECTIONS 311, 312

Acute : Yes
Chronic : No
Fire : No
Reactivity : No

In the United States this product is regulated by the US
Environmental Protection Agency under the Federal Insecticide,
Fungicide and Rodenticide Act. It is a violation of federal law
to use this product in a manner inconsistent with its labeling.

EPA Reg. No. 352-598

OTHER INFORMATION

The data in this Material Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process.

Responsibility for MSDS : DuPont Crop Protection
Address : Wilmington, DE 19898
Telephone : 1-888-638-7668

Indicates updated section.

This information is based upon technical information believed to be reliable. It is subject to revision as additional knowledge and experience is gained.

End of MSDS