



SAFETY DATA SHEET

DUPONT™ ARILON® INSECTICIDE

1. PRODUCT AND COMPANY

Material Identification	ARILON® INSECTIDE
Product description	Indoxacarb insecticide
Recommended use	Insecticide for control of cockroaches, ants, and houseflies.
Company details	DuPont (New Zealand) Limited 98 Kerrs Road PO Box 97641, SAMC Manukau City , Manukau 2241
Telephone	(09) 268 5500
Fax	(09) 268 5490
24-hour Emergency telephone	0800 243 622
Date of issue	August 2010

2. HAZARDS IDENTIFICATION

HSNO Classification	6.1D(acute oral toxicant), 6.9A(target organ systemic toxicant), 9.1A(aquatic toxicant), 9.3C(terrestrial vertebrate toxicant), 9.4A(terrestrial invertebrate toxicant)
Hazards	Harmful - may be harmful if swallowed, inhaled or absorbed through the skin. Toxic - may cause damage to the hematopoietic system from repeated oral exposure at high doses. Ecotoxic - very toxic to aquatic organisms. Avoid contamination of any water supply with product or empty container. Harmful to terrestrial vertebrates. Very toxic to terrestrial invertebrates.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient	CAS No.	Proportion
Indoxacarb	173584-44-6	20%
Related Isomers and Impurities		< 10%
Inert Ingredients		> 60%



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4. FIRST AID MEASURES

Inhalation	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.
Skin Contact	If spilt on skin, remove contaminated clothing and wash affected areas of skin immediately. DO NOT scrub the skin. Remove and wash contaminated clothing before reuse.
Eye Contact	If concentrate is splashed in eyes, flush with running water for least 15 minutes. Take to hospital without delay. For advice contact the National Poisons Centre 0800 POISON (0800 764766)
Ingestion	If swallowed, DO NOT induce vomiting. For advice, contact the National Poisons Centre 0800 POISON (0800 764766) or call a doctor immediately.

5. FIRE FIGHTING MEASURES

Flammable Properties	Non-flammable. Handle this material as if it were a fire and explosion hazard.
Extinguishing Media	Water, Water Spray, Foam, Dry Chemical, CO ₂ .
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 the 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.
Hazchem code	2Z

6. ACCIDENTIAL RELEASE MEASURES

Spill precautions	Use appropriate Personal Protective Equipment during clean up. (See Section 8)
Spill containment	Dyke spill. Prevent liquid from entering the sewers, waterways, or low areas.
Spill clean-up	Shovel or sweep up. DO NOT flush with water. Place material in a clean, dry container and cover for disposal. Wash contaminated areas with water and detergent. Prevent liquid from entering sewers, waterways or low areas. Soak up with sawdust, sand or other absorbent material. Shovel or sweep up. Never return to container for reuse. (See section 13 for disposal instructions.)



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7. HANDLING AND STORAGE

Handling	Avoid skin and eye contact. Avoid inhaling the vapour, or spray mist. Wash thoroughly after handling. Wash clothing after use.
Storage	Store in the closed, original container in a dry, well ventilated area, as cool as possible out of direct sunlight and under lock and key. Keep from contact with fertilisers, fungicides and seeds. DO NOT store with Classes 1, 2, 3,2,4 or 5 substances. Stores containing more than 100 kg of this product, either alone or in aggregate with other Hazardous substances are subject to requirement of an emergency management response plan, secondary containment and signage.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limits	Indoxacarb PEL (OSHA) Particulates (Not Otherwise Regulated) 15 mg/m ³ , 8 Hr. TWA, total dust 5 mg/m ³ , 8 Hr. TWA, respirable dust
Engineering Controls	Use only with adequate ventilation. Keep container tightly closed. DO NOT generate dust.
Personal Protective Equipment	Wear Safety glasses. Wear overalls, chemical splash goggles and face shield when the possibility exists for eye or face contact from airborne material.
Respirator	Respiratory protection should not be required for normal use and handling. During abnormal exposures or when there is a chance that the AEL will be exceeded, use of an approved respirator is recommended.
Protective Clothing	Where there is potential for skin contact, have available and wear as appropriate, impervious clothing such as gloves, goggles, apron, pants, overalls.

9. PHYSICAL AND CHEMICAL PROPERTIES

Odour	Slight, non descript
Form	Granular
Colour	Tan
Bulk Density	0.60 g/mL
Vapour Pressure	2.5 x 10 ⁻⁸ Pa (a.i.)
Solubility in Water	0.2 ppm (a.i.)
Corrosivity	Non corrosive
Oxidisation	Not an oxidiser

(Also, see sections 5 & 10)



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10. STABILITY AND REACTIVITY

Stability Stable at normal temperatures and storage conditions.

11. TOXICOLOGICAL INFORMATION

Chronic effects

Repeated oral dosing with DPX-MP062 caused mild haemolytic anaemia 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.

Based on animal data from DPX-JW062 (50% KN128, Active Ingredient), the following chronic effects may occur in animals with DPX-MP062.

Ingestion of DPX-JW062 by dogs for one-year caused haemolytic anaemia 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 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 was 20 ppm in male and female mice. Tests have shown that DPX-MP062 does not cause genetic damage in bacterial or mammalian cell cultures or in animals.

Based on animal data from DPX-JW062 (50% KN128, Active Ingredient), DPX-MP062 is not considered a carcinogenic or reproductive hazard.

DPX-MP062 is not considered a developmental hazard. The maternal and developmental NOEL was 2.0 mg/kg.

Acute Toxicity Data "Arilon"

Oral LD₅₀: 1,909 mg/kg in rats

Dermal LD₅₀: > 5000 mg/kg in rats

Inhalation LC₅₀, 4 hr: > 4.8 mg/L

Slight eye and skin irritant. Not a skin sensitiser (LLNA method)



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12. ECOLOGICAL INFORMATION

Indoxacarb

Fish 96 hour LC₅₀ – Rainbow trout: 0.65 mg/L,
96 hour LC₅₀ – Bluegill sunfish: 0.90 mg/L
48 hour LC₅₀ – Daphnia magna: 0.60 mg/L
Algae EC₅₀ (120hr) > 0.11mg/L. Aquatic photolysis 3.8 days (pH 5.0)
(9.1A) Very toxic to aquatic organisms. Avoid contamination of any water supply with chemical or empty container.
DT₅₀ in tama silt loam soil = 17days. Kow log P = 4.65.
Worms LC₅₀ (14 days) > 1,250mg/kg
Acute Oral LD₅₀ – Bobwhite Quail 98 mg/kg,
Mallard duck. > 2,250 mg/kg
Acute Dietary LC₅₀ – Bobwhite Quail: 808 ppm
Acute Dietary LC₅₀ – Mallard Duck: > 5620 ppm (9.3B)
Bee LD₅₀ (48hr) 0.18 µg/bee (contact), Oral LD₅₀ (48hr) > 1,000 ppm/bee. (9.4A)

13. DISPOSAL CONSIDERATION

Triple rinse container and add rinsate to spray tank, burn, if circumstances, especially wind direction permit, otherwise dispose of at an approved landfill. Dispose of this product only by using in accordance with label directions. Dispose of solid contaminated material/or contaminated soil in an approved landfill. Disposal must be in accordance with applicable local regulations.

14. TRANSPORTATION INFORMATION

Proper Shipping Name Environmentally Hazardous Substance, Solid, N.O.S. (Indoxacarb)

Hazard Class Class 9

UN NO. UN3077

Packing Group PG III

15. REGULATORY INFORMATION

HSNO Approval Code HSR100291

Approved Handler This product must be under the control of an approved handler during use.



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16. OTHER INFORMATION

Glossary

ACGIH	American Conference of Governmental Industrial Hygienists.
DT ₅₀	Time(days) for 50%loss.
EC ₅₀	Median effective concentration.
EEL	Environmental Exposure Limit.
ERMA	Environmental Risk Management Authority
HSNO	Hazardous Substances and New Organisms.
IARC	International Agency for Research on Cancer.
K _{oc}	Organic carbon partition coefficient (ml soil water/g organic carbon)
LC ₅₀	Lethal concentration that will kill 50% of the test organisms inhaling or ingesting it.
LD ₅₀	Lethal dose to kill 50% of test animals/organisms.
NOEL	No observable effect level.
OSHA	American Occupational Safety and Health Administration.
P _{ow}	The octanol-water partition coefficient is the ratio of the concentration of a chemical in octanol and in water at equilibrium at a specified temperature.
TEL	Tolerable Exposure Limit.
TLV	Threshold Limit Value-an exposure limit set by responsible authority.
WES	Workplace Exposure Limit

Miscellaneous

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 (New Zealand) Limited
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