

1. IDENTIFICATION

Product name: **KARMEX® DF (PCP 28543)**
 Chemical name of active ingredient(s): Diuron: (3-(3,4-dichlorophenyl)-1,1-dimethylurea)
 Manufacturer/Registrant: ADAMA Agricultural Solutions Canada Ltd.
 302-179 McDermot Ave.
 Winnipeg, Manitoba, Canada
 Phone: 1-855-264-6262
 For fire, spill, and/or leak emergencies, contact Infotrac: Phone: 1-800-535-5053
 For medical emergencies and health and safety inquiries, contact Prosar: Phone: 1-877-250-9291

2. HAZARDS IDENTIFICATIONS**PHYSICAL PROPERTIES:**

Appearance: Brown granule
 Odor: Odorless

EMERGENCY OVERVIEW: WARNING Contains the allergen sulfites - KEEP OUT OF REACH OF CHILDREN. CAUTION. Causes eye irritation. May irritate eyes, nose, throat and skin. Do not get in eyes. Avoid breathing dust or spray mist. Avoid contact with skin and clothing. Wash thoroughly with soap and water after handling.

POTENTIAL HEALTH EFFECTS:

Skin contact with Diuron may cause skin irritation with discomfort or rash. Significant skin permeation and systemic toxicity after contact appear unlikely. There are no reports of human sensitization.

Eye contact with Diuron may cause eye irritation with discomfort, tearing, or blurring of vision.

Based on data from animal testing, ingestion of large amounts may cause alterations in red blood cell counts and/or anemia, and spleen and liver effects.

No adequate epidemiologic studies are available for this compound.

3. COMPOSITION/INFORMATION ON INGREDIENTS

COMMON NAME	CAS NO.	%	OSHA PEL	ACIGH TLV	OTHER	NTP/IARC/OSHA (Carcinogen)
Diuron	330-54-1	80	NA	10 mg/m ³	NA	NA
NA: Not applicable.						

4. FIRST AID**FIRST AID****IF ON SKIN OR CLOTHING:**

Take off contaminated clothing. Rinse skin immediately with plenty of water for 15–20 minutes. Call a poison control centre 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 centre or doctor for further treatment advice.

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 centre or doctor for treatment advice.

IF SWALLOWED:

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

Take container, label or product name and Pest Control Product registration Number with you when seeking medical attention.

TOXICOLOGICAL INFORMATION: Treat symptomatically.

5. FIRE FIGHTING MEASURES

FLASHPOINT: Not determined

FLAMMABLE LIMITS (% in air): 0.070 g/L

AUTOIGNITION TEMPERATURE: 445°C (851°F)

UNUSUAL FIRE, EXPLOSION AND REACTIVITY HAZARDS: Like most organic powders or crystals, under severe dusting conditions, this material may form explosive mixtures in air. Prevent human exposure to fire, smoke, fumes or products of combustion.

EXTINGUISHING MEDIA: Dry Chemical, CO₂, Water Spray, Foam. If area is heavily exposed to fire, and conditions permit, let fire burn itself out since water may increase the area contaminated.

SPECIAL FIRE FIGHTING PROCEDURES: Wear self-contained breathing apparatus (SCBA) and full protective equipment.

6. ACCIDENTAL RELEASE MEASURES

IN CASE OF SPILLS OR LEAKS: Review Fire Fighting Measures and Handling sections before proceeding with clean-up. Use appropriate PPE during clean-up. Spill Clean Up: Dike spill. Prevent material from entering sewers, waterways, or low areas. Shovel or sweep up. For minor spills, leaks, etc., follow all precautions indicated on the product label and clean up immediately. Take special care to avoid contamination of equipment and facilities during clean-up procedures and disposal of wastes.

7. HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING: Avoid contact with skin and eyes. Prevent eating, drinking, tobacco usage, and cosmetic application in areas where there is a potential for exposure to the material. Always wash thoroughly after handling. Do not contaminate water, food or feed by storage, disposal or by cleaning equipment.

PRECAUTIONS TO BE TAKEN IN STORAGE: Store in original container only, away from other pesticides, fertilizer, food, or feed.

STORAGE TEMPERATURE (MIN/MAX): Normal ambient temperatures. Avoid excessive heat.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

THE FOLLOWING RECOMMENDATIONS FOR EXPOSURE CONTROLS/PERSONAL PROTECTION ARE INTENDED FOR THE MANUFACTURE, FORMULATION, PACKAGING AND USE OF THIS PRODUCT.

FOR COMMERCIAL APPLICATIONS AND/OR ON-FARM APPLICATIONS CONSULT THE PRODUCT LABEL.

EYE PROTECTION: Protective eyewear (e.g., goggles or full-face shield).

SKIN PROTECTION: Long-sleeved shirt and long pants, shoes plus socks. Use apron and coveralls when necessary.

HAND PROTECTION: Chemical-resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride.

RESPIRATOR REQUIREMENTS: A NIOSH approved dust/mist filtering respirator with any N, R, P, or HE filter or with approval number prefix TC-21C.

ADDITIONAL PROTECTIVE MEASURES: Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

USER SAFETY RECOMMENDATIONS:

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.

EXPOSURE GUIDELINES: Refer to Section 2.

ENGINEERING CONTROLS: Use adequate ventilation to minimize airborne concentrations of this material.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Brown granule

ODOR: Odorless

pH: 6.8-7.9

BULK DENSITY: 40 lbs/ft³

SOLUBILITY IN WATER : Dispersible. Diuron's solubility in water is 42 ppm

10. STABILITY AND REACTIVITY

STABILITY: Stable under normal conditions.

HAZARDOUS POLYMERIZATION: Will not occur.

CONDITIONS TO AVOID: Excessive heat.

MATERIALS TO AVOID: None known.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY/IRRITATION STUDIES

Acute Oral LD50 (Rat):	> 5,000 mg/kg
Acute Dermal LD50 (Rabbit):	> 5,000 mg/kg
Acute Inhalation LC50 (Rat):	> 2.02 mg/L
Eye Irritation (Rabbit):	Moderately irritating.
Dermal Irritation (Rabbit):	Mildly irritating.
Dermal Sensitization:	Not a skin sensitizer

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL HAZARDS: Toxic to aquatic organisms and terrestrial plants. Observe buffer zones specified under **DIRECTIONS FOR USE**. Do not apply directly to aquatic habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs or wetlands) and estuarine/marine habitats. Do not contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes.

To reduce runoff from treated areas into aquatic habitats, consider the characteristics and conditions of the site before treatment. Site characteristics and conditions that may lead to runoff include, but are not limited to, heavy rainfall, moderate to steep slope, bare soil, poorly draining soil (e.g. soils that are compacted, fine textured or low in organic matter such as clay). Avoid application of this product when heavy rain is forecast. The use of this chemical may result in contamination of groundwater, particularly in areas where soils are permeable (e.g. sandy soil) and/or where the depth to the water table is shallow.

ENVIRONMENTAL TOXICITY:

AQUATIC TOXICITY:

96 hour LC50 - Rainbow trout: 190 mg/L.

96 hour LC50 - Bluegill sunfish: > 300 mg/L

13. DISPOSAL CONSIDERATIONS

PESTICIDE DISPOSAL: For information on disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency.

CONTAINER DISPOSAL: Completely empty bag into spray mixture tank. Make the empty bag unsuitable for further use. Dispose of the container in accordance with provincial requirements.

14. TRANSPORT INFORMATION

DOT CLASSIFICATION:

Package size <125 lbs.: Not regulated

Package size ≥125 lbs.: UN 3077, Environmentally hazardous substances, solid, N.O.S. (Diuron), 9, PG III, RQ

CANADA TRANSPORTATION: This material is Not Regulated by TDG.

INTERNATIONAL TRANSPORTATION:

IMO (vessel):

Package size <125 lbs.: Not regulated

Package size ≥125 lbs.: UN 3077, Environmentally hazardous substances, solid, N.O.S. (Diuron), 9, PG III, RQ

IATA (air):

Package size <125 lbs.: Not regulated

Package size ≥125 lbs.: UN 3077, Environmentally hazardous substances, solid, N.O.S. (Diuron), 9, PG III, RQ

15. REGULATORY INFORMATION

CANADIAN REGULATIONS:

This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

U.S. FEDERAL REGULATIONS:

SARA TITLE III CLASSIFICATION:

Section 302: Not applicable.

Section 311/312: Acute health hazard (immediate)

Chronic health hazard (delayed)

Section 313: Diuron (80%) CAS#: 330-54-1

CA PROPOSITION 65: This product contains a material (diuron) known to the State of California to cause cancer.

CERCLA RQ: Diuron 100 lbs. (125 lbs. of product)

RCRA CLASSIFICATION: Under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste.

TSCA STATUS: The ingredients of this product are listed on the TSCA inventory or are exempt.

16. OTHER INFORMATION

NFPA HAZARD RATINGS	NFPA	HMIS	
HEALTH:	1	2	0 LEAST
FLAMMABILITY:	1	1	1 SLIGHT
REACTIVITY:	0	0	2 MODERATE
			3 HIGH
			4 SEVERE

MSDS DATE: 6-5-2015. Supersedes versions dated 5-3-12. Changes made to Section 1.

The information herein is given in good faith, but no warrant, express or implied, is made. Consult ADAMA Agricultural Solutions Canada Ltd. for further information.