

### SECTION 1: Identification

#### 1.1. Identification

Product form : Mixture  
 Name : Diacon IGR Plus  
 Synonyms : EPA Reg. No.: 89459-86, 100527697, 100527167, RF2226 DM Combo Grain EC

#### 1.2. Recommended use and restrictions on use

Recommended use : Insecticide. Insect growth regulator.  
 Restrictions on use : Avoid contact with skin and eyes. Keep out of reach of children. Do NOT take internally. Do not inhale.

#### 1.3. Supplier

Central Garden & Pet  
 1501 E. Woodfield Road, Suite 200W  
 Schaumburg, IL 60173 - United States  
 www.bugfreegrains.com

#### 1.4. Emergency telephone number

Emergency number : 1-800-248-7763  
 1-800-424-9300 - CHEMTREC  
 1-703-527-3887 - CHEMTREC - Outside North America - Collect Calls Accepted

### SECTION 2: Hazard(s) identification

#### 2.1. Classification of the substance or mixture

##### GHS US classification

Acute toxicity (oral) Category 3	Toxic if swallowed
Acute toxicity (inhalation) Category 4	Harmful if inhaled
Skin corrosion/irritation Category 2	Causes skin irritation
Serious eye damage/eye irritation Category 2A	Causes serious eye irritation
Skin sensitization, Category 1	May cause an allergic skin reaction

#### 2.2. GHS Label elements, including precautionary statements

##### GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US) :

Danger

Hazard statements (GHS US) :

Toxic if swallowed  
 Causes skin irritation  
 May cause an allergic skin reaction  
 Causes serious eye irritation  
 Harmful if inhaled

Precautionary statements (GHS US) :

Avoid breathing dust/fume/gas/mist/vapors/spray.  
 Wash hands, forearms and face thoroughly after handling.  
 Do not eat, drink or smoke when using this product.  
 Use only outdoors or in a well-ventilated area.  
 Contaminated work clothing must not be allowed out of the workplace.  
 Wear protective gloves/protective clothing/eye protection/face protection.  
 If swallowed: Immediately call a poison center or doctor.  
 Rinse mouth.  
 IF ON SKIN: Wash with plenty of water.  
 If skin irritation or rash occurs: Get medical advice/attention.  
 If inhaled: Remove person to fresh air and keep comfortable for breathing.  
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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If eye irritation persists: Get medical advice/attention.  
Call a poison center or doctor if you feel unwell.  
Take off contaminated clothing and wash it before reuse.  
Store locked up.  
Dispose of contents/container in accordance with local/regional/national/international regulations.

### 2.3. Other hazards which do not result in classification

Other hazards which do not result in classification : This product is extremely toxic to fresh water and estuarine fish and invertebrates. This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

### 2.4. Unknown acute toxicity (GHS US)

Not applicable

## SECTION 3: Composition/Information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Name	Product identifier	%
Deltamethrin	(CAS-No.) 52918-63-5	4.75
(s)-Methoprene Technical	(CAS-No.) 65733-16-6	11.4
Alkyl (C10-16 benzenesulfonic acid, calcium salt	(CAS-No.) 68584-23-6	14.05 – 17.89
2-Ethylhexanol	(CAS-No.) 104-76-7	8.94 – 11.5
Non-hazardous and/or does not meet criteria for classification	(CAS-No.) N/A	Balance

## SECTION 4: First-aid measures

### 4.1. Description of first aid measures

First-aid measures after inhalation : IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

First-aid measures after skin contact : IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention.

First-aid measures after eye contact : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice and attention.

First-aid measures after ingestion : IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth. Call a poison center/doctor/physician if you feel unwell. Do NOT induce vomiting unless directed to do so by medical personnel.

### 4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after inhalation : Harmful if inhaled.

Symptoms/effects after skin contact : Causes skin irritation. May cause an allergic skin reaction.

Symptoms/effects after eye contact : Causes eye irritation.

Symptoms/effects after ingestion : Toxic if swallowed.

### 4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

## SECTION 5: Fire-fighting measures

### 5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Use water fog, alcohol resistant foam, carbon dioxide, or dry chemical.

Unsuitable extinguishing media : Avoid heavy hose streams.

### 5.2. Specific hazards arising from the chemical

Reactivity : The product is non-reactive under normal conditions of use, storage and transport.

### 5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions : Do not allow fire fighting water to escape into waterways or sewers. Evacuate area. Keep unauthorized personnel away. Large fires: Dike fire control water for later disposal. Stay upwind. Ventilate closed spaces before entering. Do not breathe gas/fumes/vapor/spray.

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

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### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

General measures : Avoid electrical portions of equipment due to the possibility of shock hazard.

##### 6.1.1. For non-emergency personnel

Emergency procedures : Avoid contact with skin and eyes. Do not touch or walk on the spilled product. Ventilate spillage area. Wear appropriate personal protective equipment, avoid direct contact.

##### 6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: Exposure controls/personal protection.

Emergency procedures : Ventilate area. Wear appropriate personal protective equipment, avoid direct contact. Do not touch spilled material. Do NOT wash away into sewer. Avoid release to the environment. Evacuate unnecessary personnel. Stay upwind. Stop leak if safe to do so.

#### 6.2. Environmental precautions

Avoid release to the environment.

#### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Absorb spills with an inert material, clay granules or other inert absorbent material and put in container for disposal. Use appropriate PPE.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Do not handle until all safety precautions have been read and understood. Wear personal protective equipment. Do not use this product in or on electrical equipment due to the possibility of shock hazard.

Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

#### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Avoid extreme temperatures. Store in a well-ventilated place. Keep cool. Do not store near heat or open flame. Keep container closed when not in use. Keep only in original container. Store locked up.

Incompatible materials : Strong oxidizers.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

No additional information available

#### 8.2. Appropriate engineering controls

Appropriate engineering controls : Adequate ventilation systems as needed to control concentrations of airborne contaminants below applicable threshold limit values.

Environmental exposure controls : Avoid release to the environment.

#### 8.3. Individual protection measures/Personal protective equipment

##### Hand protection:

Protective gloves

##### Eye protection:

Safety glasses

##### Skin and body protection:

It is recommended for handlers to wear appropriate clothing to prevent skin contact including long sleeves, long pants, socks and shoes.

##### Respiratory protection:

In case of insufficient ventilation, use NIOSH approved respiratory protection.

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### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Clear pale yellow to amber liquid
Color	: Pale yellow to amber
Odor	: Moderate unpleasant, paint-like
Odor threshold	: No data available
pH	: 6.4 @ 25 °C (77 °F)
Melting point	: No data available
Freezing point	: Not applicable
Boiling point	: No data available
Flash point	: 116 °C (241 °F)
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: No data available
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: 1.04 g/ml
Bulk density	: 8.68 lb/gal
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: Not applicable
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: 50 cPs
Explosion limits	: Not applicable
Explosive properties	: Not explosive
Oxidizing properties	: Not applicable

#### 9.2. Other information

No additional information available

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

#### 10.2. Chemical stability

Stable under normal conditions.

#### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use. Hazardous polymerization will not occur.

#### 10.4. Conditions to avoid

Avoid extreme temperatures. Avoid electrical portions of equipment due to the possibility of shock hazard.

#### 10.5. Incompatible materials

Strong oxidizing agents.

#### 10.6. Hazardous decomposition products

Decomposes upon heating to produce toxic gases which may include: oxides of carbon, oxides of nitrogen and/or volatile hydrocarbon vapors.

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

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LD50 oral rat	175 mg/kg
LD50 dermal rabbit	> 5000 mg/kg
LC50 Inhalation - Rat	> 2.12 mg/l/4h

GHS-US Properties	Classification
Acute toxicity (oral)	Toxic if swallowed.
Acute toxicity (dermal)	Not classified
Acute toxicity (inhalation)	Harmful if inhaled.
Skin corrosion/irritation	Causes skin irritation.
Serious eye damage/irritation	Causes serious eye irritation.
Respiratory or skin sensitization	May cause an allergic skin reaction.
Germ cell mutagenicity	Not classified
Carcinogenicity	Not classified
Reproductive toxicity	Not classified
Specific target organ toxicity (single exposure)	Not classified
Specific target organ toxicity (repeated exposure)	Not classified
Aspiration hazard	Not classified

### Potential health effects

#### Inhalation

Acute : Harmful if inhaled.

#### Skin

Acute : May be harmful if absorbed through skin. May cause a transient, localized parasthesia, characterized by tingling, burning or numbness sensation in some individuals. Causes skin irritation.

#### Eye

Acute : Causes eye irritation.

#### Ingestion

Acute : Toxic if ingested.

#### Mutagenicity

: Deltamethrin has been tested and found negative for mutagenicity potential. (s)-Methoprene has been tested and found negative for mutagenicity potential.

#### Carcinogenicity

: Deltamethrin was not carcinogenic in lifetime feeding studies in rats and mice. (s)-Methoprene is not classified as a carcinogen by NTP, IARC or OSHA.

#### Reproductive Effects

: Deltamethrin is not a reproductive toxin and does not cause birth defects. (s)-Methoprene is not a reproductive toxin and does not cause birth defects.

## SECTION 12: Ecological information

### 12.1. Toxicity

Deltamethrin (52918-63-5)	
LC50 Acute fish 3	0.00174 mg/l (Exposure time: 96h - poecilia reticulata)
EC50 - Crustacea [1]	0.00415 mg/l (Exposure time: 24h - Daphnia magna)
(s)-Methoprene Technical (65733-16-6)	
LC50 Acute fish 1	0.76 mg/l (Exposure time: 96hr Oncorhynchus mykiss)
LC50 Acute fish 2	> 0.37 mg/l (Exposure time: 96h - Blue gill)
LC50 Acute crustacea 1	0.11 mg/l (Exposure time: 96h - Mysid shrimp)
LC50 Acute crustacea 2	0.36 mg/l (Exposure time: 48h Daphnia)
NOEC Chronic fish 1	0.048 mg/l (Fathead minnow)
NOEC Chronic crustacea 1	0.014 mg/l (Mysid shrimp)

### 12.2. Persistence and degradability

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Deltamethrin (52918-63-5)	
Persistence and degradability	Deltamethrin: Hydrolytic Half-Life: 2.28-2.70 days @ pH 9.0 Photolytic Half-Life: 64-86 days (water); 9 days (soil) Soil Half-Life: 14-40 days (cropped plots); 37-69 days (bare ground) in field dissipation studies.
(s)-Methoprene Technical (65733-16-6)	
Persistence and degradability	(s)-Methoprene degrades rapidly in sunlight, both in water and on inert surfaces. The pesticide also is metabolized rapidly in soil and does not leach. Thus, it should not persist in soil or contaminate ground water.

### 12.3. Bioaccumulative potential

No data available

### 12.4. Mobility in soil

Deltamethrin (52918-63-5)	
Mobility in soil	The major routes of dissipation are soil binding and soil microbial degradation. Although soil binding is strong, it is not immediate. It appears that spray drift is the only significant route of exposure to aquatic organism. However, deltamethrin's strong binding capacity to slime, plants, sediment, etc., might rapidly prevent the availability of deltamethrin for bioconcentration in aquatic systems. Additionally, its insolubility in water will be a factor in limiting its bioconcentration as well. Deltamethrin hydrolyzes under alkaline conditions. Leaching studies indicate that Deltamethrin is immobile.
(s)-Methoprene Technical (65733-16-6)	
Mobility in soil	Rapidly metabolized in soil under both aerobic and anaerobic conditions (half-life 10-14 days).

### 12.5. Other adverse effects

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Ecological Fate	This product is extremely toxic to fresh water and estuarine fish and invertebrates. This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds.

## SECTION 13: Disposal considerations

### 13.1. Disposal methods

Product/Packaging disposal recommendations : Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

## SECTION 14: Transport information

	UN number	Proper Shipping Name	Transport hazard class(es)	Packing group	Environmental hazards
DOT	UN3352	Pyrethroid pesticide, liquid toxic (Deltamethrin)	6.1	III	Not applicable
IMDG	UN3352	Pyrethroid pesticide, liquid toxic (Deltamethrin)	6.1	III	Marine pollutant
IATA	UN3082	Pyrethroid pesticide, liquid toxic (Deltamethrin)	9	III	Not applicable

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

Alkyl (C10-16 benzenesulfonic acid, calcium salt (68584-23-6)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
2-Ethylhexanol (104-76-7)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
EPA TSCA Regulatory Flag	TP - TP - indicates a substance that is the subject of a proposed TSCA section 4 test rule.
EPA Labelling	
EPA Registration Number	89459-86

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This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.	
FIFRA Hazard statements	<b>Warning</b>
FIFRA Precautionary statements	KEEP OUT OF REACH OF CHILDREN.
FIFRA Hazards to Humans and Domestic Animals	May be fatal if swallowed. Causes substantial but temporary eye injury. Do not get in eyes, on skin, or on clothing. Wear protective eyewear (goggles, face shield or safety glasses). Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.
FIFRA First aid	IF SWALLOWED: Call a poison control center 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 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: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for further treatment advice.
FIFRA Environmental hazards	This product is extremely toxic to freshwater and estuarine fish and invertebrates. To protect the environment, do not allow pesticide to enter or run off into storm drains, drainage ditches, gutters, or surface waters. Applying this product in calm weather when rain is not predicted for the next 24 hours will help to ensure that wind or rain does not blow or wash pesticide off the treatment area. Rinsing application equipment over the treated area will help avoid run off to water bodies or drainage systems. This pesticide is highly toxic to bees exposed to direct treatment. Do not apply or allow it to drift to crops or weeds on which bees are actively foraging.
FIFRA Physical hazards	Do not use water-based sprays of RF2226 DM Combo Grain EC in conduits, motor housings, junction boxes, switch boxes, or other electrical equipment because of possible shock hazard

### 15.2. US State regulations

No additional information available

## SECTION 16: Other information

Issue date : 09 November 2016  
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Supersedes : 10 March 2017

SDS US (GHS HazCom 2012) - CGP

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