



## Safety Data Sheet

### Section 1: Identification

#### Product identifier

##### Product Name

- **Diacon IGR Plus**

##### Synonyms

- 100527167; EPA Reg. No.: 89459-86; RF2226 DM Combo Grain EC

##### Product Description

- Clear pale yellow to amber liquid.

#### Relevant identified uses of the substance or mixture and uses advised against

##### Recommended use

- Insecticide. Insect growth regulator.

##### Restrictions on use

- **KEEP OUT OF THE REACH OF CHILDREN.** Avoid contact with eyes and skin. Do not inhale. Do not take internally.

#### Details of the supplier of the safety data sheet

##### Manufacturer

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

#### Emergency telephone number

##### Manufacturer

- 1-703-527-3887 - CHEMTREC - Outside North America - Collect Calls Accepted

##### Manufacturer

- 1-800-424-9300 - CHEMTREC

##### Manufacturer

- 1-800-248-7763

### Section 2: Hazard Identification

#### United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

#### Classification of the substance or mixture

##### OSHA HCS 2012

- Acute Toxicity Inhalation 4  
Skin Irritation 2  
Eye Irritation 2A  
Acute Toxicity Oral 3  
Skin Sensitization 1

#### Label elements

##### OSHA HCS 2012

**DANGER**



- Hazard statements**
- Harmful if inhaled
  - Toxic if swallowed
  - Causes skin irritation
  - May cause an allergic skin reaction
  - Causes serious eye irritation

### Precautionary statements

- Prevention**
- Avoid breathing dust, fume, gas, mist, vapors and/or spray.
  - Use only outdoors or in a well-ventilated area.
  - Wash thoroughly after handling.
  - Do not eat, drink or smoke when using this product.
  - Wear protective gloves/protective clothing/eye protection/face protection.
  - Contaminated work clothing should not be allowed out of the workplace.
- Response**
- IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a poison control center or doctor if you feel unwell.
  - Get medical advice/attention if you feel unwell.
  - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
  - Rinse mouth.
  - IF ON SKIN: Wash with plenty of soap and water.
  - If skin irritation occurs: Get medical advice/attention.
  - Take off contaminated clothing and wash before reuse.
  - 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/attention.
- Storage/Disposal**
- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.
  - Store locked up.

### Other hazards

#### OSHA HCS 2012

- This product is extremely toxic to aquatic organisms, including fish and invertebrates. This product is highly toxic to bees exposed to direct treatment. Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

## Section 3 - Composition/Information on Ingredients

### Substances

- Material does not meet the criteria of a substance.

### Mixtures

Composition		
Chemical Name	Identifiers	%
Deltamethrin	CAS:52918-63-5	4.75%
(s)-Methoprene	CAS:65733-16-6	11.4%
Benzenesulfonic acid, C10-16-alkyl derivs., calcium salts	CAS:68584-23-6	14.05% TO 17.89%
2-Ethylhexanol	CAS:104-76-7	8.94% TO 11.5%
Other ingredients	NDA	Balance

## Section 4: First-Aid Measures

## Description of first aid measures

- Inhalation**
- IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing. Call a poison control center or doctor if you feel unwell.
- Skin**
- 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 treatment advice.
- Eye**
- IF IN EYES: Hold eye open and rinse 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.
- Ingestion**
- IF SWALLOWED: Immediately call a poison control center or physician for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless instructed to do so by poison control or physician. Do not give anything by mouth to an unconscious person.

## Most important symptoms and effects, both acute and delayed

- Toxic if swallowed. Harmful if inhaled. May cause an allergic skin reaction. Causes skin irritation. Causes serious eye irritation. General neurological symptoms were exhibited in studies with rats, mice and dogs. These symptoms included unsteadiness, abnormal gait, tremors and liquid feces. Refer to Section 11 - Toxicological Information.

## Indication of any immediate medical attention and special treatment needed

- Notes to Physician**
- Treat symptomatically and supportively.

## Section 5: Fire-Fighting Measures

### Extinguishing media

- Suitable Extinguishing Media**
- SMALL FIRES: Dry chemical, CO<sub>2</sub>, water spray or alcohol-resistant foam.

- Unsuitable Extinguishing Media**
- Avoid heavy hose streams.

- Firefighting Procedures**
- Keep unauthorized personnel away.  
Stay upwind.  
Ventilate closed spaces before entering.

### Special hazards arising from the substance or mixture

- Unusual Fire and Explosion Hazards**
- Do not use water-based sprays in conduits, motor housings, junction boxes, switch boxes, or other electrical equipment because of possible shock hazard.

- Hazardous Combustion Products**
- Thermal degradation may produce oxides of carbon, oxides of nitrogen and/or volatile hydrocarbon vapors.

### Advice for firefighters

- Wear positive pressure self-contained breathing apparatus (SCBA).

## Section 6 - Accidental Release Measures

## Personal precautions, protective equipment and emergency procedures

### Personal Precautions

- Use appropriate Personal Protective Equipment (PPE). Ventilate enclosed areas. Do not walk through spilled material.

### Emergency Procedures

- Do not allow runoff into water, storm drains or drainage ditches. Stay upwind. Wear appropriate personal protective equipment (PPE). Keep unauthorized personnel away.

## Environmental precautions

- Do not allow runoff into water, storm drains or drainage ditches.

## Methods and material for containment and cleaning up

### Containment/Clean-up Measures

- Absorb with earth, sand or other non-combustible material and transfer to containers. Use appropriate Personal Protective Equipment (PPE).

## Section 7 - Handling and Storage

### Precautions for safe handling

#### Handling

- Avoid contact with skin, eyes, and clothing. Keep away from heat, sparks, and flame. Use only in well ventilated areas. Wear appropriate personal protective equipment, avoid direct contact. Avoid breathing fumes. Read label before use. Wash hands thoroughly with soap and water after handling. Do not take internally.

### Conditions for safe storage, including any incompatibilities

#### Storage

- Avoid extreme temperatures. Store in a tightly closed container. Store in a well ventilated place. Store in cool, dry area, inaccessible to children. Store in original container. Store locked up. Ventilate enclosed areas.

### Incompatible Materials or Ignition Sources

- Strong acids, strong bases, and oxidizing agents. Do not use water-based sprays in conduits, motor housings, junction boxes, switch boxes, or other electrical equipment because of possible shock hazard.

## Section 8 - Exposure Controls/Personal Protection

### Control parameters

### Exposure controls

#### Engineering Measures/Controls

- Use adequate ventilation to remove vapors (fumes, dust etc.)

#### Personal Protective Equipment

##### Pictograms



##### Respiratory

- If handling without sufficient ventilation, wear a NIOSH approved respirator.

##### Eye/Face

- Wear chemical splash safety goggles.

##### Hands

- Wear chemical resistant gloves.

##### Skin/Body

- It is recommended for handlers to wear appropriate clothing to prevent skin contact

including long sleeves, long pants, socks and shoes.

### Environmental Exposure Controls

- Controls should be engineered to prevent release to the environment, including procedures to prevent spills, atmospheric release and release to waterways.

## Section 9 - Physical and Chemical Properties

### Information on Physical and Chemical Properties

Material Description			
Physical Form	Liquid	Appearance/Description	Clear pale yellow to amber liquid.
Color	Pale yellow to amber.	Odor	Moderate unpleasant, paint-like.
Odor Threshold	No data available		
General Properties			
Boiling Point	No data available	Melting Point/Freezing Point	No data available
Decomposition Temperature	No data available	pH	6.4 @ 25°C
Specific Gravity/Relative Density	1.04 g/ml @ 20°C (8.68 lb/gal)	Water Solubility	No data available
Viscosity	50 cPs	Explosive Properties	No data available
Volatility			
Vapor Pressure	No data available	Vapor Density	No data available
Evaporation Rate	No data available		
Flammability			
Flash Point	97.5 °C(207.5 °F)	UEL	No data available
LEL	No data available	Autoignition	No data available
Flammability (solid, gas)	No data available		
Environmental			
Octanol/Water Partition coefficient	No data available		

## Section 10: Stability and Reactivity

### Reactivity

- Non-reactive under normal handling and storage conditions.

### Chemical stability

- Stable under normal temperatures and pressures.

### Possibility of hazardous reactions

- Hazardous polymerization will not occur.

### Conditions to avoid

- Keep away from fire. Direct sunlight. Extreme temperatures.

### Incompatible materials

- Strong acids, strong bases and oxidizing agents.

### 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

### Information on toxicological effects

	CAS	
Diacon IGR Plus	NDA	<b>Acute Toxicity:</b> Ingestion/Oral-Rat LD50 • 175 mg/kg; Inhalation-Rat LC50 • >2.1 mg/L 4 Hour(s); Skin-Rabbit LD50 • >5000 mg/kg; <b>Irritation:</b> Eye-Rabbit • Severe irritation; Skin-Rabbit • Moderate irritation

GHS Properties	Classification
Acute toxicity	OSHA HCS 2012 • Acute Toxicity - Dermal - Classification criteria not met; Acute Toxicity - Inhalation 4; Acute Toxicity - Oral 3
Skin corrosion/Irritation	OSHA HCS 2012 • Skin Irritation 2
Serious eye damage/Irritation	OSHA HCS 2012 • Eye Irritation 2A
Skin sensitization	OSHA HCS 2012 • Skin Sensitizer 1
Respiratory sensitization	OSHA HCS 2012 • Classification criteria not met
Aspiration Hazard	OSHA HCS 2012 • Classification criteria not met
Carcinogenicity	OSHA HCS 2012 • Classification criteria not met
Germ Cell Mutagenicity	OSHA HCS 2012 • Classification criteria not met
Toxicity for Reproduction	OSHA HCS 2012 • Classification criteria not met
STOT-SE	OSHA HCS 2012 • Classification criteria not met
STOT-RE	OSHA HCS 2012 • Classification criteria not met

**Route(s) of entry/exposure** • Inhalation, Skin, Eye, Ingestion.

### Potential Health Effects

#### Inhalation

- Acute (Immediate)** • Harmful if inhaled.
- Chronic (Delayed)** • No data available.

#### Skin

- Acute (Immediate)** • 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.
- Chronic (Delayed)** • No data available

#### Eye

- Acute (Immediate)** • Causes serious eye irritation.
- Chronic (Delayed)** • No data available

#### Ingestion

- Acute (Immediate)** • Toxic if ingested.
- Chronic (Delayed)** • No data available

#### Mutagenic Effects

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

**Carcinogenic Effects**

- Deltamethrin was not carcinogenic in lifetime feeding studies in rats and mice. (s)-Methoprene is not classified as carcinogen by NTP, IARC and OSHA. No other components present at 0.1% or greater are listed by IARC, OSHA or NTP.

**Reproductive Effects**

- Deltamethrin does not cause birth defects or adverse effects on reproduction. (s)-Methoprene is not a reproductive toxin.

**Section 12 - Ecological Information****Toxicity**

Components		
Deltamethrin (4.75%)	52918-63-5	<b>Aquatic Toxicity-Fish:</b> 96 Hour(s) LC50 <i>Poecilia reticulata</i> 0.00174 mg/L [Acute] <b>Aquatic Toxicity - Crustacea:</b> 24 hour EC50 <i>Daphnia magna</i> 0.00415 mg/L [Acute]
(s)-Methoprene (11.4%)	65733-16-6	<b>Aquatic Toxicity-Fish:</b> 96 Hour(s) LC50 <i>Rainbow Trout</i> 0.76 mg/L [Acute] 96 Hour(s) LC50 <i>Blue Gill</i> >0.37 mg/L [Acute] NOEC <i>Fathead minnow</i> 0.048 mg/L [Chronic] <b>Aquatic Toxicity-Crustacea:</b> NOEC <i>Mysid shrimp</i> 0.014 mg/L [Chronic] 96 Hour(s) LC50 <i>Mysid shrimp</i> 0.11 mg/L [Acute] 48 Hour(s) LC50 <i>Daphnia magna</i> 0.36 mg/L [Acute]

**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.

**Bioaccumulative potential**

- No data available

**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.

**Other adverse effects****Potential Environmental Effects**

- This product is extremely toxic to fresh water and estuarine fish and invertebrates. This product is highly toxic to bees exposed to direct treatment.

**Section 13 - Disposal Considerations****Waste treatment methods****Product waste**

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

**Packaging waste**

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations. See product label for disposal instructions.

## Section 14 - Transport Information

	UN number	UN proper shipping name	Transport hazard class(es)	Packing group	Environmental hazards
DOT	Not Applicable	Not Regulated	Not Applicable	Not Applicable	Not Applicable
IMO/IMDG	UN3082	Packaging 5 L or greater: Environmentally hazardous substance, liquid, n.o.s. (Deltamethrin)	9	III	Marine Pollutant
IATA/ICAO	UN3082	Packaging 5 L or greater: Environmentally hazardous substance, liquid, n.o.s. (Deltamethrin)	9	III	Acute Aquatic Toxicity

**Special precautions for user** • No data available

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** • No data available

**Other information**

**IMO/IMDG** • No data available

**IATA/ICAO** • No data available

## Section 15 - Regulatory Information

### Safety, health and environmental regulations/legislation specific for the substance or mixture

**SARA Hazard Classifications** • Acute

**FIFRA – Pesticide Labeling**

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.

**WARNING**

**Precautionary Statements** • KEEP OUT OF REACH OF CHILDREN.

**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.

**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 by a poison control center or doctor. • Do not give anything 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. • 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 treatment advice.

#### Environmental Hazards •

This product is extremely toxic to fresh water 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.

#### Physical or Chemical Hazards •

Do not use water-based sprays of RF2226 DM Combo in conduits, motor housings, junction boxes, switch boxes, or other electrical equipment because of possible shock hazard.

Inventory		
Component	CAS	TSCA
(s)-Methoprene	65733-16-6	No
2-Ethylhexanol	104-76-7	Yes
Benzenesulfonic acid, C10-16-alkyl derivs., calcium salts	68584-23-6	Yes
Deltamethrin	52918-63-5	No

### Section 16 - Other Information

<b>Revision Date</b>	• 09/November/2016
<b>Last Revision Date</b>	• 09/November/2016
<b>Preparation Date</b>	• 09/November/2016
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