



# Safety Data Sheet

Issue Date: 11/30/2015

Revision Date:

Version: 1

## 1. Identification of the Substance/Preparation and of the Company/Undertaking

### Product Identifier

**Product Name:** Regal O-O Herbicide

### Other means of identification

**Product Code:**

**EPA Pesticide Registration Number:** 48234-10

### Recommended use of the chemical and restrictions on use

**Recommended use:** Herbicide

### Details of the supplied of the safety data sheet

#### **Company Name:**

Regal Chemical Company  
600 Branch Dr,  
Alpharetta, GA 30004

#### **Emergency telephone number**

**Company Telephone:** (770) 475-4837

**Emergency Telephone:** Chemtrec 1-800-262-8200

## 2. Hazardous Identification

### **Classification:**

Aquatic Hazard (Acute) – Category 1

Aquatic Hazard (Long-Term) – Category 1

**OSHA Regulatory Status:** This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

**Signal Word:** Warning

**Hazard statements:** Very toxic to aquatic life with long lasting effects.



### **Precautionary Statements**

**General:** Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.

**Prevention:** Avoid release to the environment.

**Response:** Collect spillage.



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**Storage:** Not applicable.

**Disposal:** Dispose of contents and container in accordance with all local, regional, national and international regulations.

**Hazards not otherwise classified (HNOC):** None known.

## 3. Composition/Information on Ingredients

<u>Component</u>	<u>CASRN</u>	<u>Concentration</u>
Oxyfluorfen	42874-03-3	2%
Oxadiazon	19666-30-9	1%

## 4. First Aid Measures

### First aid measures:

**Eye Contact** – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a poison control center or doctor for treatment advice.

**Skin Contact** – IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. Call a poison control center or doctor for treatment advice.

**Inhalation** – Give oxygen if breathing is difficult. If breathing has stopped, call 911, give artificial respiration. However, it may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Seek medical attention for further treatment.

**Ingestion** – Immediately call a poison center or doctor/physician. Do not induce vomiting, unless directed by medical personnel. Never give anything by mouth to an unconscious person.

### Most Important systems and effects, both acute and delayed:

Eye contact: Causes moderate eye irritation.

Inhalation: Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

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

**Note to physicians:** Treat symptomatically. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

**Specific treatments:** No specific treatment.

**Protection of first-aiders:** No action shall be taken involving any personal risk without suitable training. It may be dangerous to the person providing first aid to give mouth-to-mouth resuscitation.

## 5. Fire-Fighting Measures

**Suitable extinguishing media:** Water spray (fog). Foam. Carbon dioxide (CO<sub>2</sub>). Dry Chemical.



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**Unsuitable extinguishing media:** None known.

**Specific hazards arising from the chemical:** This material is very toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

**Hazardous thermal decomposition products:** Decomposition products may include the following materials:

- Carbon dioxide
- Carbon monoxide
- Nitrogen oxides
- Halogenated compounds

## **Protective equipment and precautions for firefighters**

**Personal Precautions:** Wear protective clothing as described in Section 8 of this safety data sheet. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Ventilate affected area.

**Environmental Precautions:** Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information. See Section 13: DISPOSAL CONSIDERATIONS.

## **6. Accidental Release Measures**

### **Personal precautions, protective equipment and emergency procedures**

**Non-emergency personnel:** No action shall be taken involving any personal risk or without suitable training. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

**Emergency responders:** If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

### **Environmental Precautions:**

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

### **Methods and material for containment and cleaning up**

**Small spill:** Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

**Large spill:** Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal



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according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

**Methods for cleaning up:** Do not flush to sewer. Contain and collect with an inert absorbent and place into an appropriate container for disposal. Notify appropriate governmental agencies if there is a danger to the public or if there is a reportable release to the environment.

## 7. Handling and Storage

### Precautions for safe handling:

**Advice on Safe Handling:** Handle in accordance with good industrial hygiene and safety practice. Use personal protection recommended in Section 8. Avoid contact with skin, eyes or clothing. Wash face, hands, and any exposed skin thoroughly after handling. Wash contaminated clothing before reuse. Use in accordance with product label instructions. Do not eat, drink, smoke, or apply cosmetics while handling this product. Follow all product label instructions. Use only as directed. Provide adequate ventilation. Avoid release into the environment. Do not empty into drains.

**Conditions for safe storage, including any incompatibilities:** Store in original tightly closed container in a cool, dry and well-ventilated place. Keep out of reach of children. Keep and store only in original container. Store at ambient conditions. Do not contaminate water, food, or feed by storage or disposal. Protect from dampness and humidity. Store away from incompatible materials, including strong oxidizers, strong acids, strong bases, and mineral acids (see Section 10 of the SDS).

## 8. Exposure Controls/Personal Protection

### Control Parameters

**Exposure Guidelines:** The following information is given as a general guidance.

### Appropriate engineering controls:

**Engineering Controls:** 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 OF END USE PRODUCTS CONTAINING THIS MATERIAL, CONSULT THE SDS OR PRODUCT LABEL FOR THE END USE OF PRODUCT.

### Individual protection measures, such as personal protective equipment

**Eye/Face protection:** Wear safety glasses with side shields (or goggles). Goggles are recommended.

**Skin and body protection:** Wear appropriate clothing to prevent repeated or prolonged skin contact. Wear long-sleeved shirt, long pants, and shoes plus socks. Use chemical resistant gloves, such as P.V.C., butyl-rubber, nitrile-rubber, or neoprene.

**Respiratory Protection:** NIOSH-approved respirator or mask in the absence of adequate ventilation.

**General Hygiene Considerations:** Handle in accordance with good industrial hygiene and safety practice. Wash face, hands and any exposed skin thoroughly after handling. Take off all contaminated clothing and wash it before reuse. Discard clothing and other absorbent materials that have been drenched or



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heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's 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.

## 9. Physical and Chemical Properties

### Information on basic physical and chemical properties

**Physical State:** Solid

**Appearance:** Blue gray granular

**Odor:** Not available

**Odor Threshold:** Not available

#### Property

#### Values

**pH:**

Not available

**Melting point / Freezing Point**

Not available

**Boiling Point / Boiling Range**

Not available

**Flash Point**

Not available

**Evaporation Rate**

Not available

**Flammability (solid, gas)**

Not available

**Upper flammability Limit**

Not available

**Lower flammability Limit**

Not available

**Vapor Pressure**

Not available

**Vapor Density**

Not available

**Bulk Density**

48 lbs/cu. ft.

**Specific Gravity**

Not available

**Water Solubility**

Negligible

**Partition Coefficient**

Not available

**Autoignition Temperature**

Not available

**Decomposition Temperature**

Not available

**Oxidizing Properties**

Not available

## 10. Stability and Reactivity

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

**Chemical Stability:** Material is stable under normal conditions.

**Possibility of Hazardous Reactions:** Not available.

**Hazardous Polymerization:** Not available.

**Conditions to Avoid:** Protect from moisture and heat.

**Incompatible Materials:** Not available.



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**Hazardous Decomposition Products:** High temperature of fire may produce irritating gases and vapors.

## 11. Toxicological Information

### **Information on likely routes of exposure**

#### **Product Information**

**Inhalation:** Inhalation from heated material may cause irritation of nose and throat.

**Eye Contact:** Moderately irritating.

**Skin Contact:** Contact with the eyes or skin may cause irritation. Repeated contact may cause an allergic reaction.

**Ingestion:** Expected to be a low ingestion hazard.

#### **Component Information:**

Oxadiazon 19666-30-9

Oxyfluorfen 42874-03-3

**Oral Ingestion:** Rat, oral LD50 > 5.0 g/kg

### **Information on Toxicological Effects:**

**Symptoms:** Please see section 4 of this SDS for symptoms.

### **Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Carcinogenicity:** Based on the information provided, this product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC, or NTP.

**Reproductive Toxicity:** This product is not expected to cause reproductive or developmental effects.

**STOT – Single Exposure:** Not classified

**STOT – Repeated Exposure:** Not classified

**Aspiration Hazard:** Not available.

**Numerical measures of toxicity:** Not determined

## 12. Ecological Information

**Ecotoxicity:** Very toxic to aquatic life with long lasting effects. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwaters. Regal O-O should not be used in areas where irrigation or rainfall results in the direct or indirect (via ditches and canals) contamination of surface waters through dissolved runoff or erosion of soil particles to which oxadiazon is absorbed.

**Persistence and degradability:** No data is available on the degradability of this product.

**Bioaccumulation:** No data available.

**Other adverse effects:** No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.



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## 13. Disposal Considerations

### Waste treatment methods

**Disposal of wastes:** Pesticide wastes are toxic. 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 of the nearest EPA Regional Office for guidance.

**Contaminated packaging:** Disposal should be in accordance with applicable regional, national and local laws and regulations.

## 14. Transport Information

### DOT

**UN Number:** UN3077

**UN proper shipping name:** Environmentally hazardous substances, solid, n.o.s. (Oxyfluorfen), MARINE POLLUTANT.

**Transport Hazard:** Class 9

**Packing group:** III

**Environmental Hazards:** Marine Pollutant

**Special precautions for user:** Read safety instructions, SDS and emergency procedures before handling.

**Special provisions:** 8, 146, 335, A112, B54, IB8, IP3, N20, T1, TP33

**Packing Exceptions:** 155

**Packaging non bulk:** 213

**Packaging bulk:** 240

### IATA

**UN Number:** UN3077

**UN proper shipping name:** Environmentally hazardous substances, solid, n.o.s. (Oxyfluorfen)

**Transport Hazard:** Class 9

**Packing group:** III

**Environmental Hazards:** No

**ERG Code:** 9L

**Special precautions for user:** Read safety instructions, SDS and emergency procedures before handling.

**Passenger and cargo aircraft:** Allowed

**Cargo aircraft only:** Allowed

### IMDG

**UN Number:** UN3077

**UN proper shipping name:** Environmentally hazardous substances, solid, n.o.s. (Oxyfluorfen), MARINE POLLUTANT

**Transport Hazard:** Class 9

**Packing group:** III

**Environmental Hazards:** Marine Pollutant

**EmS:** F-A, S-F



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ERG Code: 9L

**Special precautions for user:** Read safety instructions, SDS and emergency procedures before handling.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:** Not applicable.

DOT; IATA; IMDG



Marine Pollutant



## 15. Regulatory Information

**US federal regulations:** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910. 1200. One or more components are not listed on TSCA.

### International Inventories

TSCA	Not regulated
DSL/NDL	Not regulated
EINECS	Present
ELINCS	Not regulated
ENCS	Present
IECSC	Present
KECL	Present
PICCS	Not regulated
AICS	Present

### Legend:

**TSCA:** United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDL:** Canadian Domestic Substances List/Non-Domestic Substances List

**EINECS/ELINCS:** European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances.

**ENCS:** Japan Existing and New Chemical Substances

**IECSC:** China Inventory and Existing Chemical Substances

**KECL:** Korean Existing and Evaluated Chemical Substances

**PICCS:** Philippines Inventory of Chemicals and Chemical Substances

**AICS:** Australian Inventory of Chemical Substances





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## Superfund Amendments and Reauthorization Act of 1986 (SARA)

### Hazard Categories

Acute Health Hazard – Yes  
Chronic Health Hazard – No  
Fire Hazard – No  
Pressure Hazard – No  
Reactivity Hazard – No

### SARA 302 Extremely hazardous substance

Not listed

### SARA 311/312 Hazardous chemical

Yes

### SARA 313 (TRI reporting)

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

Chemical Name	CAS No	Weight-%	SARA 313 – Threshold Values
Oxadiazon	19666-30-9	1%	Not known
Oxyfluorfen	42874-03-3	2%	Not known

### Other federal regulations

#### Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

#### Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated

#### Safe Drinking Water Act (SDWA)

Contaminate candidate list

### US state regulations:

#### US. Massachusetts RTK – Substance List

Not regulated

#### US. New Jersey Worker and Community Right-to-Know Act

Oxyfluorfen (CAS 42874-03-3)..... 500 lbs

Oxadiazon (CAS 19666-30-9)

#### US Pennsylvania RTK – Hazardous Substances

Not regulated

#### US Rhode Island RTK

Oxyfluorfen (CAS 42874-03-3)



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**US. California Proposition 65:**

This product contains the following Proposition 65 chemicals.

Chemical Name	California Proposition 65
Oxadiazon – 19666-30-9	Carcinogen Developmental

**EPA Pesticide Registration Number:** 48234-10

**EPA Statement**

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. The requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

**Difference between SDS and EPA pesticide label**

	EPA	OSHA
<b>Signal Word</b>	Caution	N/A
Acute toxicity – Oral	Harmful if swallowed	N/A
Acute toxicity – Dermal	Harmful if absorbed through the skin	N/A
Serious eye damage/eye irritation	Causes moderate eye irritation	N/A

## 16. Other Information

**NFPA:**

**Health Hazards**..... 1  
**Flammability**..... 0  
**Instability**..... 0  
**Physical and Chemical Properties**..... Not determined

**HMIS**

**Health hazards**..... 2  
**Flammability**..... 0  
**Physical hazards**..... 0  
**Personal protection**..... Not determined

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