



# RIGON IFR

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## MATERIAL SAFETY DATA SHEET- MSDS

### 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** RIGON IFR

**Product Code:** 100.053

**Company Name:** ROGAMA INDÚSTRIA E COMÉRCIO LTDA.

Av. Alexandrina das Chagas Moreira, 964, Distrito Industrial.

Pindamonhangaba – SP , CEP: 12412-800

**Tel/ Fax:** (12) 3644-3030

**Emergency Number:** 0800-0141149

**Site and E-mail:**

[www.rogama.com.br](http://www.rogama.com.br)

[sac@rogama.com.br](mailto:sac@rogama.com.br)

### 2. HAZARD IDENTIFICATION

Main Hazards: The product may be toxic to humans and the environmental if not used as recommended.

Products Effects:

Adverse effects to human health: The product can be orally absorbed by the skin and airways. May cause irritation to the skin and eyes.

Environmental effects: exhibit high toxicity to birds, ducks, fish. Aquatic organisms and bees.

Specific Hazards: there isn't other product related dangers.

Main symptoms: If swallowed, may experience nausea, vomiting, abdominal pain, after a few days ecchymosis may occur bleeding. After excessive trauma, nasal, gingival bleeding, bloody urine, in and pale stools, pleural effusion, delayed clotting time and bleeding massive. In more severe cases can lead to death. In contact with skin and eyes can cause mild irritation.

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## 3. HAZARDOUS INGREDIENT INFORMATION

Product Type: Prepared

Ingredients or impurities which contribute to hazards:

<u>Chemical Name</u>	<u>CAS N°</u>	<u>Concentration</u>	<u>Molecular Formula</u>	<u>Synonyms</u>	<u>Classification of the Hazard</u>
3-(3-(4-bromobifenil-4-il)-1, 2,3,4-tetrahydro-1-naftil)-4-hidroxicumarina	56073-10-0	0,005%	C <sub>31</sub> H <sub>23</sub> O <sub>3</sub> BR	Brodifacoum	<b>Classe III</b>

Chemical characterization:

Trade name: RIGON IFR

Common name: Brodifacoum

Chemical Class: Hydroxicoumarinas

Product Class: Rodenticide

## 4. FIRST AID MEASURES

General information: Remove contaminated clothing

After inhalation: remove to fresh air and, if necessary, respiratory aid. Medical assistance.

After contact with skin: Wash thoroughly with soap and water after removing contaminated clothing and shoes. Occurring effects/ symptoms consult a doctor. Wash contaminated clothing before reuse and discard shoes contaminated.

After eye contact: rinse with plenty of water, with eyelids wide open. Search the ophthalmologist.

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After swallowing: contains denatonium benzoate, bitter substance used to prevent accidental ingestion by humans. If ingestion occurs, do not induce vomiting and seek medical attention immediately.

Indications for medical use: RIGON IFR is an anticoagulant. If the poisoning is recent, gastric lavage to proceed. The antidote is to be vitamin K1 administered for the purpose of protecting against anti-coagulant effects when the prothrombin time (PT) is altered (greater than 18 seconds).

Administer 10-50 mg by slow intravenous, in cases of severe bleeding, repeating if necessary, based on the prothrombin time. Should be administered activated charcoal to promote the adsorption of toxic.

## 5. FIRE FIGHTING MEASURES

Non- Flammable product: in burning can release toxic gases.

Suitable extinguishing agents: water "spray" foam, dry chemical and dioxide carbon

Extinguishing media not recommended: n.d

Specific hazards related measures: n.d

Protection of persons involved in fire fighting:

In case of fire:

Use special protective suits and self-contained breathing apparatus.  
Additional information: Contaminated extinguishing water must be disposed of in accordance  
local legislation.

## 6. SPILL/ LEAK CONTROL PROCEDURES

Personal precautions: wear protective clothing, goggles, PVC boots and gloves nitrile, PVC or other impermeable material. For respiratory protection semi facial use or face shields.

Eliminate all sources of ignition: stop and turn off electricity supplies generating sparks.  
Remove any material that may start a fire.

Dust control: signal and isolate the contaminate area. Cover the spill with plastic canvas or apply water fog on the power.



Preventing inhalation and contact with skin, eyes and mucous membranes: use PPE as gloves , mask, safety goggles, long-sleeved shirt and PVC boots.

Environmental precautions: never pour the product into rivers, sewers, plumbing and sources without pre-treatment Effluent Treatment Stations.

Emergency produces: Surrounding the polluted area and mark with danger sign. A strong smell stays long in any contaminated material, denouncing the product. Having contamination sources, lakes or rivers, notify the authorities and residents in the area, so there is no consumption of this water.

Methods for cleaning up: stop the leak, if possible. Isolate the area. Collect with inert absorbent and remove material.

Differences in the action of large and small leaks: Isolate area. Signal the location. Curious away. Eliminate all sources of ignition in the area. Staying downwind. Collect the cast product and damaged containers in suitable packing. Avoid contamination of springs, lakes and rivers.

## 7. HANDLING AND STORAGE

### HANDLING

Avoid contact of the product with skin eyes.

Appropriate technical measures.

Prevention of worker exposure: Don't eat, drink, don't smoke while handling the product. Upon opening the packing do it to avoid leaks.

Protection against fire and explosion: no special recommendation is required.

Precautions and guidelines for safe handling: Avoid contact of the product with skin and eyes. During application, should not remain in place people and animals. Don't apply to food, plants and aquariums. Don't smoke during application.

Stroge: Store in a cool, dry, well- ventilated place.

Appropriate conditions: Store in cool, dry place away from light and well ventilated.

Don't store with food, beverages, including those intended for animal. Lock the place to avoid the access of children and animals.

Conditions to be avoided: damp and heat source locations.



Packaging materials: product already packed in suitable containers.

## 8. EXPOSURE CONTROL- PERSONAL PROTECTION

Parameters specific controls

Occupational Exposure Limits: n.a

Biological Indicators: n.a

Other limits and values: n.a

Engineering control measures: When applicable use exhaust system appropriate

Personal protective equipment:

Respiratory protection: masks combined use of high-efficiency protection against toxic and or highly toxic particulates and odors relief with chemical filter and or mechanical filter, or rubber or silicone mask with filter pesticides, covering nose and mouth.

Skin and body: Use nitrile gloves, PVC or other material waterproof, long sleeve shirt and boots PVC.

Eye/ Face: Safety goggles for chemicals

Special precautions: use clean PPE and adequate conditions of use.

Replace damaged equipment:

General protective and hygiene measures: good ventilation at the workplace. Keep closed containers. Keep the workplace clean. Don't eat, drink or store food workplace. Wash hands with soap and water after handling product, wash contaminated clothing separately, avoiding contact with utensils personal use.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: solid

From: bait

Color: green

Odor: Characteristic



Melting / freezing point: 168.8 ° C

Density: 1,015 g/L (15° C)- the active ingredient

Flash Point: > 190°C- active ingredient

Solubility in water: not soluble

Lower/ upper flammability or explosive limits: the product is not explosive

Viscosity: n.a

## 10. STABILITY AND REACTIVITY

Chemical stability: Product is stable under normal conditions of temperature and is pressure, under conditions of use and storage.

Reactivity: n.a

Hazardous reactions: no dangerous reactions know

Conditions to be avoided: n.a.

## 11. TOXICOLOGICAL INFORMATION

Acute toxicity:

DL50 oral (rats): > 2000 mg/Kg

DL50 dermic (rats): > 2000 mg/Kg

Corrosin/ irritation of the skin: product may cause mild skin irritation.

Corrosin/ irritation of the eyes: Product may cause mild skin irritation

Sensitization: Product not sensitizing to guinea to pigs

Chronic Toxicity

Mutagenicity: Product does not present mutagenic effects.

Carcinogenicity: Product not considered carcinogenic.

Teratogenicity: Product not considered teratogenic.

Reproductive effects: the active ingredient is considered no reproductive effects

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Systemic toxicity to certain target organs - single exposure: nd

Systemic toxicity to target specific organs - repeated exposure: nd

Information in accordance with different exposure inhalation: inhalation of the product can cause coughing, wheezing, increased secretion and dyspnea.

Ingestion: Nausea and vomiting may occur soon after ingestion. Major symptoms are bleeding gums and nose, coughing up blood, blood in the stool or urine, bruises and welts. Massive bleeding may occur, pain shock. As acute abdominal and severe bleeding can lead to death.

Dermal / Eye: Contact with eyes may cause mild irritation and blurred vision. In contact with skin may cause mild irritation.

Contact with skin may cause mild irritation.

## 12. ECOLOGICAL INFORMATION

Ecotoxicological effects: Toxic to fish aquatic organisms and bees. Low toxicity to birds.

Additional ecological information: rapidly degraded by soil microorganisms product.

In case of accident, surround the polluted area and mark with danger sign. A strong smell satys long in any contaminated material, denouncing the product. Having contamination sources, lakes or rives, notify the authorities and residents in the area, so there is no consumption of this water.

## 13.DISPOSAL AND TREATMENT CONSIDERATIONS

Recommended methods for treatment and disposal:

Product: The product should be disposed of in accordance with state law, municipal federal and specific.

Product residues: keeping any leftover product in its packaging original closed adequately. Do not discard the leftover product incorrectly after use. Depending on the amount not used properly store for a new application. Keep any leftovers with expired validity in their properly closed original containers. The deactivation of the product and

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debris product must comply with state and local regulations for disposal of substances toxic.

Used packaging: storage of empty packaging must be made in a covered, ventilated, under rain and waterproof floor plus dikes containment. The final disposal of empty containers can only be held by the registrant or user company or companies lawfully authorized by the competent bodies. Reuse of the user is prohibited empty containers. Recycling can be applied provided they obey the relevant legislation.

## 14. TRANSPORTATION INFORMATION

Product: RIGON IFR

Product features do not correspond to the official parameters that define dangerous goods for transport.

## 15. REGULATORY INFORMATION

International Regulations: n.r.

National Regulations : Law 6.360 de 23/09/76, Decree 79.094 de 05/01/77 and RDC Resolution 34 of 16/08/10. Resolution ANTT 420/04.

## 16. ADDITIONAL INFORMATION

References:

RIGON IFR, ROGAMA

The information contained herein is based on our current knowledge and does not represent a confirmation of characteristics. The consumer of our product is responsible for observing existing laws and regulations.

Abbreviations:

na - not available

n.ap. - Not applicable

n.av. - Not Rated

n. r. - Not