LODIGROUP
HYGIÈNE & BIOSÉCURITÉ

# SAFETY DATA SHEET

(REACH regulation (EC) n° 1907/2006 - n° 2020/878)

## SECTION 1 : IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### 1.1. Product identifier

Product name : RUBIS GRAIN
UFI : 4GUR-D24J-4005-9JAU EAVR-F21H-6003-WY5G

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

Rodenticide -biocidal use
Professional use

### Use descriptor system (REACH) :

Not available.

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

Registered company name : LODI S.A.S.
Address : PA des Quatre Routes.35390.Grand-Fougeray.FRANCE.
Telephone : 02.99.08.48.59. Fax : 02 99 08 38 68.
fds@lodi.fr
https://www.lodi-group.fr/

### 1.4. Emergency telephone number : +33 (0)1 45 42 59 59.

Association/Organisation : INRS / ORFILA http://www.centres-antipoison.net..

### Other emergency numbers

European poison Control Center: 112

## SECTION 2 : HAZARDS IDENTIFICATION

### 2.1. Classification of the substance or mixture

**In compliance with EC regulation No. 1272/2008 and its amendments.**

Reproductive toxicity, Category 1B (Repr. 1B, H360D).
Specific target organ toxicity (repeated exposure), Category 2 (STOT RE 2, H373).
This mixture does not present a physical hazard. Refer to the recommendations regarding the other products present on the site.
This mixture does not present an environmental hazard. No known or foreseeable environmental damage under standard conditions of use.

### 2.2. Label elements

Biocidal mixture (see section 15).

**In compliance with EC regulation No. 1272/2008 and its amendments.**

Hazard pictograms :

GHS08
Signal Word :
DANGER
Product identifiers :
EC 259-978-4 DIFENACOUM (ISO)
Hazard statements :

| | |
|---|---|
| H360D | May damage the unborn child. |
| H373 | May cause damage to organs through prolonged or repeated exposure . |
| Precautionary statements - Prevention : | |
| P201 | Obtain special instructions before use. |
| P202 | Do not handle until all safety precautions have been read and understood. |
| P260 | Do not breathe dust/fume/gas/mist/vapours/spray. |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/ ... |
| Precautionary statements - Response : | |
| P308 + P313 | IF exposed or concerned: Get medical advice/attention. |
| P314 | Get medical advice/attention if you feel unwell. |
| Precautionary statements - Storage : | |
| P405 | Store locked up. |
| Precautionary statements - Disposal : | |
| P501 | Dispose of contents/container according to the regulation. |

### 2.3. Other hazards

The mixture does not contain substances classified as 'Substances of Very High Concern' (SVHC) >= 0.1% published by the European CHemicals Agency (ECHA) under article 57 of REACH: http://echa.europa.eu/fr/candidate-list-table

The mixture fulfils neither the PBT nor the vPvB criteria for mixtures in accordance with annexe XIII of the REACH regulations EC 1907/2006.

The mixture does not contain substances> = 0.1% with endocrine disrupting properties in accordance with the criteria of the Delegated Regulation (EU) 2017/2100 of the Commission or Regulation (EU) 2018/605 of the Commission.

## SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

### 3.2. Mixtures

**Composition :**

| Identification | (EC) 1272/2008 | Note | % |
|---|---|---|---|
| INDEX: 607_157_00_X<br>CAS: 56073-07-5<br>EC: 259-978-4<br><br>DIFENACOUM (ISO) | GHS06, GHS09, GHS08<br>Dgr<br>Acute Tox. 1, H300<br>Acute Tox. 1, H310<br>Acute Tox. 1, H330<br>Repr. 1B, H360D<br>STOT RE 1, H372<br>Aquatic Acute 1, H400<br>M Acute = 10<br>Aquatic Chronic 1, H410<br>M Chronic = 10 | [2] | 0 <= x % < 2.5 |

**Specific concentration limits:**

| Identification | Specific concentration limits | ATE |
|---|---|---|
| INDEX: 607_157_00_X<br>CAS: 56073-07-5<br>EC: 259-978-4<br><br>DIFENACOUM (ISO) | Repr. 1B: H360D C>= 0.003%<br>STOT RE 1: H372 C>= 0.02%<br>STOT RE 2: H373 0.002% <= C < 0.02% | |

**Nanoform**

Not available.

**Information on ingredients :**

(Full text of H-phrases: see section 16)

[2] Carcinogenic, mutagenic or reprotoxic (CMR) substance.

## SECTION 4 : FIRST AID MEASURES

As a general rule, in case of doubt or if symptoms persist, always call a doctor.

NEVER induce swallowing by an unconscious person.

### 4.1. description of first aid measures

**In the event of exposure by inhalation :**

Remove casualty to fresh air and keep warm and at rest. Seek mediacl attention if difficulties appear and persist.

**In the event of splashes or contact with eyes :**

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

**In the event of splashes or contact with skin :**

Watch out for any remaining product between skin and clothing, watches, shoes, etc.

In case of skin exposure, clean skin with water then with soap.

Seek medical attention if ill effect or irritation develops.

**In the event of swallowing :**

In the event of swallowing, if the quantity is small (no more than one mouthful), rinse the mouth with water and consult a doctor.

In case of ingestion, contact the nearest Poison Control Center.

Never give anything by mouth . Do not induce vomiting.

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

This product contains an anticoagulant substance. If ingested, symptoms, which may be delayed, may include nosebleed and bleeding gums. In severe cases, there may be bruising and blood present in the faeces or urine.

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

**Specific and immediate treatment :**

Antidote: Vitamin K1 administered by medical/veterinary personnel only.

**Information for the doctor :**

Antidote: Vitamin K1

## SECTION 5 : FIREFIGHTING MEASURES

Non-flammable.

### 5.1. Extinguishing media

**Suitable methods of extinction**

In the event of a fire, use :

- sprayed water or water mist

**Unsuitable methods of extinction**

In the event of a fire, do not use :

- water jet

### 5.2. Special hazards arising from the substance or mixture

A fire will often produce a thick black smoke. Exposure to decomposition products may be hazardous to health.

Do not breathe in smoke.

In the event of a fire, the following may be formed :

- carbon monoxide (CO)
- carbon dioxide ($CO_2$)

### 5.3. Advice for firefighters

No data available.

## SECTION 6 : ACCIDENTAL RELEASE MEASURES

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

Consult the safety measures listed under headings 7 and 8.

**For first aid worker**

First aid workers will be equipped with suitable personal protective equipment (See section 8).

### 6.2. Environmental precautions

Contain and control the leaks or spills with non-combustible absorbent materials such as sand, earth, vermiculite, diatomaceous earth in drums for waste disposal.

Prevent any material from entering drains or waterways.

Retain contaminated washing water and dispose it. In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

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

Retrieve the product by mechanical means (sweeping/vacuuming).

Rapidly collect the product. To do so, wear a mask and protective clothing

Wash with plenty of water.

### 6.4. Reference to other sections

No data available.

## SECTION 7 : HANDLING AND STORAGE

Requirements relating to storage premises apply to all facilities where the mixture is handled.

Avoid exposure to pregnant women and warn women of child-bearing age of the possible risks

### 7.1. Precautions for safe handling

Always wash hands after handling.

Remove and wash contaminated clothing before re-using.

**Fire prevention :**

Handle in well-ventilated areas.

Prevent access by unauthorised personnel.

**Recommended equipment and procedures :**

For personal protection, see section 8.

Observe precautions stated on label and also industrial safety regulations.

Do not breathe in dust.

Avoid exposure - obtain special instructions before use.

Packages which have been opened must be reclosed carefully and stored in an upright position.

**Prohibited equipment and procedures :**

No smoking, eating or drinking in areas where the mixture is used.

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

No data available.

### Storage

Keep the container tightly closed in a dry, well-ventilated place.
Keep out of reach of children.
Keep away from food and drink and animal feeding stuffs.
Keep away from light
Store in the original container, hermetically sealed.
Keep locked up.

### Packaging

Always keep in packaging made of an identical material to the original.
Recommended types of packaging :
Original packaging.
Suitable packaging materials :
Original packaging.
Unsuitable packaging materials :
Different that the original packaging.

### 7.3. Specific end use(s)

No data available.

## |>SECTION 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control parameters

No data available.

### Predicted no effect concentration (PNEC):

DIFENACOUM (ISO) (CAS: 56073-07-5)

| | |
|---|---|
| Environmental compartment: | Soil. |
| PNEC : | 0.877 mg/kg |
| Environmental compartment: | Fresh water. |
| PNEC : | 0.06 µg/l |
| Environmental compartment: | Fresh water sediment. |
| PNEC : | 2.51 mg/kg |
| Environmental compartment: | Waste water treatment plant. |
| PNEC : | 480 µg/l |

### 8.2. Exposure controls

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

Pictogram(s) indicating the obligation of wearing personal protective equipment (PPE) :

Use personal protective equipment that is clean and has been properly maintained.
Store personal protective equipment in a clean place, away from the work area.
Never eat, drink or smoke during use. Remove and wash contaminated clothing before re-using. Ensure that there is adequate ventilation, especially in confined areas.

### |> - Eye / face protection

Avoid contact with eyes.
Before handling powders or dust emission, wear mask goggles in accordance with standard EN166.

### |> - Hand protection

Use suitable protective gloves that are resistant to chemical agents in accordance with standard EN ISO 374-1.
Wash hands thoroughly after handling.
Wearing gloves is mandatory.

### - Body protection

Work clothing worn by personnel shall be laundered regularly.
After contact with the product, all parts of the body that have been soiled must be washed.
Wear work clothing.

### - Respiratory protection

Avoid inhaling dust.
Type of FFP mask :
Wear a disposable half-mask dust filter in accordance with standard EN149/A1.

## SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

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

**Physical state**

| | |
|---|---|
| Physical state : | Solid in granules. |

Grain.

**Colour**

N/A

**Odour**

| | |
|---|---|
| Odour threshold : | Not stated. |

Cereals.

**Melting point**

| | |
|---|---|
| Melting point/melting range : | Not relevant. |

**Freezing point**

| | |
|---|---|
| Freezing point / Freezing range : | Not stated. |

**Boiling point or initial boiling point and boiling range**

| | |
|---|---|
| Boiling point/boiling range : | Not relevant. |

**Flammability**

| | |
|---|---|
| Flammability (solid, gas) : | Non inflammable. |

**Lower and upper explosion limit**

| | |
|---|---|
| Explosive properties, lower explosivity limit (%) : | Not stated. |
| Explosive properties, upper explosivity limit (%) : | Not stated. |

**Flash point**

| | |
|---|---|
| Flash point interval : | Not relevant. |

**Auto-ignition temperature**

| | |
|---|---|
| Self-ignition temperature : | Not relevant. |

**Decomposition temperature**

| | |
|---|---|
| Decomposition point/decomposition range : | Not relevant. |

**pH**

| | |
|---|---|
| pH (aqueous solution) : | Not stated. |
| pH : | Not relevant. |

**Kinematic viscosity**

| | |
|---|---|
| Viscosity : | Not stated. |

**Solubility**

| | |
|---|---|
| Water solubility : | Insoluble. |
| Fat solubility : | Not stated. |

**Partition coefficient n-octanol/water (log value)**

| | |
|---|---|
| Partition coefficient: n-octanol/water : | Not stated. |

**Vapour pressure**

| | |
|---|---|
| Vapour pressure (50°C) : | Below 110 kPa (1.10 bar). |

**Density and/or relative density**

| | |
|---|---|
| Density : | 0.70 g/ml - 0.76 g/ml |

**Relative vapour density**

| | |
|---|---|
| Vapour density : | Not stated. |

### 9.2. Other information

No data available.

#### 9.2.1. Information with regard to physical hazard classes

No data available.

#### 9.2.2. Other safety characteristics

No data available.

## SECTION 10 : STABILITY AND REACTIVITY

### 10.1. Reactivity

Stable under normal conditions.

### 10.2. Chemical stability

This mixture is stable under the recommended handling and storage conditions in section 7.

### 10.3. Possibility of hazardous reactions

When exposed to high temperatures, the mixture can release hazardous decomposition products, such as carbon monoxide and dioxide, fumes and nitrogen oxide.

### 10.4. Conditions to avoid

Avoid :

- formation of dusts

Dusts can form an explosive mixture with air.

### 10.5. Incompatible materials

None.

### 10.6. Hazardous decomposition products

The thermal decomposition may release/form :

- carbon monoxide (CO)
- carbon dioxide ($CO_2$)

## SECTION 11 : TOXICOLOGICAL INFORMATION

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Exposure to vapours from solvents in the mixture in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on kidney, liver and central nervous system.

Symptoms produced will include headaches, numbness, dizziness, fatigue, muscular asthenia and, in extreme cases, loss of consciousness.

Repeated or prolonged contact with the mixture may cause removal of natural oil from the skin resulting in non-allergic contact dermatitis and absorption through the skin.

Splashes in the eyes may cause irritation and reversible damage

Presumed human reproductive toxicant.

May damage the unborn child.

May cause severe damage to organs in the event of repeated or prolonged exposure.

#### 11.1.1. Substances

**Acute toxicity :**

DIFENACOUM (ISO) (CAS: 56073-07-5)

| | |
|---|---|
| Oral route : | LD50 >= 1.8 mg/kg<br>Species : Rat |
| Dermal route : | LD50 >= 51.54 mg/kg<br>Species : Rat |
| Inhalation route (Gas) : | LC50 >= 0.0036 mg/l<br>Species : Rat |

#### 11.1.2. Mixture

**Acute toxicity :**

Species : Rat
LD50 > 2000 mg/kg
Species : Rat
LD50 > 2000 mg/kg

**Skin corrosion/skin irritation :**

Species : Rabbit
OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

**Respiratory or skin sensitisation :**

Local lymph node stimulation test : Non-sensitiser.
Species : Guinea pig
OECD Guideline 406 (Skin Sensitisation)

### 11.2. Information on other hazards

**Monograph(s) from the IARC (International Agency for Research on Cancer) :**

CAS 111-42-2 : IARC Group 2B : The agent is possibly carcinogenic to humans.

## SECTION 12 : ECOLOGICAL INFORMATION

### 12.1. Toxicity

#### 12.1.1. Substances

DIFENACOUM (ISO) (CAS: 56073-07-5)

| | |
|---|---|
| Fish toxicity : | LC50 = 0.064 mg/l |

| | |
|---|---|
| | Factor M = 10<br>Species : Oncorhynchus mykiss<br>Duration of exposure : 96 h |
| Crustacean toxicity : | EC50 = 0.52 mg/l<br>Factor M = 1<br>Species : Daphnia magna<br>Duration of exposure : 48 h |
| Algae toxicity : | ECr50 = 0.8 mg/l<br>Factor M = 1<br>Duration of exposure : 72 h |

### 12.1.2. Mixtures

No aquatic toxicity data available for the mixture.

### 12.2. Persistence and degradability

### 12.2.1. Substances

DIFENACOUM (ISO) (CAS: 56073-07-5)

| | |
|---|---|
| Biodegradability : | no degradability data is available, the substance is considered as not degrading quickly. |

### 12.3. Bioaccumulative potential

No data available.

### 12.4. Mobility in soil

No data available.

### 12.5. Results of PBT and vPvB assessment

No data available.

### 12.6. Endocrine disrupting properties

No data available.

### 12.7. Other adverse effects

No data available.

## |>SECTION 13 : DISPOSAL CONSIDERATIONS

Proper waste management of the mixture and/or its container must be determined in accordance with Directive 2008/98/EC.

### 13.1. Waste treatment methods

Do not pour into drains or waterways.

**|> Waste :**

Waste management is carried out without endangering human health, without harming the environment and, in particular without risk to water, air, soil, plants or animals.

Recycle or dispose of waste in compliance with current legislation, preferably via a certified collector or company.

Do not contaminate the ground or water with waste, do not dispose of waste into the environment.

Recycle or dispose of waste in compliance with current legislation, via a certified collector or company.

**Soiled packaging :**

Empty container completely. Keep label(s) on container.

Give to a certified disposal contractor.

## SECTION 14 : TRANSPORT INFORMATION

Not classified as dangerous in the meaning of transport regulations.

### 14.1. UN number or ID number

-

### 14.2. UN proper shipping name

-

### 14.3. Transport hazard class(es)

-

### 14.4. Packing group

-

### 14.5. Environmental hazards

-

### 14.6. Special precautions for user

-

### 14.7. Maritime transport in bulk according to IMO instruments

-

## SECTION 15: Regulatory information

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

**- Classification and labelling information included in section 2:**

The following regulations have been used:

- EU Regulation No. 1272/2008 amended by EU Regulation No. 2022/692 (ATP 18)

**- Container information:**

No data available.

**-Restrictions applied under Title VIII of Regulation (EC) No. 1907/2006 (REACH):**

The mixture contains at least one restricted substance under Annex XVII of Regulation (EC) No. 1907/2006 (REACH): https://echa.europa.eu/substances-restricted-under-reach. Please refer to Section 3 to identify the substance involved.

For professional users only.

**- Particular provisions :**

No data available.

**- Labelling for biocidal products (Regulation (UE) n° 528/2012) :**

| Name | CAS | % | Product-type |
|---|---|---|---|
| DIFENACOUM (ISO) | 56073-07-5 | 0.05 g/kg | 14 |

Product-type 14 : Rodenticides.

### 15.2. Chemical safety assessment

No data available.

## SECTION 16 : OTHER INFORMATION

Since the user's working conditions are not known by us, the information supplied on this safety data sheet is based on our current level of knowledge and on national and community regulations.

The mixture must not be used for other uses than those specified in section 1 without having first obtained written handling instructions.

It is at all times the responsibility of the user to take all necessary measures to comply with legal requirements and local regulations.

The information in this safety data sheet must be regarded as a description of the safety requirements relating to the mixture and not as a guarantee of the properties thereof.

**Wording of the phrases mentioned in section 3 :**

| | |
|---|---|
| H300 | Fatal if swallowed. |
| H310 | Fatal in contact with skin. |
| H330 | Fatal if inhaled. |
| H360D | May damage the unborn child. |
| H372 | Causes damage to organs through prolonged or repeated exposure . |
| H400 | Very toxic to aquatic life. |
| H410 | Very toxic to aquatic life with long lasting effects. |

**Abbreviations :**

LD50 : The dose of a test substance resulting in 50% lethality in a given time period.
LC50 : The concentration of a test substance resulting in 50% lethality in a given period.
EC50 : The effective concentration of substance that causes 50% of the maximum response.
ECr50 : The effective concentration of substance that causes 50% reduction in growth rate.
REACH : Registration, Evaluation, Authorization and Restriction of Chemical Substances.
PNEC : Predicted No-Effect Concentration
CMR: Carcinogenic, mutagenic or reprotoxic.
UFI : Unique formulation identifier.
STEL : Short-term exposure limit
TWA : Time Weighted Averages
TMP : French Occupational Illness table
TLV : Threshold Limit Value (exposure)
AEV : Average Exposure Value.
ADR : European agreement concerning the international carriage of dangerous goods by Road.
IMDG : International Maritime Dangerous Goods.
IATA : International Air Transport Association.
ICAO : International Civil Aviation Organisation
RID : Regulations concerning the International carriage of Dangerous goods by rail.
WGK : Wassergefahrdungsklasse (Water Hazard Class).
GHS08 : Health hazard
PBT: Persistent, bioaccumulable and toxic.
vPvB : Very persistent, very bioaccumulable.

SVHC : Substances of very high concern.
|> Modification compared to the previous version