

MATERIAL SAFETY DATA SHEET

according to Regulation (EC) no. 1907/2006 (amended by EC Reg. No. 830/2015)

 Issued:
 20.10.2017
 Valid from:
 20.10.2017
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 Version:
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1.	PRODUCT NAME AND COMPANY		
1.1	Product identifier:		
1.1.1	Trade name:		
	Ratron® Wheat Bait 29 ppm		
1.1.2	Article number:		
	2401-207 / -256		
<i>1.1.3</i>	Use:		
	Rodenticide bait for the control of rats and house mice (detailed statements see section 7.3 and product		
1.2	information).		
1.2	Producer / Supplier:		
	frunol delicia [®] GmbH		
1.2.1	Address:	B 1 (f)	
	Main office:	Branch office:	
	Duebener Strasse 145	Hansastrasse 74 b	
	04509 Delitzsch	59425 Unna	
	Germany	Germany	
	Tel.: +49 (0)34202 / 65300	Tel.: +49 (0)2303 / 253600	
	Fax: +49 (0)34202 / 65309	Fax: +49 (0)2303 / 2536050	
1.2.2	E-mail:		
	info@frunol-delicia.de		
1.2.3	Informing department:		
	Lab department, Tel.: +49 (0)34202 / 65341		
1.3	Emergency contact:		
	Dr. H. Knipp		
	Tel.: +49 (0)3 42 02 / 6 53 00 Fax: +49	(0)3 42 02 / 6 53 09	

<i>2.</i>	HAZARDS IDENTIFICATION
2.1	Classification of the substance or mixture:
	Classification acc. to the regulation (EC) no. 1272/2008 (CLP):
	Danger categories: STOT RE 2 (blood)
	Hazard statemens*: H373
2.2	Label elements:
	Signal word: Warning
	Hazard pictograms: GHS08
	Hazardous components which must be listed on the label:
	Brodifacoum
	Hazard statements*: H373
	Precautionary statements*: P101, P102, P103, P270, P280, P301/310, P405
	Other statements:
	EUH401 – To avoid risks to human health and the environment, comply with the instructions for use
2.3	Other hazards:
	-
	* wording see section 16.



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<i>3.</i>	COMPOSITION / INFORMATION ON INGREDIENTS		
3.1	Substances:		
	This product is a mixture.		
3.2	Ingredients:		
3.2.1	Substance denomination:	Brodifacoum	
3.2.1.1	EC-Nr.:	259-980-5	
3.2.1.2	CAS-Nr.:	56073-10-0	
<i>3.2.1.3</i>	Proportion:	0,0029 % w/w	
3.2.1.4	Class. acc. to reg. (EC) no. 1272/2008:	H300, H310, H330, H360D, H372, H400, H410	
3.2.1.5	Signal word:	Danger	
3.2.1.6	Danger denominations:	Acute Tox. 1, Repr. 1A, STOT RE 1, Aquatic Acute 1, Aquatic Chronic 1 (M =10)	
3.2.7	Substances with mandatory EC thresholds (WEL):		
	Propane-1,2-diol (1 – 5%), see also see	ction 8.2.	
	(The wording of the mentioned dans	ger advices is to be read in section 16)	

4.	FIRST AID MEASURES
4.1	General advices:
	Remove to fresh air. Remove contaminated clothes.
4.2	After inhalation:
	Remove to fresh air, keep respiratory tract free.
4.3	After skin contact:
	After contact with skin, wash immediately with plenty of water and soap.
4.4	After eye contact:
	In case of contact with the eyes, rinse immediately with plenty of water and seek medical advice.
4.5	After swallowing:
	If swallowed, seek medical advice immediately and show container or label.
4.6	Antidote:
	Vitamin K_1 , to be applied by medical/veterinary personal only.
4.7	Advices for the physician:
	Treatment according to Coumarin poisonings.



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<i>5.</i>	FIRE FIGHTING MEASURES
5.1	Extinguishing media:
5.1.1	Suited:
	Powder, foam, CO ₂ , water
<i>5.1.2</i>	Not suited:
	-
5.2	Special dangers by the agent, its combustion residues or formed gases:
	-
<i>5.3</i>	Advices for fire-fighting:
	Stay in the danger zone with self-contained breathing apparatus only, in emergency cases wear
	respiratory mask with filter AB-P. Cool endangered containers from safe distance and condense
	exhausting vapours with water. Avoid intrusion of fire water into surface- and ground waters and soil.

6.	ACCIDENTAL RELEASE MEASURES
6.1	Personal protective measures:
	Wear protective gloves.
6.2	Environmental protective measures:
	Do not let get into waters or canalisation.
6.3	Methods of absorption:
	Sweep up and collect in suited bins (special waste).
6.4	Additional advices:
	Pay attention to the protective measures in sections 7 and 8.

7.	HANDLING AND STORAGE		
7.1	Handling:		
7.1.1	Secure handling:		
	To avoid risks for human and environment follow the instructions for use. Avoid all unnecessary contact with the agent. Misuse may lead to damages to health. Keep away domestic animals. Technical and organisatoric protective measures must be used preferred (personal protective equipment may not be a permanent measure).		
7.1.2	Advices for fire and explosion safety:		
	-		
7.2	Storage:		
7.2.1	Storage temperature:		
	-		
7.2.2	Storage restrictions:		
	Take care for dry and well ventilated rooms. Store cool, dry and in the closed original container. Keep locked up.		
7.2.3	Storage advices with other products:		
	Keep away from acids or acidic products. Keep away from food, drink and animal feeding stuffs.		
7.2.4	Additional advices:		
	Keep out of reach of children. Storage class see section 15.		
7.3	Specific end uses:		
	For the control of rats and house mice in buildings, stables and outdoor (surrounding of buildings) at need		
	by professional users. Do not apply on agricultural land or in forestry. Usage against brown rat in		
	canalisation see product information (usage here by examined pest controllers only). Apply covered due to		
	poisoning danger of children and pets, bait boxes (mice) or bait stations (rats) are recommended). Avoid		
	avulsion into canalisation or waters. To protect humans and environment collect product residues and		
	animal carcasses and dispose of properly.		



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8.	EXPOSURE CONTROLS AND PERSONAL PROTECTION	
8.1	Additional advices for technical plants:	
8.2	Limited value of plant:	
	Propane-1,2-diol (CAS 57-55-6), DNEL (inhalative) 10 mg/m ³	
8.3	Personal protective equipment:	
8.3.1	General hygienic and protection measures:	
	Avoid contact with skin (see also section 8.3.3), pay attention to new PSA directive (risk category II).	
8.3.2	Breath:	
	-	
8.3.3	Hand:	
	Wear suited protective gloves at handling. At usage wear protective gloves CE cat. II or III (nitrile, nitrile coating or vinyl, layer thickness min. 0.4 mm, maximal wearing period 480 min.) Chemical protective gloves may be worn longer than 4 hours only exceptional. Regularly wearing of protective gloves longer than 2 hours already oblige the employer to offer employment medical examinations. E.g.: Protective glove "Camatril Velours 730" from company KCL. At reuse clean protective gloves with water and soap, dispose contaminated protective gloves as well as used washing liquid as special waste. At disposal of carcasses wear protective gloves as rodents may transfer diseases (e.g. leptospirosis).	
8.3.4	Eye:	
	-	
8.3.5	Body:	
	-	
8.4	Limitation of environmental exposition:	
	See sections 6 and 7.	

9.	PHYSICAL AND CHEMICAL PROP	ERTIES		
9.1	General statements			
9.1.1	Form:	Granule		
9.1.2	Dye:	Red		
9.1.3	Odor:	Nearly odourless		
9.2	Safety related statements			Method / remarks
9.2.1	Melting point / range:		°C	
9.2.2	Boiling point / range:		°C	
9.2.3	Flash point:		°C	
9.2.4	Ignition point:		°C	
9.2.5	Explosion limit, lower:		Vol%	
9.2.6	Explosion limit, upper:		Vol%	
9.2.7	Vapour pressure (20°C):		hPa	
9.2.8	Vapour pressure: (25°C):		hPa	
9.2.9	Density (20°C):		g/ml	
9.2.10	Bulk density (20°C):	1.19	kg/l	(CIPAC MT 186)
9.2.11	Solubility in water (20°C):	Insoluble	g/l	
9.2.12	Solubility in organic solvents (20°C):		g/l	
9.2.13	pH-value in original (°C):			
9.2.14	pH-value in 10 g/l of water (20°C):	6.61		(CIPAC MT 75.3)
9.2.15	Partition coefficiency (log Po/w):			
9.2.16	Viscosity (20°C):		mm ² /sec	
9.2.17	Content of solvents:		% w/w	
9.2.18	Additional information:			



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<i>10.</i>	STABILITY AND REACTIVITY:
10.1	Reacticity:
	-
10.2	Chemical stability:
	2 years from production date.
10.3	Possible dangerous reactions:
	-
10.4	Conditions to avoid:
10.5	Incompatible materials:
10.6	- Hazardous decomposition products:
	-

11.	TOXICOLOGICAL INFORMATION
11.1	Acute toxicity:
	LD ₅₀ (rat, oral) > 2,000 mg/kg body weight – calculated
11.2	Sub acute toxicity:
	• ·
11.3	Primary irritation:
11.3.1	Skin:
	None
11.3.2	Eye:
	None
11.4	Sensitization:
	Criteria for classification are not fulfilled.
<i>11.5</i>	Chronical effects:
	No evidences of carcinogenic, mutagenic, teratogenic or other harmful effects at long-term exposition.
11.6	Additional advices:
	May harm blood at longer exposition.

<i>12.</i>	ECOLOGICAL INFORMATION
12.1	Ecotox effects:
12.1.1	Aquatic toxicity:
	Toxic to fish and fish nutrition animals
12.1.2	Toxicity to bees:
	Not toxic to bees
12.2	Elimination (persistence and degradation):
	-
12.3	Hazard to waters:
	WHC 1 (own classification)
12.4	Additional advices:
	Do not let get the agent and its residues as well as emptied bins and containers into waters.



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<i>13.</i>	DISPOSAL CONSIDERATIONS
13.1	Procedures of waste treatment:
13.1.1	Product:
	Special waste, pay attention to the national and regional regulations.
13.1.2	Uncleaned packages:
	Special waste, pay attention to the national and regional regulations.

14.	TRANSPORT INFORMATION		
	Land transport (ADR/RID)	Sea transport (IMDG)	Air transport (IATA, ICAO)
	Non dangerous good	Non dangerous good	Non dangerous good

<i>15.</i>	REGULATORY INFORMATION		
15.1	EU regulation (EC) no. 1272/2008 (CLP):		
<i>15.1.1</i>	Danger categories:		
	STOT RE 2 (blood)		
15.1.2	H-statements:		
	H373 (wording see section 16).		
<i>15.1.3</i>	P-statements:		
	P101, P102, P103, P270, P280, P301/310, P405 (wording see section 16)		
15.1.4	Additional information:		
	EUH401 (wording see section 16)		
<i>15.2</i>	National regulations (Germany):		
15.2.1	TRGS:		
	See 15.2.6		
15.2.2	Water hazard class:		
	1 (own classification)		
15.2.3	VCI-Storage class:		
	11		
15.2.4	Health & Safety at Work regulations:		
	Pay attention to PSA directive (see also section 8.3.1)		
15.2.5	VOC-content:		
	-		
15.2.6	Further advices:		
	The rules of TRGS 401 and TRGS 523 are to be followed; the directive 2000/54/EC as well as the TRBA 230 and TRBA 500 and the leaflet of vocational disease no. 3102 are to be considered.		
15.3	Occupation limitation:		
15.3.1	Youth protection:		
	Pay attention to the occupation limitations for adolescents (§ 22 JArbSchG).		
15.3.2	Maternity protection:		
	Maternity protection law, pay attention to the occupation limitations (§§ 3,4 MuSchG).		



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16. **OTHER INFORMATION**

WORDING DANGER REFERENCES AND SAFETY ADVICES:

2. POTENTIAL DANGERS AND 15.1 LABELING BY EU-REGULATIONS

May cause damages to organs through prolonged or repeated exposure

EUH401 To avoid risks to human health and the environment, comply with the instructions for use

3. COMPOSITION / MARKS ABOUT THE INGREDIENTS

Dangerous ingred.: Brodifacoum H300 Fatal if swallowed H310 Fatal in contact with skin H330 Fatal if inhaled

H360D May damage the unborn child

H372 Causes damages to organs through prolonged or repeated exposure

H400 Very toxic to aquatic life

H410 Very toxic to aquatic life with long lasting effects

2. AND 15.1 LABELING BY EC REGULATION NO. 1272/2008

P101 If medical advice is needed, have product container or label at hand

P102 Keep out of reach of children P103 Read label before use

Do no eat, drink or smoke when using this product P270

P280 Wear protective gloves/protective clothing/eye protection/face protection P301/310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician

P405 Store locked up



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16. OTHER INFORMATION (CONTINUATION)

Specific product advices:

Handling / Application of the product in accordance with the instructions for use of the manufacturer only. Misuse may lead to damages to health. The product does not contain any SVHC substances of the REACH regulation (EC) no. 1907/2006.

Product type: PT 14 (rodenticides) Biocidal reg.-no.: DE-0018327-14

Generic Exposure Scenarios (GES)

End uses

a) Hygiene areas – professional (SU 22)

Product category: PC 8 (Biocides - rodenticides)

Environmental Release Categories (ERC):

Wide disperse indoor use of long-life articles and materials with low release (ERC 10a). Release by discharge in buildings and surrounding of buildings.

Sources for preparation of this Material Safety Data Sheet:

REACH-regulation 1907/2006 Article 31, regulation (EC) no. 1272/2008 (CLP regulation), Regulation (EC) no. 830/2015, MSDS of the components.

These information are based on actual state of our knowledge, they are not a guarantee of our product qualities and involve no contractual relationship.