

MATERIAL SAFETY DATA SHEET

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

Issued: 25.05.2011 Valid from: 25.05.2011 Revised: 08/2018

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Ratron® Vole Sticks

1.	PRODUCT NAME AND COMPANY		
1.1	Product identifier:		
1.1.1	Trade name:		
	Ratron® Vole Sticks		
1.1.2	Article number:		
	0684-097		
1.1.3	Use:		
	Block bait for the control of voles (detailed stat	ements see point 7.3 and product information)	
1.2	Producer / Supplier:		
	frunol delicia® GmbH		
1.2.1	Address:		
	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	(0)2 42 02 4 5 72 02	
	Tel.: +49 (0)3 42 02 / 6 53 00 Fax: +49	(0)3 42 02 / 6 53 09	

2.	HAZARDS IDENTIFICATION
2.1	Classification of the substance or mixture:
	Classification acc. to the regulation (EC) no. 1272/2008 (CLP):
	Danger categories:
	Hazardous to the aquatic environment – Acute, category 1
	Hazardous to the aquatic environment – Chronic, category 1
	Hazard statements*: EUH032, H410
2.2	Label elements:
	Signal word: Warning
	Hazard pictograms: GHS09
	¥2
	Hazardous components which must be listed on the label:
	Zinc phosphide
	Hazard statements:
	EUH032 – In contact with acids releases very toxic gases
	H410 – Very toxic to aquatic life with long lasting effects
	EUH401 – To avoid risks for human and environment the instructions for use are to be followed
	Precautionary statements*: P102, P273, P391, P501
2.3	Other hazards:
	-
	* wording see section 16.



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3.	COMPOSITION / INFORMATION	ON ON INGREDIENTS
3.1	Substances:	
	This product is a mixture.	
3.2	Ingredients:	
3.2.1	Substance denomination:	Zinc phosphide (Trizincdiphosphide)
3.2.1.1	Index-No.:	015-006-00-9
3.2.1.2	EC-No.:	215-244-5
3.2.1.3	CAS-Nr.:	1314-84-7
3.2.1.4	Proportion:	0.8 % w/w
3.2.1.5	Class. acc. to reg. (EC) no. 1272/2008:	H300 cat. 2, H311 cat. 3, H400 cat. 1, H410 cat. 1, EUH032
3.2.1.6	M-Factor:	M=100
3.2.1.7	Signal word:	Danger
	Remark:	Classification H260 cat. 1 is not required due to test results (see Annex VI CLP-directive footnote T).
3.2.2	Substances with mandatory EC thre	sholds (WEL):
	(The wording of the mentioned dan	ger advices is to be read in section 16)



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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:
	No specific antidote.
4.7	Advices for the physician:
	Treatment according to Zinc phosphide poisonings.

<i>5.</i>	FIRE FIGHTING MEASURES
5.1	Extinguishing media:
5.1.1	Suited:
	Powder, foam
5.1.2	Not suited:
	Water, CO ₂
<i>5.2</i>	Special dangers by the agent, its combustion residues or formed gases:
	Phosphorus oxides
5.3	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.

6.	ACCIDENTAL RELEASE MEASURES	
6.1	Personal protective measures:	
	Take care for ventilation, wear protective gloves (chemical resistant, if possible).	
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.	



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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.
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.
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 voles in pomiculture, vegetable gardening and ornamental plants (incl. house- and garden sector), in agriculture, on meadows, pastures and in forestry. 1 block per course or bait location (bait station), at need and covered. Max. amount of treatments: 1 x per crop and year (for all mentioned areas). No waiting period in days. Safety distance to permanently or periodically water-bearing surface waters 10 m at minimum. See also GES (section 16).

8.	EXPOSURE CONTROLS AND PERSONAL PROTECTION
8.1	Additional advices for technical plants:
8.2	Limited value of plant:
	PH ₃ , max. place of work concentration 0.1 ppm (Germany)
<i>8.3</i>	Personal protective equipment:
8.3.1	General hygienic and protection measures:
	Avoid contact with skin.
8.3.2	Breath:
	At proper use not breath protection necessary.
8.3.3	Hand:
	Protective gloves CE cat. II or III (nitrile, nitrile coating or vinyl)
8.3.4	Eye:
8.3.5	Body:
8.4	Limitation of environmental exposition:
	See sections 6 and 7.



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9.	PHYSICAL AND CHEMICAL PROP	PERTIES		
9.1	General statements			
9.1.1	Form:	Block (10g)		
9.1.2	Dye:	Dark grey		
9.1.3	Odor:	Indifferent		
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):	1.07	g/ml	
9.2.10	Bulk density (20°C):		kg/l	
9.2.11	Solubility in water (20°C):	Nearly 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):			
9.2.15	Partition coefficiency (log Po/w):			
9.2.16	Viscosity (20°C):		mm²/sec	
9.2.17	Content of solvents:		% w/w	
9.2.18	Additional information:			

10.	STABILITY AND REACTIVITY:
10.1	Reacticity:
	-
10.2	Chemical stability:
	-
10.3	Possible dangerous reactions:
	At contact with acids phosphorus hydride (PH3) may be formed
10.4	Conditions to avoid:
	Acidic air
10.5	Incompatible materials:
	Acids
10.6	Hazardous decomposition products:
	Phosphorus hydrogen



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11.	TOXICOLOGICAL INFORMATION
11.1	Acute toxicity:
	LD ₅₀ (rat, oral) > 2,000 mg/kg body weight (OECD Limit Test)
11.2	Sub acute toxicity:
	-
11.3	Primary irritation:
11.3.1	Skin:
	None
11.3.2	Eye:
	None
11.4	Sensitization:
	Not known
11.5	Chronical effects:
	No evidences of carcinogenic, mutagenic, teratogenic or other harmful effects at long-term exposition.
11.6	Additional advices:
	At contact with acids formation of PH ₃ (danger).

12.	ECOLOGICAL INFORMATION
12.1	Ecotox effects:
12.1.1	Aquatic toxicity:
	Toxicity to aquatic organisms very low ($EC_{50} > 100 \text{ mg/L}$) because of the low active ingredient content and the encapsulated formulation. No release of phosphorus hydride by water.
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). Due to the danger of avulsion a safety distance of 10 m at minimum must be kept between the treated area and surface waters – except only occasionally water-bearing, but inclusive periodically water-bearing waters.
12.4	Additional advices:
	Do not let get the agent and its residues as well as emptied bins and containers into waters. The agent is very toxic to birds and game, therefore always place the bait deep and inaccessible into the rodent courses.

13.	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.



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14. TRANSPORT	T INFORMATION		
	Land transport (ADR/RID)	Sea transport (IMDG)	Air transport (IATA, ICAO)
UN / ID-No.:	No dangerous good	No dangerous good	No dangerous good
Class:			
Classification code:			
Package group:			
Danger-No.:			
Environ. Hazard:			
Label:			
EMS:			
MFAG:			
Marine pollutant:			
LQ-regulation:			
Tremcard (CEFIC):			
Limited value:			
Transportation cat. /			
TRC:			
Technical name:			

<i>15.</i>	REGULATORY INFORMATION	
15.1	EU regulation (EC) no. 1272/2008:	
<i>15.1.1</i>	Danger designation:	
	Environmentally hazardous	
15.1.2	H-statements:	
	EUH032, H410 (wording see section 16)	
15.1.3	P-statements:	
	P102, P273, P391, P501 (wording see section 16)	
15.1.4	Additional information:	
	-	
<i>15.2</i>	National regulations (Germany):	
15.2.1	TRGS:	
	-	
15.2.2	Water hazard class:	
	2 (own classification)	
15.2.3	VCI-Storage class:	
	11	
15.2.4	Health & Safety at Work regulations:	
	-	
15.2.5	VOC-content:	



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16. **OTHER INFORMATION**

WORDING DANGER REFERENCES AND SAFETY ADVICES:

3. COMPOSITION / MARKS ABOUT THE INGREDIENTS

Dangerous ingred.: Zinc phosphide H300 Fatal if swallowed H311 Toxic in contact with skin H400 Very toxic to aquatic life

Very toxic to aquatic life with long lasting effects H410 EUH032 In contact with acids releases very toxic gases

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

Wording H-statements:

EUH032 In contact with acids releases very toxic gases H410 Very toxic to aquatic life with long lasting effects

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

Wording P-statements:

Keep out of reach of children P273 Wear protective gloves P391 Collect spillage

P501 Dispose of contents/container to special waste treatment plants



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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.

BVL reg.-no.: 5389-00

Generic Exposure Scenarios (GES)

End uses

a) Agrochemical uses – consumer (SU21)

b) Agrochemical uses – professional (SU 22)

Product category: PC27 (plant protection product)

Environmental Release Categories (ERC):

Wide disperse outdoor use of long-life articles and materials with low release (ERC 10a). Outdoor release by protective discharge of rodenticides in agricultural and garden areas.

Sales advices:

Pay attention to the plant protection directive at sale of the product.

Sources for preparation of this Material Safety Data Sheet:

Directives 67/548/EEC, 91/414/EEC, 1999/45/EC, REACH-regulation 1907/2006 Article 31, regulation (EC) no. 1272/2008 (CLP regulation), Regulation (EC) no. 453/2010, BekGS220, MSDS of the components, approval notification of BVL, literature and studies regarding toxicity.

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