

Trade name: Cartridges green MAXXTech (cartridges) 9x17 mm, 50 pcs

Version: 3 / RO

Date revised: 29.07.2025

Substance number:: 21205

Replaces Version: 2 / RO

Print date: 24.09.2025

## **SECTION 1: Identification of the substance/mixture and of the company/undertaking**

### **1.1. Product identifier**

Cartridges green MAXXTech (cartridges) 9x17 mm, 50 pcs

#### **Substance / product identification**

PR-No. 21205, 21206, 21208

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

#### **Use of the substance/preparation**

cattle stunning ammunition

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

#### **Address/Manufacturer**

Albert Kerbl GmbH

Felizenzell 9

84428 Buchbach

Telephone no. +49 8086 933-100

Fax no. +49 8086 933-500

Information provided by / telephone Albert Kerbl GmbH Tel.: 0049-(0)8086-933-302

E-mail address of person responsible sdb-team@kerbl.com

for this SDS

### **1.4. Emergency telephone number**

Joint poison information center for the states of Mecklenburg-Western Pomerania, Saxony, Saxony-Anhalt and Thuringia c/o HELIOS Klinikum Erfurt Nordhäuser Strasse 74

Tel.: (03 61) 73 07 30 - Fax: (03 61) 7 30 73 17

E-Mail: ggiz@ggiz-erfurt.de - Internet: www.ggiz-erfurt.de

## **SECTION 2: Hazards identification**

### **2.1. Classification of the substance or mixture**

#### **Classification (Regulation (EC) No. 1272/2008)**

Classification (Regulation (EC) No. 1272/2008)

Expl. 1.4 H204

Voluntary product information following the Safety Data Sheet format

According to Article 3 of Regulation No 1907/2006 of the European Parliament and of the Council (REACH), cartridges are considered to be an article consisting of three basic components:

Cartridge case, propellant charge (powder) and primer.

An inseparable part of the cartridge are dangerous mixtures inside (mixture in the primer and other mixture in the cartridge - propellant charge).

### **2.2. Label elements**

#### **Labelling according to regulation (EC) No 1272/2008**

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### Hazard pictograms



### Signal word

Warning

### Hazard statements

H204 Fire or projection hazard.

### Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P234 Keep only in original packaging.

P240 Ground and bond container and receiving equipment.

P250.9 Do not subject to grinding/shock/friction.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P370+P372+P380+P373 In case of fire: Explosion risk. Evacuate area. DO NOT fight fire when fire reaches explosives.

P501 Dispose of contents/container to a hazardous or special waste collection point (problem waste collection point), in accordance with local, regional, national and/or international regulations.

### 2.3. Other hazards

Extreme risk of explosion by shock, friction, fire or other sources of ignition. /. The cartridge contains the potentially hazardous components (primer and propellant powder), which are hermetically sealed from the environment so that they can only be released by destroying the product. Cartridge is covered on the top by green, yellow or red marking compound. /. Heat or impact against the primer and strong mechanical stress that lead to damage to the cartridge case or mechanical attempts to remove the primer cap can lead to immediate ignition.

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

#### Chemical characterization

The cartridge consists of a copper alloy cartridge case and a small primer, Double bottom propellant charge with smokeless powder and marking agent.

Net mass of explosive substances per cartridge:

Green: max. 375 mg

Yellow: max. 400 mg

Red: max. 490 mg

Total mass per cartridge:

approx. 2,92 g

#### Hazardous ingredients

##### CASE (content per cartridge)

##### Copper

CAS No. 7440-50-8

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EINECS no. 231-159-6  
 Concentration >= 53,02 <= 54,8 %  
 Classification (Regulation (EC) No. 1272/2008)  
 Acute Tox. 4 H302  
 Aquatic Acute 1 H400  
 Aquatic Chronic 1 H410

**zinc**

CAS No. 7440-66-6  
 EINECS no. 231-175-3  
 Concentration >= 19,92 <= 21,7 %  
 Classification (Regulation (EC) No. 1272/2008)  
 Aquatic Acute 1 H400  
 Aquatic Chronic 1 H410

**PRIMER**

**Barium nitrate**

CAS No. 10022-31-8  
 EINECS no. 233-020-5  
 Concentration appr. 31,5 %  
 Classification (Regulation (EC) No. 1272/2008)  
 Acute Tox. 4 H302  
 Acute Tox. 4 H332

Additional remarks:

CLP Regulation (EC) No 1272/2008, Annex VI, Note 1, A

**Antimony trisulphide**

CAS No. 1345-04-6  
 EINECS no. 215-713-4  
 Concentration appr. 11 %  
 Classification (Regulation (EC) No. 1272/2008)  
 Carc. 2 H351  
 Aquatic Chronic 3 H412

**LEAD dioxide**

CAS No. 1309-60-0  
 EINECS no. 215-174-5  
 Concentration appr. 7 %  
 Classification (Regulation (EC) No. 1272/2008)  
 Aquatic Chronic 1 H410  
 Acute Tox. 4 H302  
 Acute Tox. 4 H332  
 Aquatic Acute 1 H400  
 Repr. 1A H360Df  
 STOT RE 2 H373

**Tetracene**

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CAS No. 109-27-3  
EINECS no. 203-659-4  
Concentration appr. 5,5 %  
Classification (Regulation (EC) No. 1272/2008)  
Unst. Expl. H200

**lead styphnate**

CAS No. 15245-44-0  
EINECS no. 239-290-0  
Concentration appr. 41 %  
Classification (Regulation (EC) No. 1272/2008)  
Unst. Expl. H200  
Acute Tox. 4 H302  
Acute Tox. 4 H332  
Repr. 1A H360Df  
STOT RE 2 H373  
Aquatic Acute 1 H400  
Aquatic Chronic 1 H410

Additional remarks:

CLP Regulation (EC) No 1272/2008, Annex VI, Note 1

**P.E.T.N.**

CAS No. 78-11-5  
EINECS no. 201-084-3  
Concentration appr. 4 %  
Classification (Regulation (EC) No. 1272/2008)  
Unst. Expl. H200

**PROPELLANT**

**Nitrocellulose**

EINECS no. 936-908-7  
Concentration >= 60 %  
Classification (Regulation (EC) No. 1272/2008)  
Expl. 1.1 H201

**nitroglycerine**

CAS No. 55-63-0  
EINECS no. 200-240-8  
Concentration <= 35 %  
Classification (Regulation (EC) No. 1272/2008)  
Acute Tox. 1 H310  
Acute Tox. 2 H300  
Acute Tox. 2 H330  
STOT RE 2 H373  
Aquatic Chronic 2 H411  
Expl. 1.1 H201  
Unst. Expl. H200

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**Centralite I**

CAS No.	85-98-3			
EINECS no.	201-645-2			
Concentration	>= 0	<= 7		%
Classification (Regulation (EC) No. 1272/2008)				
	Acute Tox. 4		H302	
	Aquatic Chronic 3		H412	

**diphenylamine**

CAS No.	122-39-4			
EINECS no.	204-539-4			
Concentration	<= 1,65			%
Classification (Regulation (EC) No. 1272/2008)				
	Acute Tox. 3		H301	
	Acute Tox. 3		H311	
	Acute Tox. 3		H331	
	STOT RE 2		H373	
	Aquatic Acute 1		H400	
	Aquatic Chronic 1		H410	

**Other information**

Nonhazardous additives <= 4% --- The product is an article within the meaning of Article 3 No. 3 of the REACH Regulation and thus not to be labelled according to the CLP regulation. The compilation of the Safety Data sheet is not required according to Article 31 REACH Regulation for articles and is done on a voluntary basis. --- General: Trajectory and flight direction of cartridges ignited outside weapons are not known.

**SECTION 4: First aid measures****4.1. Description of first aid measures****General information**

In case of persistent symptoms consult doctor.

**After inhalation**

Ensure supply of fresh air. In the event of symptoms take medical treatment.

**After skin contact**

Wash skin with plenty of soap and water.

**After eye contact**

Separate eyelids, wash the eyes thoroughly with water (15 min.). In case of irritation consult an oculist.

**After ingestion**

Rinse out mouth and give plenty of water to drink. Never give anything by mouth to an unconscious person. Do not induce vomiting - aspiration hazard. Take medical treatment.

**Adhere to personal protective measures when giving first aid**

First aider: Pay attention to self-protection!

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

Until now no symptoms known so far.

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

**Hints for the physician / hazards**

No further relevant information available.

**SECTION 5: Firefighting measures**

**5.1. Extinguishing media**

**Suitable extinguishing media**

Water spray jet, Dry powder, Used from safe distance.

**Non suitable extinguishing media**

Full water jet

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

In case of combustion evolution of dangerous gases possible. In the event of fire the following can be released: dense black smoke; Exposure to decomposition products may be hazardous to health. Do not breathe fumes. Exposure to fire can cause containers to burst / explode.

**5.3. Advice for firefighters**

**Special protective equipment for fire-fighting**

In case of combustion use a suitable breathing apparatus. Wear protective clothing.

**Other information**

Cool endangered containers with water spray jet. Fire residues and contaminated fire-fighting water must be disposed of in accordance with the local regulations.

**SECTION 6: Accidental release measures**

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

Refer to protective measures listed in Sections 7 and 8. Use explosion-proof equipment/fittings and non-sparking tools. Take action to prevent static discharges. A propellant charge released (removed) from a cartridge is very poisonous when exposed to the skin and is poisonous when inhaled or swallowed. It is easily inflammable and there is danger of explosion. . In low layers and when not compressed they will quickly burn down. The primer is potentially very explosive.

**6.2. Environmental precautions**

Do not discharge into the drains/surface waters/groundwater.

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

Pick up mechanically. Clean contaminated floors and objects thoroughly, observing environmental regulations.

**6.4. Reference to other sections**

Information regarding Safe handling, see Section 7. Information regarding personal protective measures, see Section 8. Information regarding waste disposal, see Section 13.

**SECTION 7: Handling and storage**

**7.1. Precautions for safe handling**

**Advice on safe handling**

Handle with care - avoid bumps, friction and impact. Keep away from heat, open flames and hot surfaces.



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**Melting point**

Remarks not determined

**Freezing point**

Remarks not determined

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

Remarks not determined

**Flammability**

blow-sensitiv

**Upper and lower explosive limits**

Remarks not determined

**Flash point**

Value &gt; 100 °C

**Auto-ignition temperature**

Remarks not determined

**Decomposition temperature**

Remarks not determined

**pH value**

Remarks not determined

**Viscosity**

Remarks not determined

**Solubility(ies)**

Remarks not determined

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

Remarks not determined

**Vapour pressure**

Remarks not determined

**Density and/or relative density**

Remarks not determined

**Relative vapour density**

Remarks not determined

**9.2. Other information****Odour threshold**

Remarks not determined

**Evaporation rate (ether = 1) :**

Remarks not determined

**Solubility in water**

Remarks insoluble

**Explosive properties**

evaluation explosive

**Oxidising properties**

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Remarks not determined

**Other information**

None known

**SECTION 10: Stability and reactivity**

**10.1. Reactivity**

Heat or blow onto primer cap will lead to the ignition of single cartridges.

**10.2. Chemical stability**

Stable under normal conditions.

**10.3. Possibility of hazardous reactions**

No hazardous reactions known.

**10.4. Conditions to avoid**

Keep away from: acid. Lye. Oil. aromatic carbon hydrides

**10.5. Incompatible materials**

None known

**10.6. Hazardous decomposition products**

The cloud following a reaction contains carbon monoxide and nitric gases. The deposits contain lead and barium compounds.

**SECTION 11: Toxicological information**

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

**Acute oral toxicity**

Remarks Based on available data, the classification criteria are not met.

**Acute dermal toxicity**

Remarks Based on available data, the classification criteria are not met.

**Acute inhalational toxicity**

Remarks Based on available data, the classification criteria are not met.

**Skin corrosion/irritation**

Remarks Based on available data, the classification criteria are not met.

**Serious eye damage/irritation**

Remarks Based on available data, the classification criteria are not met.

**Sensitization**

Remarks Based on available data, the classification criteria are not met.

**Subacute, subchronic, chronic toxicity**

Remarks Based on available data, the classification criteria are not met.

**Mutagenicity**

Remarks Based on available data, the classification criteria are not met.

**Reproductive toxicity**

Remarks Based on available data, the classification criteria are not met.

**Carcinogenicity**

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Remarks Based on available data, the classification criteria are not met.

**Specific Target Organ Toxicity (STOT)**

Remarks Based on available data, the classification criteria are not met.

**11.2. Information on other hazards**

**Endocrine disrupting properties with respect to humans**

No data available.

**Other information**

No adverse health effects are expected from this product provided it is handled properly and industrial hygiene measures are observed.

The contained ingredients can be harmful for humanx, but they are hermetically enclosed in the article and can't be released. The dismantling of the article is prohibited.

There is no data available on the product apart from the information given in this subsection.

**SECTION 12: Ecological information**

**12.1. Toxicity**

**General information**

The product is not expected to be hazardous to the environment.

**12.2. Persistence and degradability**

**General information**

not determined

**12.3. Bioaccumulative potential**

**General information**

not determined

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

Remarks not determined

**12.4. Mobility in soil**

**General information**

not determined

**12.5. Results of PBT and vPvB assessment**

**General information**

not determined

**12.6 Endocrine disrupting properties**

**Endocrine disrupting properties with respect to the environment**

No data available.

**12.7. Other adverse effects**

**General information**

not determined

**General information / ecology**

Do not discharge product unmonitored into the environment.

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## **SECTION 13: Disposal considerations**

### **13.1. Waste treatment methods**

#### **Disposal recommendations for the product**

EWC waste code 16 04 01\* waste ammunition

Allocation of a waste code number, according to the European Waste Catalogue (EWC), should be carried out in agreement with the regional waste disposal company.




Fully ignited cartridges may be disposed of as normal waste, they are not dangerous waste.

Unfired cartridges which cannot be used for their original purpose any more are to be handed over to authorized persons in adherence to the local regulations, item 14 of the dangerous goods regulations is especially to be adhered to.

#### **Disposal recommendations for packaging**

Packaging that cannot be cleaned should be disposed off in agreement with the regional waste disposal company.

## **SECTION 14: Transport information**

	<b>Land transport ADR/RID</b>	<b>Marine transport IMDG/GGVSee</b>	<b>Air transport ICAO/IATA</b>
<b>14.1. UN number or ID number</b>	0014	0014	0014
<b>14.2. UN proper shipping name</b>	CARTRIDGES FOR TOOLS, BLANK	CARTRIDGES FOR TOOLS, BLANK	CARTRIDGES FOR TOOLS, BLANK
<b>14.3. Transport hazard class(es)</b>	1	1.4S	1.4S
Label			
Limited Quantity	5 kg	5 kg	
Transport category	4		
<b>14.5. Environmental hazards</b>	-		-
Tunnel restriction code	E		

### **Information for all modes of transport**

#### **14.6. Special precautions for user**

The relevant transport regulations have to be considered.

### **Other information**

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

Not relevant

## **SECTION 15: Regulatory information**

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

#### Water Hazard Class (Germany)

Water Hazard Class (Germany) Not water hazardous

Remarks Product, not applicable.

#### Other regulations, restrictions and prohibition regulations

National: Cartridges are subjected to marking obligation and have been released according to the CIP regulations.

International: The passing on to other persons, the receipt and the handling are subject to the regulations valid in the appropriate country.

EU regulations:

Directive 2013/29/EU on the making available on the market of pyrotechnic articles.

### 15.2. Chemical safety assessment

For this preparation a chemical safety assessment has not been carried out.

## **SECTION 16: Other information**

#### Hazard statements listed in Chapter 3

H200	Unstable explosive.
H201	Explosive; mass explosion hazard.
H204	Fire or projection hazard.
H300	Fatal if swallowed.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H310	Fatal in contact with skin.
H311	Toxic in contact with skin.
H330	Fatal if inhaled.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H351	Suspected of causing cancer.
H360Df	May damage the unborn child. Suspected of damaging fertility.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

#### CLP categories listed in Chapter 3

Acute Tox. 1	Acute toxicity, Category 1
Acute Tox. 2	Acute toxicity, Category 2
Acute Tox. 3	Acute toxicity, Category 3
Acute Tox. 4	Acute toxicity, Category 4
Aquatic Acute 1	Hazardous to the aquatic environment, acute, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic, Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic, Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic, Category 3
Carc. 2	Carcinogenicity, Category 2

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Expl. 1.1	Explosive, Division 1.1
Expl. 1.4	Explosive, Division 1.4
Repr. 1A	Reproductive toxicity, Category 1A
STOT RE 2	Specific target organ toxicity - repeated exposure, Category 2
Unst. Expl.	Explosive, unstable

**Supplemental information**

Relevant changes compared with the previous version of the safety data sheet are marked with: \*\*\*

This information is based on our present state of knowledge. However, it should not constitute a guarantee for any specific product properties and shall not establish a legally valid relationship.

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.