VOLUNTARY SAFETY INFORMATION

1. Identification of the substance/mixture and of the company/undertaking

1.1	Product identifier:	Livestock stun blanks 9x17 mm
		Charge level: green, yellow, blue, red

1.2 Identified uses: The article is intended for professional use.

1.3 Details of the supplier of the safety data sheet: Manufactured for: Cotran Corporation P.O. Box: P.O. Box 130 Postal code / City: Portsmouth, RI 02871 Country: United States Telephone: +1-401-682-1555 Telefax: +1-401-682-1775 E-mail (competent person): info@cotrancorp.com Information contact: +1-401-339-5699

1.4 Emergency telephone number: +1-401-339-5699

2. <u>Hazards identification</u>

- 2.1 Classification of the substance or mixture:
- 2.1.1 Classification according to Regulation (EC) No 1272/2008 [CLP]: Hazard classes and hazard categories: Explosive substances/mixtures and articles Division 1.4 Expl. 1.4
- 2.1.2 Classification according to Directive 1999/45/EC: The article is not subject to this directive.
- 2.2 Label elements:
- 2.2.1 Labelling according Regulation (EC) No 1272/2008 [CLP]:

Hazard pictograms:



Signal word: Hazard statements:	Warning 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 container.
	P250	Do not subject to grinding/shock//friction.
	P280	Wear protective gloves/protective clothing/eye protection/face protection.
	P370+P380	In case of fire: Evacuate area.
	P374	Fight fire with normal precautions from a reasonable distance.
	P401	Store in accordance with: national regulations

2.2.2 Labelling (67/548/EEC or 1999/45/EC): The article does not have to be labelled according to guideline 1999/45/EC.

2.3 Other hazards:

This article contains hazardous substances or mixtures not intended to be released under normal or reasonably foreseeable conditions of use.

2.3.1 Adverse physicochemical effects:

This article can be ignited by heat, sparks, flames or other sources of ignition (e.g. static electricity, pilot lights, or mechanical/electrical equipment).

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2.3.2 Adverse human health effects and symptoms: The dismantling of the article is prohibited. Please observe in any case the safety information.

3. Composition/information on ingredients.

3.1 Mixtures:

Substance name	EG-No.	REACH- RegNo.	Index- No.	CAS- No.	Concen tration	Classification accor (EC) No 12	0 0	Classification according to Directive	
					(%)	Hazard classes/ Hazard categories	Hazard statements	67/548/EEC	
Nitroglycerine	200-240-8	unknown	603- 034-00-	55-63-0	3– 10	Unst. Expl. Acute Tox. 1	200 300, 310, 330	Explosive Very toxic	
			X			STOT RE 2 Aquatic chronic 2	373 411	Dangerous for the environment 3-26/27/28-33-51/53	
Diphenylamine	204-539-4	unknown	612- 026-00- 5	122-39- 4	0,1– 1	Acute Tox. 3 STOT RE 2 Aquatic acute 1 Aquatic chronic 1	301, 311, 331 373 400 410	Toxic Dangerous for the environment 23/24/25-33-50/53	
Lead styphnate	239-290-0	01- 2119543737 -30-0000	609- 019-00- 4	15245- 44-0	0,1-1	Unst. Expl. Repr. 1A Acute Tox. 4 STOT RE 2 Aquatic acute 1 Aquatic chronic 1	200 360Df 302, 332 373 400 410	Explosive Toxic Dangerous for the environment 61-3-20/22-33-50/53-62	

3.2 Remark:

Further ingredients are below the limits of consideration according to regulation 1999/45/EC or possess only physicochemical properties.

Full text of R-, H- and EUH-phrases: see section 16.

4. First aid measures

4.1 General information:

First aid measures only required by release of ingredients or generation of decomposition products. Medical treatment necessary. Remove contaminated clothing immediately.

- 4.2 Following inhalation: In case of inhalation of decomposition products, affected person should be moved into fresh air and kept still. Apply cortisone spray at early stage.
- 4.3 Following skin contact: After contact with skin, wash immediately with soap and plenty of water.
- 4.4 Following eye contact: In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding evelids apart and consult an ophthalmologist.
- 4.5 Following ingestion: If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention. Do NOT induce vomiting.
- 4.6 Self-protection of the first aider: First aider: Pay attention to self-protection!

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4.7 Notes for the doctor:

If decomposition products are inhaled the following symptoms can occur: Unconsciousness, Impaired consciousness, Cyanosis (blue coloured blood), Vomiting, Cardiac arrhythmias, Headache, Spasms, Circulatory collapse, Dizziness, Impairment of vision, Nausea

Treatment:

Supervise the blood circulation. Regulation of the blood circulation, possible shock treatment. Where appropriate artificial ventilation.

In the case of bluish discoloration (lips, earlobes, finger nails) give oxygen as soon as possible. In the case of lung irritation: Primary treatment by using Corticoid spray, e.g. Auxiloson spray, Pulmicortdosage-spray (Auxiloson and Pulmicort are registered trademarks).

5. <u>Fire-fighting measures</u>

- 5.1 Suitable extinguishing media: Water and extinguishing powder from safe distance at fire in the surroundings.
- 5.2 Extinguishing media which must not be used for safety reasons: not applicable.
- 5.3 Hazardous combustion products: In case of fire may be liberated: Carbon monoxide, Carbon dioxide (CO2), Nitrous gases (NO_X)
- 5.4 Special protective equipment for fire-fighters: Wear a self-contained breathing apparatus and chemical protective clothing.
- 5.5 Additional information:

Do not inhale explosion and combustion gases. Co-ordinate fire-fighting measures to the fire surroundings. Do not allow run-off from fire-fighting to enter drains or water courses. Move undamaged containers from immediate hazard area if it can be done safely.

6. Accidental release measures

- 6.1 Personal precautions: Avoid generation of dust. Remove all sources of ignition. Wear breathing apparatus if exposed to vapours/dusts/aerosols. Remove persons to safety. See protective measures under point 7 and 8.
- 6.2 Environmental precautions: Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.
- 6.3 Methods for cleaning up: Suitable material for taking up: Water Take up mechanically, placing in appropriate containers for disposal. Avoid generation of dust.

7. Handling and Storage

- 7.1 Handling:
- 7.1.1 Advices on safe handling: It is recommended to design all work processes always so that the following is excluded: Inhalation of dust/particles, skin contact, eye contact, depositing of dust. Working places should be designed allow cleaning at any time.
- 7.1.2 Technical measures: Provide adequate ventilation as well as local exhaustion at critical locations.

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- 7.1.3 Precautions against fire and explosion: The article is: explosive.
 Keep away from sources of ignition - No smoking.
 Handle with care - avoid bumps, friction and impact.
 Wear anti-static footwear and clothing.
 Take precautionary measures against static discharges.
- 7.2 Storage:
- 7.2.1 Requirements for storage rooms and vessels / Technical measures and storage conditions: Keep/store only in original container. Store in a place accessible by authorized persons only. Storage temperature: 0°C (32°F) to + 30°C (86°F) Recommended storage temperature: + 20°C (68 °F) Relative air humidity (%): max. 60
- 7.2.2 Hints on joint storage: Do not store together with inflammable or other substances that mean an increase of risk. Observe in addition any national regulations.

7.2.3	Storage class:	Explosive substances
		Storage class: 1.4
		Compatibility group: S

8. <u>Exposure controls / Personal protection</u>

8.1 Exposure limit values:

Preventive industrial medical examinations are to be offered for professional users.

Occupational exposure limits (OEL):

CAS-No. EC-No.	Limit value type (country of origin)	Substance name	OE ml/m³	L mg/m ³	Peak limitation	Remarks / Source
630-08-0 211-128-3	AGW (DE)	Carbon monoxide	30	35	1(II)	TRGS 900
124-38-9 204-696-9	AGW (DE)	Carbon dioxide	5000	9100	2(II)	TRGS 900
	AGW (DE)	A: Alveolar fraction E: Respirable fraction		3 10	2(II)	TRGS 900

Biological occupational exposure limit values:

CAS-No. EC-No.	Limit value type (country of origin)	Substance name	Parameter	Limit value	Test material	Remarks / Source
630-08-0 211-128-3	BGW (DE)	Carbon monoxide	CO-Hb	5 %	Whole blood (B)	TRGS 903

- 8.2 Exposure controls:
- 8.2.1 Technical measures to prevent exposure: See section 7. Any further measures are not necessary.

8.2.2 Personal protection equipment:

_	· · · · · · · · · · · · · · · · · · ·	
	Respiratory protection:	No personal respiratory protective equipment normally required. Dust formation: Filtering Half-face mask (DIN EN 149) FFP2
	I I a mail in marker attained	
	Hand protection:	Hand protection is not required
	Eye protection:	Eye glasses with side protection or visor made of safety glass.
	Protective clothing:	Wear anti-static footwear and clothing.
	Protection of the ears:	Necessary.
	General health and	
	safety measures:	When using do not eat, drink, smoke, sniff. Wash hands before breaks and after work.

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9. Physical and chemical Properties

No data available, article.

10. Stability and Reactivity

 10.1 Conditions to avoid: In case of warming: In case of impact or pressure influence: Reaction takes place at temperatures above:

10.2 Materials to avoid: Reaction: Acid, Alkali (Lye)

10.3 Hazardous decomposition products: Thermal decomposition can lead to the escape of irritating gases and vapours. Exothermal decomposition with formation of: carbon monoxide, carbon dioxide, nitrous gases (NOx), metal oxides

11. Toxicological information

 11.1 General remarks: No harmful effects are to be expected if used properly. The contained ingredients can be harmful for humans, but they are hermetically enclosed in the article and cannot be released. The dismantling of the article is prohibited.

12. Ecological information

12.1 General remarks:

No harmful effects are to be expected if used properly. The contained ingredients can be harmful for the environment, but they are hermetically enclosed in the article and cannot be released. The dismantling of the article is prohibited.

13. Disposal considerations

13.1 Product/Packaging disposal: Dispose of waste according to applicable legislation. Non-contaminated packages may be recycled.

 13.2 List of proposed waste codes/waste designations in accordance with AVV: Waste codes product: 16 04 01*
 Waste name: waste ammunition Remark: hazardous waste

13.3 Additional information: Completely ignited articles may be recycled.

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Danger of explosion Danger of explosion ca. 150 °C (302 °F)

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14. Transport information

14.1 Land / sea / air transport:

	Land transport Sea transport Air trans						
	(ADR/RID) (IMDG) (ICAO-TI / IA						
	Kartuschen für technische Zwecke						
Official transport	Cartridges, power device						
designation	Cartouches pour pyromécanismes						
_	Munkavégző töltetek						
Class	1.4S						
UN-No.	0323						
Packing group	I						
Special provisions	347 A165, A802						
Limited quantity	0 Forbidden						
Tunnel restriction code	E	not applicable	not applicable				
EmS-No.	not applicable	F-B, S-X	not applicable				

14.2 Packaging:

. alona ginigi		
Permitted packing	according to packir	ng instructions:
According to ADR/	RID/IMDG-Code:	P134
According to ICAO	-TI/IATA-DGR:	134
Inner:	e.g. receptacles of	plastic, fibreboard
Intermediate:	not required	
Outer:	authorized box of packing group II,	
	e.g. of fibreboard (4G) or of natural wood, ordinary (4C1)

14.3 Information of mass: Net explosive quantity (NEQ) per article: max. 0,5 g

Total mass per article: max. 2,6 g

 14.4 Additional information: Exemptions (1.1.3.6 ADR): unlimited. Approvals US Department of Transportation (DOT): EX2009035214 UN Test 6 (d): passed

15. <u>Regulatory information</u>

15.1 Safety, health and environmental regulations/specific legislation:

15.1.1 EU-Legislation:

Directive 93/15/EEC on the placing on the market and supervision of explosives for civil uses. Directive 91/477/EEC on control of the acquisition and possession of weapons. Regulation (EC) No. 1272/2008 on classification, labelling and packaging of substances and mixtures.

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15.1.2 National regulations:

Observe in addition any national regulations! Preventive industrial medical examinations are to be offered.

Water hazard class (WGK): Article, not applicable

<u>To observe:</u> Floors have to conform to the "Guidelines for avoidance of ignition hazards due to electrostatic charges" (BGR 132).

Chemikaliengesetz (ChemG) Sprengstoffgesetz (SprengG) Waffengesetz (WaffG) Beschussgesetz (BeschussG) Kriegswaffenkontrollgesetz (KWKG) Gefahrstoffverordnung (GefStoffV) Technische Regeln für Gefahrstoffe: Berufsgenossenschaftliche Vorschriften:

TRGS 510, 900, 903, 905 BGV B5

16. Other information

- 16.1 Indication of changes: First edition.
- 16.2 Relevant R-, H- and EUH-phrases (Number and full text):

H-phrases: 200

- Unstable explosive.
- 300 Fatal if swallowed.
- 301 Toxic if swallowed.
- 302 Harmful if swallowed.
- 310 Fatal in contact with skin.
- 311 Toxic in contact with skin.
- 330 Fatal if inhaled.
- 331 Toxic if inhaled.
- Harmful if inhaled.
- 360Df May damage the unborn child. Suspected of damaging fertility.
- 373 May cause damage to organs through prolonged or repeated exposure.
- 400 Very toxic to aquatic life.
- 410 Very toxic to aquatic life with long lasting effects.
- 411 Toxic to aquatic life with long lasting effects.

R-phrases:

•	
0	Extreme risk of explosion by check friction fire or other equipage of imitian
3	Extreme risk of explosion by shock, friction, fire or other sources of ignition.
0	

- 20/22 Harmful by inhalation and if swallowed.
- 23/24/25 Toxic by inhalation, in contact with skin and if swallowed.
- 26/27/28 Very toxic by inhalation, in contact with skin and if swallowed.
- 33 Danger of cumulative effects.
- 50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- 51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. 61 May cause harm to the unborn child.
- 62 Possible risk of impaired fertility.

16.3 Further information:

The above information describes exclusively the safety requirements of the article and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the article for storage, processing, transport and disposal. The information cannot be transferred to other articles.

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