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

1.1 Product identifier: Muzzle loader primer caps
3,95 mm SINOXID: 1055, 1075, 1075 plus
5,75 mm SINOXID: 1081, 1081 FL
6 mm SINOXID: 1218

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

1.3 Details of the supplier of the safety data sheet:

Manufacturer:	RUAG Ammotec GmbH
Street:	Kronacher Str. 63
Postal code / City:	90765 Fürth
Country:	Germany
Telephone:	+49 911 7930 0
Telefax:	+49 911 7930 680
E-mail (competent person):	sicherheitsdatenblaetter.ammotec@ruag.com
Information contact:	+49 911 7930 289 (technical support)

1.4 Emergency telephone number: +49 911 7930 0

2. Hazards identification

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:	**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 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).

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-Reg.-No.	Index-No.	CAS-No.	Concentration (%)	Classification according to Regulation (EC) No 1272/2008		Classification according to Directive 67/548/EEC
						Hazard classes/ Hazard categories	Hazard statements	
Lead styphnate	239-290-0	01-2119543737-30-0000	609-019-00-4	15245-44-0	3 – 10	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
Barium nitrate	233-020-5	unknown	056-002-00-7	10022-31-8	3 – 10	Ox. Sol. 2 Acute Tox. 4	272 302, 332	Oxidizing Harmful 8-20/22
Lead dioxide	215-174-5	unknown	082-001-00-6	1309-60-0	1 – 3	Ox. Sol. 3 Repr. 1A Acute Tox. 4 STOT RE 2 Aquatic acute 1 Aquatic chronic 1	272 360Df 302, 332 373 400 410	Toxic Dangerous for the environment 61-20/22-33-50/53-62
Antimony sulfide	215-713-4	unknown	un-known	1345-04-6	1 – 3	Acute Tox. 4 Aquatic chronic 2	302, 332 411	Harmful Dangerous for the environment 20/22-51/53

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. Take off immediately all contaminated clothing.

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 eyelids 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!

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, Pulmicort-dosage-spray (Auxiloson and Pulmicort are registered trademarks).

5. Fire-fighting measures

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 Precautions for safe 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.
Wear personal protection equipment (refer to section 8).

7.1.2 Measures to prevent fire:
The product 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.

7.1.3 Measures to prevent aerosol and dust generation:
Provide adequate ventilation as well as local exhaustion at critical locations.

7.1.4 Advices on general occupational hygiene
When using do not eat, drink, smoke, sniff.
Wash hands before breaks and after work.
Take off immediately all contaminated clothing.

7.2 Conditions for safe storage, including any incompatibilities:
7.2.1 Technical measures and storage conditions:

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 Requirements for storage rooms and vessels:
Keep/store only in original container.
Store in a place accessible by authorized persons only.

7.2.3 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.

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

8. Exposure controls / Personal protection

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	OEL ml/m³	OEL mg/m³	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		1,25 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
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.

9. Physical and chemical Properties

No data available, article.

10. Stability and Reactivity

10.1 Conditions to avoid:

In case of warming:	Danger of explosion
In case of impact or pressure influence:	Danger of explosion
Reaction takes place at temperatures above:	ca. 150 °C (302 °F)

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 03*
Waste name:	other waste explosives
Remark:	hazardous waste

13.3 Additional information:
Completely ignited articles may be recycled.

14. Transport information

14.1 Land / sea / air transport:

	Land transport (ADR/RID)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
Official transport designation	Anzündhütchen Primers, cap type Amorces à percussion		
Class	1.4S		
UN-No.	0044		
Packing group	II		
Special provisions	-		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:
Permitted packing according to packing instructions:
According to ADR/RID/IMDG-Code: P133
According to ICAO-TI/IATA-DGR: 133
Inner: e.g. receptacles of plastic, fibreboard or trays of plastic, fibreboard
Intermediate: only required, when the inner packagings are trays, e.g. receptacle of fibreboard
Outer: type approved and 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. 0,05 g

Total mass per article: max. 0,4 g

14.4 Additional information:
Exemptions (1.1.3.6 ADR): unlimited.
Approval of the US Department of Transportation (DOT):
EX2004120019 (1055, 1075, 1075 plus, 1081, 1081 FL)

15. Regulatory information

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.

15.1.2 Authorisations:
The following EC-Type Examination Certificates of the Federal Institute for Materials Research and Testing (BAM) are available:
Muzzle loader primer caps 3,95 mm SINOXID: 0589.EXP.4273/06
Muzzle loader primer caps 5,75 mm SINOXID: 0589.EXP.4274/06
Muzzle loader primer caps 6 mm SINOXID: 0589.EXP.3713/11
RUAG Ammotec GmbH declares hereby the conformity of the here mentioned articles with the directive 93/15/EEC relating to the placing on the market for explosives.

15.1.3 National regulations:

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

Water hazard class (WGK): Article, not applicable

To observe: 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: TRGS 510, 900, 903, 905
Berufsgenossenschaftliche Vorschriften: BGR 242

16. Other information

16.1 Indication of changes: Editorial revision.

16.2 Relevant R-, H- and EUH-phrases (Number and full text):

H-phrases:

200	Unstable explosives.
272	May intensify fire; oxidiser.
302+332	Harmful if swallowed or 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:

3	Extreme risk of explosion by shock, friction, fire or other sources of ignition.
8	Contact with combustible material may cause fire.
20/22	Harmful by inhalation 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.