Safety Data Sheet

According to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

Date of Issue: 18/05/2023 Version: 1.0

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product Identifier

Product Form : Mixture

Product Name : 12-Gauge Kinetic Round

1.2. Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

1.2.1. Relevant Identified Uses

Use of the Substance/Mixture : 0.61 Caliber Finned Projectile

1.2.2. Uses Advised Against No additional information available

1.3. Details of the Supplier of the Safety Data Sheet

Byrna Technologies Inc

100 Burtt Rd. Suite 1155

Andover, MA 01810 USA

+1 978-868-5011

www.byrna.com

info@byrna.com

1.4. Emergency Telephone Number

Emergency Number : VelocityEHS

(800)255-3924 (North America) +1 (813)248-0585 (International)

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the Substance or Mixture

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

Expl. 1.4 H204

Full text of hazard classes, H- and EUH-statements: see section 16

2.2. Label Elements

Labelling According to Regulation (EC) No. 1272/2008 [CLP]

Hazard Pictograms (CLP)

GHS01

Signal Word (CLP) : Warning

Hazard Statements (CLP) : H204 - Fire or projection hazard.

Precautionary Statements (CLP) : 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 - Do not subject to grinding/shock/friction.

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

protection/hearing protection.

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

fire when fire reaches explosives.

P370+P380+P375 - In case of fire: Evacuate area. Fight fire remotely due to the risk

of explosion.

P401 - Store in accordance with local regulations on explosives. P503 - Refer to manufacturer/supplier for information on

disposal/recovery/recycling.

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2.3. Other Hazards

Other Hazards Not Contributing to the Classification

: Energetic effects (blast effects, heat, noise, and shrapnel) from functioning of the product can cause serious physical injuries.

Component	
1,3-Benzenediol, 2,4,6-trinitro-,	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII
lead salt (15245-44-0)	This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

The mixture contains substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

Component	
1,3-Benzenediol, 2,4,6-trinitro-, lead salt(15245-44-0)	The substance is included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605
Nickel(7440-02-0)	The substance is included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product Identifier	%	Classification According to Regulation (EC) No. 1272/2008
Iron	(CAS-No.) 7439-89-6 (EC-No.) 215-168-2;231-096-4	90 – 94	Not classified
Barium nitrate	(CAS-No.) 10022-31-8 (EC-No.) 233-020-5	2 – 2,5	Ox. Sol. 2, H272 Acute Tox. 3 (Oral), H301 Acute Tox. 4 (Inhalation:dust,mist), H332 Eye Irrit. 2, H319
1,3-Benzenediol, 2,4,6-trinitro-, lead salt substance listed as REACH Candidate (Lead styphnate)	(CAS-No.) 15245-44-0 (EC-No.) 239-290-0 (EC Index-No.) 609-019-00-4	1-2	Unst. Expl., H200 Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation), H332 Carc. 1B, H350 Repr. 1A, H360Df STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Copper	(CAS-No.) 7440-50-8 (EC-No.) 231-159-6 (EC Index-No.) 029-024-00-X	< 0,1	Not classified
Aluminum	(CAS-No.) 7429-90-5 (EC-No.) 231-072-3 (EC Index-No.) 013-002-00-1	< 0,1	Flam. Sol. 1, H228 Water-react. 2, H261
Antimony sulfide (Sb2S3)	(CAS-No.) 1345-04-6 (EC-No.) 215-713-4	< 0,1	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation:dust,mist), H332 Carc. 2, H351 STOT RE 2, H373 Aquatic Chronic 2, H411
Nickel	(CAS-No.) 7440-02-0 (EC-No.) 231-111-4 (EC Index-No.) 028-002-00-7	< 0,1	Skin Sens. 1, H317 Carc. 2, H351 STOT RE 1, H372

Specific Concentration Limits:

Name	Product Identifier	Specific Concentration Limits		
1,3-Benzenediol, 2,4,6-trinitro-, lead salt	(CAS-No.) Not Applicable	(0,5 ≤C < 100) STOT RE 2, H373		
substance listed as REACH Candidate (Lead styphnate)	(EC Index-No.) 082-001-00-6	(2,5 ≤C < 100) Repr. 2, H361f		

Full text of H- and EUH-statements: see section 16

SECTION 4: FIRST AID MEASURES

4.1. Description of First-aid Measures

First-Aid Measures General : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

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First-Aid Measures After Inhalation : For particulates and dust: Move the affected person away from the contaminated

area and into the fresh air. Obtain medical attention if breathing difficulty persists. When symptoms occur: go into open air and ventilate suspected area.

First-Aid Measures After Skin Contact : For particulates and dust: Remove contaminated clothing. Remove contaminated

clothing. Drench affected area with water for at least 5 minutes. Obtain medical

attention if irritation develops or persists.

First-Aid Measures After Eye Contact : For particulates and dust: Rinse cautiously with water for at least 15 minutes.

Remove contact lenses, if present and easy to do so. Continue rinsing. Obtain

medical attention if irritation persists.

First-Aid Measures After Ingestion : Not expected to be a primary route of exposure. Rinse mouth. Do NOT induce

vomiting. Obtain medical attention.

4.2. Most Important Symptoms and Effects Both Acute and Delayed

Symptoms/Effects : Energetic effects (blast effects, heat, noise, and shrapnel) from functioning of the

product can cause serious physical injuries. . Not expected to present a significant

hazard under anticipated conditions of normal use.

Symptoms/Effects After Inhalation Symptoms/Effects After Skin Contact : Prolonged inhalation of dust may cause respiratory irritation.

: Skin contact with large amounts of dust may cause mechanical irritation.

: May cause mechanical eye irritation.: Ingestion may cause adverse effects.

Symptoms/Effects After Eye Contact Symptoms/Effects After Ingestion

Symptoms/Effects After Ingestion : Ingestion may Chronic Symptoms : None expecte

: None expected under normal conditions of use. Lead poisoning can occur through chronic exposure to post-deployment dusts/vapours. Symptoms of lead poisoning include headaches, abdominal pain, memory loss, kidney failure, anemia, change in skin tone or pallor, reproductive problems in men, weakness, pain, or tingling in the extremities.

4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand. Treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing Media

Suitable Extinguishing Media : DO NOT FIGHT FIRES INVOLVING EXPLOSIVES. Water may be applied through fixed

extinguishing system (sprinklers) as long as people need not be present for the

system to operate.

Unsuitable Extinguishing Media : DO NOT fight fires involving explosives.

5.2. Special Hazards Arising From the Substance or Mixture

Fire Hazard : Explosive, could cause fire and secondary explosions.

Explosion Hazard : Explosives, Division 1.4 - Explosives (with no significant blast hazard). Risk of

explosion if heated under confinement.

Reactivity : Fire or projection hazard.

Hazardous Combustion Products : Lead oxides. Metallic oxides. Carbon and nitrogen oxides.

5.3. Advice for Firefighters

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Precautionary Measures Fire : Exercise caution when fighting any chemical fire. In case of major fire and large

quantities: Evacuate area. Fight fire remotely due to the risk of explosion. This product is an explosive with a fire or projection hazard. DO NOT FIGHT FIRES

INVOLVING EXPLOSIVE MATERIALS.

Firefighting Instructions : DO NOT ATTEMPT TO FIGHT FIRE. Immediately evacuate all personnel from the

area to a safe distance. Guard against re-entry. Thermal decomposition can lead to release of irritating gases and vapours. Fight fire remotely due to the risk of

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explosion.

Protection During Firefighting : Do not enter fire area without proper protective equipment, including respiratory

protection.

Other Information : No additional information available.

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SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

General Measures : Keep away from heat, sparks, open flames, hot surfaces. – No smoking. Do not get in eyes, on skin, or on clothing. Evacuate danger area. Do not breathe dust.

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6.1.1. For Non-Emergency Personnel

Protective Equipment : Non-emergency personnel should evacuate the area of the spill and only enter

after emergency peresonnel have declared the area safe to enter. . Use

appropriate personal protective equipment (PPE).

Emergency Procedures : Evacuate unnecessary personnel. Evacuate danger area.

Measures In Case Of Dust Release : Not applicable.

6.1.2. For Emergency Responders

Protective Equipment : Equip cleanup crew with proper protection.

Emergency Procedures : Eliminate ignition sources. Ventilate area. Upon arrival at the scene, a first responder is expected to recognise the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained

personnel as soon as conditions permit.

6.2. Environmental Precautions

Prevent entry to sewers and public waters.

6.3. Methods and Materials for Containment and Cleaning Up

For Containment: Avoid shock and friction. Use only non-sparking tools. Contain solid spills with appropriate barriers and prevent migration and entry into sewers or streams.

disposal

Methods for Cleaning Up : Clean up spills immediately and dispose of waste safely. Mechanically recover the

product. Use only non-sparking tools. Be careful to avoid shock, friction, and contact with grit. Collect product for recovery or disposal. For release to land, contain discharge by constructing dykes or applying inert absorbent; for release to water, utilise damming and/or water diversion to minimise the spread of contamination. Collect contaminated soil and water, and absorbent for proper disposal. Notify applicable government authority if release is reportable or could

Absorb and contain with inert material. Place contents in suitable container for

adversely affect the environment. Transfer spilled material to a suitable container

for disposal. Contact competent authorities after a spill.

6.4. Reference to Other Sections

See Section 8 for exposure controls and personal protection and Section 13 for disposal considerations.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for Safe Handling

Additional Hazards When Processed : If mishandled, energetic effects (blast effects, heat, noise, and shrapnel) from

functioning of the product can cause serious physical injuries.

Precautions for Safe Handling : Keep away from sources of ignition - No smoking. Wash hands and other exposed

areas with mild soap and water before eating, drinking or smoking and when leaving work. Avoid prolonged contact with eyes, skin and clothing. Avoid breathing

dust.

Hygiene Measures : Always wash hands after handling the product. This product is an explosive and should only be used under the supervision of trained and licensed personnel.

Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking,

or smoking and again when leaving work.

7.2. Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures : Proper grounding procedures to avoid static electricity should be followed. Comply

with applicable regulations. Ground/bond container and receiving equipment.

Storage Conditionss : Store in accordance with applicable national storage class systems. Keep away from

heat, sparks, open flames, hot surfaces. — No smoking. Store under moderate temperatures recommended by competent authority. Store under dry conditions in a well ventilated magazine that has been approved for either detonator storage or explosive storage. Do NOT store explosives in a detonator magazine or detonators in an explosive magazine. Keep away from heat, spark and flames. Keep containers closed. Explosives should be kept well away from initiating explosives; protected

from physical damage; separated from oxidising materials,

flammables/combustibles, and sources of heat. Isolate from incompatibles.

Incompatible Materials : Strong acids. Flammable/Combustible materials.

Special Rules On Packaging : Keep only in the original container.

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7.3. Specific End Use(s)

0.61 Caliber Finned Projectile

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control Parameters

Please see section 16 for the legal basis of limit value information in section 8.1, including the national legislation or provision which gives rise to a given limit.

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Copper (7440-50-8)	OFF TWA (Lovel Burk BORL WAY OFF (COAC)	A A .3 th blobble for all a
Austria	OEL TWA (Legal Basis:BGBl. II Nr. 254/2018)	1 mg/m³ (inhalable fraction) 0,1 mg/m³ (respirable fraction, smoke)
Austria	OEL STEL (Legal Basis:BGBI. II Nr. 254/2018)	4 mg/m³ (inhalable fraction) 0,4 mg/m³ (respirable fraction, smoke)
Belgium	OEL TWA (Legal Basis:Royal Decree 21/01/2020)	0,2 mg/m³ (fume) 1 mg/m³ (dust and mist)
Bulgaria	OEL TWA (Legal Basis:Reg. No. 13/10)	0,1 mg/m³ (metal vapour)
Croatia	OEL TWA (Legal Basis:OG No. 91/2018)	0,2 mg/m³ (fume)
0	OF STEL (Level Party OC No. 04/2040)	1 mg/m³ (dust)
Croatia Czech Republic	OEL STEL (Legal Basis:OG No. 91/2018)	2 mg/m³ (dust) 1 mg/m³ (dust)
Czech kepublic	OEL TWA (Legal Basis:Reg. 41/2020)	0,1 mg/m³ (fume)
Denmark	OEL TWA (Legal Basis:BEK No. 698 of 28/05/2020)	1 mg/m³ (dust and powder) 0,1 mg/m³ (fume)
Estonia	OEL TWA (Legal Basis:Regulation No. 105)	1 mg/m³ (total dust) 0,2 mg/m³ (respirable dust)
Finland	OEL TWA (Legal Basis:HTP-ARVOT 2020)	0,02 mg/m³ (respirable dust)
France	OEL STEL (Legal Basis:INRS ED 984)	2 mg/m³ (dust)
France	OEL TWA (Legal Basis:INRS ED 984)	0,2 mg/m³ (fume) 1 mg/m³ (dust)
Greece	OEL TWA (Legal Basis:PWHSE)	0,2 mg/m³ (fume) 1 mg/m³ (dust)
Greece	OEL STEL (Legal Basis:PWHSE)	2 mg/m³ (dust)
Hungary	OEL TWA (Legal Basis:Decree No. 05/2020)	0,1 mg/m³ 0,01 mg/m³ (fume)
Hungary	OEL STEL (Legal Basis:Decree No. 05/2020)	0,2 mg/m³
Ireland	OEL TWA (Legal Basis:2020 COP)	0,2 mg/m³ (fume) 1 mg/m³ (dusts and mists)
Ireland	OEL STEL (Legal Basis:2020 COP)	2 mg/m³ (dusts and mists) 0,6 mg/m³ (calculated-fume)
USA ACGIH	OEL TWA (Legal Basis:IMDFN1)	0,2 mg/m³ (fume)
Latvia	OEL TWA (Legal Basis:Reg. No. 325)	0,5 mg/m³
Lithuania	OEL TWA (Legal Basis:HN 23:2011)	1 mg/m³ (inhalable fraction) 0,2 mg/m³ (respirable fraction)
Netherlands	OEL TWA (Legal Basis:OWCRLV)	0,1 mg/m³ (inhalable dust)
Norway	OEL TWA (Legal Basis:FOR-2020-04-06-695)	0,1 mg/m³ (fume) 1 mg/m³ (dust)
Norway	OEL STEL (Legal Basis:FOR-2020-04-06-695)	3 mg/m³ (value calculated-dust) 0,3 mg/m³ (value calculated-fume)
Poland	OEL TWA (Legal Basis:Dz. U. 2020 Nr. 61)	0,2 mg/m³
Portugal	OEL TWA (Legal Basis:Portuguese Norm NP 1796:2014)	0,2 mg/m³ (fume) 1 mg/m³ (dust and mist)
Romania	OEL TWA (Legal Basis:Gov. Dec. No 1.218)	0,5 mg/m³ (dust)
Romania	OEL STEL (Legal Basis:Gov. Dec. No 1.218)	0,2 mg/m³ (fume) 1,5 mg/m³ (dust)
Slovakia	OEL TWA (Legal Basis:Gov. Decree 33/2018)	1 mg/m³ (inhalable fraction) 0,2 mg/m³ (respirable fraction)
Spain	OEL TWA (Legal Basis:OELCAIS)	0,1 mg/m³ (see UNE EN 481:1995 on workplace atmospheres-respirable fraction)
Sweden	OEL TLV (Legal Basis:AFS 2018:1)	0,01 mg/m³ (respirable fraction)
Switzerland	OEL STEL (Legal Basis:OLVSNAIF)	0,2 mg/m³ (inhalable dust)
Switzerland	OEL TWA (Legal Basis:OLVSNAIF)	0,1 mg/m³ (inhalable dust)
Barium nitrate (1002	22-31-8)	
Finland	OEL TWA (Legal Basis:HTP-ARVOT 2020)	0,5 mg/m³ (Barium)
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Aluminum (7429-90-5)		10 mg/m³ (inhalahla fraction)	
Austria	OEL TWA (Legal Basis:BGBI. II Nr. 254/2018)	10 mg/m³ (inhalable fraction)	
Austria	OEL STEL (Legal Basis:BGBl. II Nr. 254/2018)	20 mg/m³ (inhalable fraction)	
Belgium	OEL TWA (Legal Basis:Royal Decree 21/01/2020) OEL TWA (Legal Basis:Reg. No. 13/10)	1 mg/m³ 10 mg/m³ (inhalable fraction)	
Bulgaria		1,5 mg/m³ (respirable fraction)	
Croatia	OEL TWA (Legal Basis:OG No. 91/2018)	10 mg/m³ (total dust, inhalable particles) 4 mg/m³ (respirable dust)	
Croatia	OEL BLV (Legal Basis:OG No. 91/2018)	200 μ g/l Parameter: Aluminum - Medium: urine - Sampling time: at the end of the work shift	
Czech Republic	OEL TWA (Legal Basis:Reg. 41/2020)	10 mg/m³ (dust)	
Denmark	OEL TWA (Legal Basis:BEK No. 698 of 28/05/2020)	5 mg/m³ (dust and powder; total) 2 mg/m³ (dust and powder; respirable)	
Estonia	OEL TWA (Legal Basis:Regulation No. 105)	10 mg/m³ (total dust) 4 mg/m³ (respirable dust)	
France	OEL TWA (Legal Basis:INRS ED 984)	10 mg/m³ (metal) 5 mg/m³ (dust)	
Germany	OEL TWA (Legal Basis:TRGS 900)	4 mg/m³ TWA MAK (dust, inhalable fraction)	
Germany	OEL TWA (Legal Basis:TRGS 900)	1,5 mg/m³ TWA MAK (dust, respirable fraction)	
Germany	OEL BLV (Legal Basis:TRGS 903)	50 μ g/g creatinine Parameter: Aluminum - Medium: urine - Sampling time: for long-term exposures: at the end of the shift after several shifts	
Greece	OEL TWA (Legal Basis:PWHSE)	10 mg/m³ (inhalable fraction) 5 mg/m³ (respirable fraction)	
Hungary	OEL TWA (Legal Basis:Decree No. 05/2020)	1 mg/m³ (respirable dust)	
Ireland	OEL TWA (Legal Basis:2020 COP)	1 mg/m³ (respirable fraction)	
Ireland	OEL STEL (Legal Basis:2020 COP)	3 mg/m³ (calculated-respirable dust)	
USA ACGIH	OEL TWA (Legal Basis:IMDFN1)	1 mg/m³ (respirable particulate matter)	
Latvia	OEL TWA (Legal Basis:Reg. No. 325)	2 mg/m³	
Lithuania	OEL TWA (Legal Basis:HN 23:2011)	5 mg/m³ (inhalable fraction) 2 mg/m³ (respirable fraction) 1 mg/m³	
Norway	OEL TWA (Legal Basis:FOR-2020-04-06-695)	5 mg/m³ (pyrotechnical-powder)	
Norway	OEL STEL (Legal Basis:FOR-2020-04-06-695)	10 mg/m³ (pyrotechnical-powder)	
Poland	OEL TWA (Legal Basis:Dz. U. 2020 Nr. 61)	2,5 mg/m³ (non-stabilised-inhalable fraction) 1,2 mg/m³ (non-stabilised-respirable fraction)	
Portugal	OEL TWA (Legal Basis:Portuguese Norm NP 1796:2014)	10 mg/m³ (metal dust)	
Portugal	OEL Chemical Category (Legal Basis:Portuguese Norm NP 1796:2014)	A4 - Not Classifiable as a Human Carcinogen	
Romania	OEL TWA (Legal Basis:Gov. Dec. No 1.218)	3 mg/m³ (dust) 1 mg/m³ (fume)	
Romania	OEL STEL (Legal Basis:Gov. Dec. No 1.218)	10 mg/m³ (dust) 3 mg/m³ (fume)	
Romania	OEL BLV (Legal Basis:Gov. Dec. No 1.218)	200 μg/l Parameter: Aluminum - Medium: urine - Sampling time: end of shift	
Slovakia	OEL TWA (Legal Basis:Gov. Decree 33/2018)	4 mg/m³ (inhalable dust) 1,5 mg/m³ (respirable dust)	
Slovakia	OEL BLV (Legal Basis:Gov. Decree 33/2018)	60 μg/g creatinine Parameter: Aluminum - Medium: urine - Sampling time: not critical	
Spain	OEL TWA (Legal Basis:OELCAIS)	1 mg/m³ (see UNE EN 481:1995 on workplace atmospheres- respirable fraction)	
Sweden	OEL TLV (Legal Basis:AFS 2018:1)	5 mg/m³ (total dust) 2 mg/m³ (respirable fraction)	
Switzerland	OEL TWA (Legal Basis:OLVSNAIF)	3 mg/m³ (respirable dust)	
Switzerland	OEL BLV (Legal Basis:OLVSNAIF)	50 μg/g creatinine Parameter: Aluminum - Medium: urine - Sampling time: after several shifts (for long-term exposures)	
Antimony sulfide (Sb2S3) (1345-04-6)			
Finland	OEL TWA (Legal Basis:HTP-ARVOT 2020)	0,5 mg/m³ (Antimony)	
Germany	OEL TWA (Legal Basis:TRGS 900)	0,006 mg/m³ (the risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed-respirable fraction)	
Lead compounds (Not	Applicable)		

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Austria	OEL TWA (Legal Basis:BGBl. II Nr. 254/2018)	0,1 mg/m³ (except Lead arsenate, Lead chromate, Lead chromate oxide and Lead alkyl compounds-inhalable fraction)
Austria	OEL STEL (Legal Basis:BGBl. II Nr. 254/2018)	0,4 mg/m³ (except Lead arsenate, Lead chromate, Lead chromate oxide and Lead alkyl compounds-inhalable fraction)
Czech Republic	OEL TWA (Legal Basis:Reg. 41/2020)	0,05 mg/m³ (except Alkyl compounds)
France	OEL TWA (Legal Basis:INRS ED 984)	0,1 mg/m³ (restrictive limit)
France	OEL Chemical Category (Legal Basis:INRS ED 984)	Carcinogen categories 1A, 1B, 2, Reproductive Toxin categories 1A, 1B, 2
France	OEL BLV (Legal Basis:Decree 2009-1570)	400 μg/l Parameter: Lead - Medium: blood (biological limit value, men) 300 μg/l Parameter: Lead - Medium: blood (biological limit value,
		women) 200 µg/l Parameter: Lead - Medium: blood (medical surveillance value, men) 100 µg/l Parameter: Lead - Medium: blood (medical surveillance value, women)
Hungary	OEL Chemical Category (Legal Basis:Decree No. 05/2020)	Repr1A except Tetraethyl lead
Ireland	OEL TWA (Legal Basis:2020 COP)	0,15 mg/m³ (except Tetraethyl lead)
Ireland	OEL STEL (Legal Basis:2020 COP)	0,45 mg/m³ (calculated)
Luxembourg	OEL TWA (Legal Basis:A-N 684)	0,15 mg/m³
Slovenia	OEL TWA (Legal Basis:No. 79/19)	0,1 mg/m³ (inhalable fraction)
Slovenia	OEL STEL (Legal Basis:No. 79/19)	0,4 mg/m³ (inhalable fraction)
Slovenia	OEL Chemical Category (Legal Basis:No. 79/19)	Category 1A as Pb
Switzerland	OEL STEL (Legal Basis:OLVSNAIF)	0,8 mg/m³ (except Alkyl compounds-inhalable dust)
Switzerland	OEL TWA (Legal Basis:OLVSNAIF)	0,1 mg/m³ (except Alkyl compounds-inhalable dust)
Switzerland	OEL Chemical Category (Legal Basis:OLVSNAIF)	Category C2 carcinogen except Alkyl compounds, Category 1A
	5 // 10 111111111111	developmental toxin except Alkyl compounds, Category 2 reproductive toxin except Alkyl compounds
Switzerland	OEL BLV (Legal Basis:OLVSNAIF)	400 μg/l Parameter: Lead - Medium: whole blood - Sampling time: no
		restrictions (except Alkyl compounds, men and women over 45 years old)
		100 µg/l Parameter: Lead - Medium: whole blood - Sampling time: no restrictions (except Alkyl compounds, women less than 45 years old)
Iron (7439-89-6)		
Bulgaria	OEL TWA (Legal Basis:Reg. No. 13/10)	6 mg/m³ (containing <2% free Crystalline silicon dioxide in respirable fraction-dust, inhalable fraction)
Slovakia	OEL TWA (Legal Basis:Gov. Decree 33/2018)	6 mg/m³ (total aerosol)
Nickel (7440-02-0)		
Austria	TRK OEL TWA (Legal Basis:BGBl. II Nr. 254/2018)	0,5 mg/m³ (dust, inhalable fraction)
Austria	OEL Chemical Category (Legal Basis:BGBl. II Nr. 254/2018)	Group A1 Carcinogen dust, Respiratory sensitiser dust, Skin sensitiser
Belgium	OEL TWA (Legal Basis:Royal Decree 21/01/2020)	1 mg/m ³
Bulgaria	OEL TWA (Legal Basis:Reg. No. 13/10)	0,05 mg/m ³
Bulgaria	OEL BLV (Legal Basis:Reg. No. 13/10)	45 μg/l Parameter: Nickel - Medium: urine - Sampling time: after several work shifts
Croatia	OEL TWA (Legal Basis:OG No. 91/2018)	0,5 mg/m³
Croatia	OEL BLV (Legal Basis:OG No. 91/2018)	10 μg/l Parameter: Nickel - Medium: plasma - Sampling time: at the end of the work shift 8 μg/g creatinine Parameter: Nickel - Medium: urine - Sampling time: at the end of the work shift (calculated on the average Creatinine value of 1.2 g/L urine)
Czech Republic	OEL TWA (Legal Basis:Reg. 41/2020)	0,5 mg/m³ (respirable fraction of aerosol)
Czech Republic	OEL Chemical Category (Legal Basis:Decree No. 107/2013)	Sensitiser
Czech Republic	OEL BLV (Legal Basis:Reg. 41/2020)	0,077 µmol/mmol Creatinine Parameter: Nickel - Medium: urine - Sampling time: discretionary 0,04 mg/g creatinine Parameter: Nickel - Medium: urine - Sampling time: discretionary
Denmark	OEL TWA (Legal Basis:BEK No. 698 of 28/05/2020)	0,05 mg/m³ (dust and powder)
Estonia	OEL TWA (Legal Basis:Regulation No. 105)	0,5 mg/m³
Estonia	OEL Chemical Category (Legal Basis:Regulation No. 105)	Sensitiser
Finland	OEL TWA (Legal Basis:HTP-ARVOT 2020)	0,01 mg/m³ (respirable dust)
Finland	OEL BLV (Legal Basis:HTP-ARVOT 2020)	0,1 µmol/l Parameter: Nickel - Medium: urine - Sampling time: after the shift after a working week or exposure period
France	OEL TWA (Legal Basis:INRS ED 984)	1 mg/m³
	<u> </u>	

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		1 mg/m³ (metal gratings)	
France	OEL Chemical Category (Legal Basis:INRS ED 984)	Carcinogen category 2	
Germany	OEL TWA (Legal Basis:TRGS 900)	0,006 mg/m³	
Germany	OEL Chemical Category (Legal Basis:TRGS 900)	Skin sensitisation	
Greece	OEL TWA (Legal Basis:PWHSE)	1 mg/m³	
Hungary	OEL TWA (Legal Basis:Decree No. 05/2020)	0,01 mg/m³	
Hungary	OEL Chemical Category (Legal Basis:Decree No. 05/2020)	Sensitiser, Carc. 1B - Presumed Carcinogen	
Ireland	OEL TWA (Legal Basis:2020 COP)	0,5 mg/m³	
Ireland	OEL STEL (Legal Basis:2020 COP)	1,5 mg/m³ (calculated)	
Ireland	OEL Chemical Category (Legal Basis:Decree No. 05/2020)	Sensitiser	
USA ACGIH	OEL TWA (Legal Basis:IMDFN1)	1,5 mg/m³ (inhalable particulate matter)	
USA ACGIH	BEI Value (Legal Basis:IMDFN1)	5 μg/l Parameter: Nickel - Medium: urine - Sampling time: post-shift at end of workweek (background)	
Latvia	OEL TWA (Legal Basis:Reg. No. 325)	0,05 mg/m³	
Latvia	OEL BLV (Legal Basis:Reg. No. 325)	3 μg/l Parameter: Nickel - Medium: urine	
Lithuania	OEL TWA (Legal Basis:HN 23:2011)	0,5 mg/m³	
Lithuania	OEL Chemical Category (Legal Basis:HN 23:2011)	Sensitiser, Carcinogen	
Norway	OEL TWA (Legal Basis:FOR-2020-04-06-695)	0,05 mg/m ³	
Norway	OEL STEL (Legal Basis:FOR-2020-04-06-695)	0,15 mg/m³ (value calculated)	
Norway	OEL Chemical Category (Legal Basis:FOR-2020-04-06-695)	Carcinogen, Potential reproductive hazard, Allergenic substance	
Poland	OEL TWA (Legal Basis:Dz. U. 2020 Nr. 61)	0,25 mg/m³	
Portugal	OEL TWA (Legal Basis:Portuguese Norm NP 1796:2014)	1,5 mg/m³ (inhalable fraction)	
Portugal	OEL Chemical Category (Legal Basis:Portuguese Norm NP 1796:2014)	A5 - Not Suspected as a Human Carcinogen	
Romania	OEL TWA (Legal Basis:Gov. Dec. No 1.218)	0,1 mg/m³	
Romania	OEL STEL (Legal Basis:Gov. Dec. No 1.218)	0,5 mg/m³	
Romania	OEL Chemical Category (Legal Basis:Gov. Dec. No 1.218)	C2	
Romania	OEL BLV (Legal Basis:Gov. Dec. No 1.218)	3 μ g/l Parameter: Nickel - Medium: urine - Sampling time: end of shift (SCOEL)	
Slovakia	OEL BLV (Legal Basis:Gov. Decree 33/2018)	0,03 mg/l Parameter: Nickel - Medium: blood - Sampling time: end of exposure or work shift	
Slovenia	OEL TWA (Legal Basis:No. 79/19)	0,006 mg/m³ (respirable fraction)	
Slovenia	OEL STEL (Legal Basis:No. 79/19)	0,048 mg/m³ (respirable fraction)	
Slovenia	OEL Chemical Category (Legal Basis:No. 79/19)	Category 2	
Spain	OEL TWA (Legal Basis:OELCAIS)	1 mg/m³ (manufacturing, commercialisation and use restrictions according to REACH)	
Spain	OEL Chemical Category (Legal Basis:OELCAIS)	Sensitiser	
Sweden	OEL TLV (Legal Basis:AFS 2018:1)	0,5 mg/m³ (total dust)	
Sweden	OEL Chemical Category (Legal Basis:AFS 2018:1)	Sensitiser	
Switzerland	OEL TWA (Legal Basis:OLVSNAIF)	0,5 mg/m³ (inhalable dust)	
Switzerland	OEL Chemical Category (Legal Basis:OLVSNAIF)	Sensitiser, Category C2 carcinogen	
Switzerland	OEL BLV (Legal Basis:OLVSNAIF)	45 μg/l Parameter: Nickel - Medium: urine - Sampling time: end of shift, and after several shifts (for long-term exposures)	

8.2. Exposure Controls Appropriate Engineering Controls

Personal Protective Equipment

- : Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed. Suitable eye/body wash equipment should be available in the vicinity of any potential exposure. Proper grounding procedures to avoid static electricity should be followed. Product to be handled in a closed system and under strictly controlled conditions. Use explosion-proof equipment.
- : Gloves. Protective clothing. Protective goggles or glasses. Insufficient ventilation: wear respiratory protection. Personal protective equipment should be chosen in accordance with Regulation (EU) 2016/425, CEN standards, and in discussion with the supplier of the protective equipment.









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Materials for Protective Clothing : Chemically resistant materials and fabrics. Wear fire/flame resistant/retardant

clothing.

Hand Protection : When needed, wear protective gloves to protect against thermal and/or

mechanical hazards.

Eye Protection : Chemical goggles or safety glasses. **Skin and Body Protection** : Wear suitable protective clothing.

Respiratory Protection : If exposure limits are exceeded or irritation is experienced, approved respiratory

protection should be worn. In case of inadequate ventilation, oxygen deficient atmosphere, or where exposure levels are not known wear approved respiratory

protection.

Other Information : When using, do not eat, drink or smoke.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on Basic Physical and Chemical Properties

Physical State : Solid

Colour, Appearance : Black casing containing primer, wad and projectile.

Colour : No data available

Odour : Odourless pre-deployment. Slight post-deployment odour.

Odour Threshold: No data availablepH: Not availablepH solution: Not availableEvaporation Rate: No data availableMelting Point: Not availableFreezing Point: Not availableBoiling Point: No data available

Flash Point : 310 – 330 °C (590 – 626 °F)

Auto-Ignition Temperature : Not applicable **Decomposition Temperature** : No data available **Flammability** : No data available **Vapour Pressure** : No data available Relative Vapour Density At 20 °C : No data available **Relative Density** : No data available Solubility : No data available Partition Coefficient n-Octanol/Water : No data available

Explosive Properties : Explosives, Division 1.4 - Explosives (with no significant blast hazard).

No data available

Oxidising Properties : No data available **Explosive Limits** : Not applicable **Particle Size** : Not available **Particle Size Distribution** : Not available : Not available **Particle Shape** : Not available **Particle Aspect Ratio** : Not available **Particle Aggregation State Particle Agglomeration State** : Not available **Particle Specific Surface Area** : Not available **Particle Dustiness** : Not available

9.2. Other Information No additional information available

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

Viscosity

Fire or projection hazard.

10.2. Chemical Stability

Risk of explosion if heated under confinement. Risk of explosion by shock, friction, fire or other sources of ignition.

10.3. Possibility of Hazardous Reactions

Hazardous polymerisation will not occur.

10.4. Conditions to Avoid

Keep away from open flames, hot surfaces and sources of ignition. Incompatible materials.

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10.5. Incompatible Materials

Strong acids. Flammable/Combustible materials.

10.6. Hazardous Decomposition Products

Carbon and nitrogen oxides. Oxides of lead. Metal oxides.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information (On Hazard Classes As	S Defined In Reg	ulation (Ec) No 1272/2008
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Likely Routes of Exposure : Eye contact, Dermal, Inhalation (in dust form)

Acute Toxicity (Oral) : Not classified. (Based on available data, the classification criteria are not met)

Acute Toxicity (Dermal) : Not classified (Based on available data, the classification criteria are not met)

Acute Toxicity (Inhalation) : Not classified (Based on available data, the classification criteria are not met)

- · · · · · · · · · · · · · · · · · · ·	
Copper (7440-50-8)	
LC50 Inhalation Rat	> 5,11 mg/l/4h
1,3-Benzenediol, 2,4,6-trinitro-, lead salt (15245	-44-0)
LD50 Dermal Rat	> 2000 mg/kg
LC50 Inhalation Rat	> 5,05 mg/l/4h
ATE CLP (oral)	500,00 mg/kg bodyweight
ATE CLP (dust,mist)	1,50 mg/l/4h
Barium nitrate (10022-31-8)	
LD50 Oral Rat	50 – 300 mg/kg
LC50 Inhalation Rat	> 1,1 mg/l/4h (Species: Wistar)
ATE CLP (oral)	50,00 mg/kg bodyweight
ATE CLP (dust,mist)	1,50 mg/l/4h
Aluminum (7429-90-5)	
LD50 Oral Rat	> 15900 mg/kg
Antimony sulfide (Sb2S3) (1345-04-6)	
LD50 Oral Rat	> 2000 mg/kg
LD50 Dermal Rat	> 2000 mg/kg
LC50 Inhalation Rat	> 5,04 mg/l/4h
ATE CLP (dust,mist)	1,50 mg/l/4h
Lead compounds (Not Applicable)	
ATE CLP (oral)	500,00 mg/kg bodyweight
ATE CLP (dust,mist)	1,50 mg/l/4h
Iron (7439-89-6)	
LD50 Oral Rat	98,6 g/kg
Nickel (7440-02-0)	
LD50 Oral Rat	> 9000 mg/kg
LC50 Inhalation Rat	> 10,2 mg/l (Exposure time: 1 h)
Skin Corrosion/Irritation	: Not classified (Based on available data, the classification criteria are not met)
Eye Damage/Irritation	: Not classified (Based on available data, the classification criteria are not met)
Resniratory or Skin Sensitisation	Not classified (Based on available data, the classification criteria are not met)

Skin Corrosion/Irritation: Not classified (Based on available data, the classification criteria are not met)Eye Damage/Irritation: Not classified (Based on available data, the classification criteria are not met)Respiratory or Skin Sensitisation: Not classified (Based on available data, the classification criteria are not met)Germ Cell Mutagenicity: Not classified (Based on available data, the classification criteria are not met)Carcinogenicity: Not classified. (Based on available data, the classification criteria are not met)

1,3-Benzenediol, 2,4,6-trinitro-, lead salt (15245-44-0)			
National Toxicology Program (NTP) Status Reasonably anticipated to be Human Carcinogen.			
Antimony sulfide (Sb2S3) (1345-04-6)			
IARC Group	3		
Lead compounds (Not Applicable)			
National Toxicology Program (NTP) Status	Reasonably anticipated to be Human Carcinogen.		
Nickel (7440-02-0)			
IARC Group	2B		
National Toxicology Program (NTP) Status	Reasonably anticipated to be Human Carcinogen.		

Reproductive Toxicity : Not classified. (Based on available data, the classification criteria are not met)
Specific Target Organ Toxicity : Not classified (Based on available data, the classification criteria are not met)
(Single Exposure)

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Specific Target Organ Toxicity (Repeated Exposure)

: Not classified (Based on available data, the classification criteria are not met)

Aspiration Hazard

: Not classified (Based on available data, the classification criteria are not met)

: Skin contact with large amounts of dust may cause mechanical irritation.

Symptoms/Injuries After Inhalation Symptoms/Injuries After Skin Contact Symptoms/Injuries After Eye Contact

: Prolonged inhalation of dust may cause respiratory irritation.

: May cause mechanical eye irritation.

Symptoms/Injuries After Ingestion

: Ingestion may cause adverse effects.

Chronic Symptoms

: None expected under normal conditions of use. Lead poisoning can occur through chronic exposure to post-deployment dusts/vapours. Symptoms of lead poisoning include headaches, abdominal pain, memory loss, kidney failure, anemia, change in skin tone or pallor, reproductive problems in men, weakness, pain, or tingling in the extremities.

11.2. Information On Other Hazards

Component	
1,3-Benzenediol, 2,4,6-trinitro-, lead salt (15245-44-0)	This chemical is considered to have endocrine-disrupting properties with respect to animals and humans in the brain, nervous system, bone, cardiovascular system, kidneys, producing changes to development, life span, morphology, growth, Shows an adverse effect in an intact organism or its progeny, which is a change in the morphology, physiology, growth, development, reproduction or life span of an organism, system or (sub)population that results in an impairment of functional capacity, an impairment of the capacity to compensate for additional stress or an increase in susceptibility to other influences as it meets the criteria set out in section A of Regulation (EU) 2017/2100, and/or the criteria set out in Regulation (EU) 2018/605. This conclusion is based on evidence from studies and data obtained from a literature search conducted on this chemical, and shows a link between the effects above and endocrine activity, which is relevant for humans.
Nickel (7440-02-0)	This chemical is considered to have endocrine-disrupting properties with respect to animals and humans in the pituitary gland, thalamus/hypothalamus, producing changes to reproduction as it meets the criteria set out in section A of Regulation (EU) 2017/2100, and/or the criteria set out in Regulation (EU) 2018/605. This conclusion is based on evidence from studies and data obtained from a literature search conducted on this chemical, and shows a link between the effects above and endocrine activity, which is relevant for humans.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Hazardous To The Aquatic Environment, : Not classified (Based on available data, the classification criteria are not met)

Short-Term (Acute)

Hazardous To The Aquatic Environment, : Not classified. (Based on available data, the classification criteria are not met)

Long-Term (Chronic)

1,3-Benzenediol, 2,4,6-trinitro-, lead salt (15245-44-0)		
EC50 - Crustacea [1]	EC50 - Crustacea [1] 7 mg/l	
Barium nitrate (10022-31-8)		
EC50 - Crustacea [1]	9018 mg/l	
Nickel (7440-02-0)		
LC50 - Fish [1]	100 mg/l (Exposure time: 96 h - Species: Brachydanio rerio)	
EC50 - Crustacea [1]	100 mg/l (Exposure time: 48 h - Species: Daphnia magna)	
LC50 - Fish [2]	15,3 mg/l	
EC50 - Crustacea [2]	1 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])	

12.2. Persistence and Degradability

12-Gauge Kinetic Round	
Persistence and Degradability	Not established.
Copper (7440-50-8)	
Persistence and Degradability	Not readily biodegradable.

12.3. Bioaccumulative Potential

12-Gauge Kinetic Round	
Bioaccumulative Potential Bioaccumulation of metals cannot be excluded.	
1,3-Benzenediol, 2,4,6-trinitro-, lead salt (15245-44-0)	
Partition coefficient n-octanol/water (Log Pow) -2,19 (at 20 °C)	

12.4. Mobility in Soil

12-Gauge Kinetic Round	
Ecology - Soil	Leaches if exposed to water.

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12.5. Results of PBT and vPvB Assessment

Component		
1,3-Benzenediol, 2,4,6-trinitro-, lead salt (15245-44-0)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII	
	This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII	

12.6. **Endocrine Disrupting Properties**

Component		
1,3-Benzenediol, 2,4,6-trinitro-, lead salt (15245-44-0)	This chemical is considered to have endocrine-disrupting properties with respect to humans, animals, and non-target organisms, in multiple organs systems, producing changes to morphology, physiology, growth, development, reproduction, or lifespan as it meets the criteria set out in section B of Regulation (EU) 2017/2100, and/or the criteria set out in Regulation (EU) 2018/605. This conclusion is based on evidence from studies and data obtained from a literature search conducted on this chemical, and shows a link between the effects above and endocrine activity, which is relevant for non-target organisms.	
Nickel (7440-02-0)	This chemical is considered to have endocrine-disrupting properties with respect to humans, animals, and non-target organisms, in pituitary gland, thalamus/hypothalamus, producing changes to morphology, physiology, growth, development, reproduction, or lifespan as it meets the criteria set out in section B of Regulation (EU) 2017/2100, and/or the criteria set out in Regulation (EU) 2018/605. This does not exclude the possible inclusion of other organ systems. This conclusion is based on evidence from studies and data obtained from a literature search conducted on this chemical, and shows a link between the effects above and endocrine activity, which is relevant for non-target organisms.	

Other Adverse Effects

Other Adverse Effects : None known.

Other Information : Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. **Waste Treatment Methods**

Regional Legislation (Waste) : Disposal must be done according to official regulations.

Waste Treatment Methods : Explosives should be destroyed by open burning or by burning in an approved

incinerator. Explosives should not be burned in containers.

Sewage Disposal Recommendations

Product/Packaging Disposal

: Do not dispose of waste into sewer. : Dispose of contents/container in accordance with local, regional, national, and

Recommendations international regulations.

: Container may remain hazardous when empty. Continue to observe all precautions. **Additional Information**

Ecology - Waste Materials : Avoid release to the environment.

SECTION 14: TRANSPORT INFORMATION

The shipping description(s) stated herein were prepared in accordance with certain assumptions at the time the SDS was authored, and can vary based on a number of variables that may or may not have been known at the time the SDS was issued. In accordance with ADR / RID / IMDG / IATA / AND. USA PHMSA #: EX2012091360

IMDG	IATA	ADN	RID
ID Number		•	
UN 0012	UN 0012	UN 0012	UN 0012
pping Name			
CARTRIDGES, SMALL	Cartridges, small arms	CARTRIDGES, SMALL	CARTRIDGES, SMALL
ARMS		ARMS	ARMS
ard Class(es)			
1.4S	1.4S	1.4S	1.4S
1.4	1.4	1.4	1.4
Not applicable	Not applicable	Not applicable	Not applicable
Hazards			
Dangerous for the environment : No	Dangerous for the environment : No	Dangerous for the environment : No	Dangerous for the environment : No
	UN 0012 pping Name CARTRIDGES, SMALL ARMS ard Class(es) 1.4S Not applicable Hazards Dangerous for the	UN 0012 UN 0012 Oping Name CARTRIDGES, SMALL ARMS Ord Class(es) 1.4S 1.4S Not applicable Hazards Dangerous for the environment: No UN 0012 UN 0012 In 0012	UN 0012 UN 0012 UN 0012 Oping Name CARTRIDGES, SMALL ARMS Ord Class(es) 1.4S 1.4S Not applicable Not applicable Hazards Dangerous for the environment: No UN 0012 UN 0012 UN 0012 UN 0012 IN 0012 UN 0012 IN 0012 I

Special Precautions For User

No additional information available

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14.7. Maritime Transport in Bulk According to IMO instruments

Not applicable

SECTION 15: REGULATORY INFORMATION

15.1. Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture

15.1.1. EU-Regulations

15.1.1.1. REACH Annex XVII Information

The following restrictions are applicable according to Annex XVII of the REACH Regulation (EC) No 1907/2006:

restrictions are applicable according to Almex XVII of the RESter Regula	11011 (20) 110 1301/2000.
3(b) Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10	Barium nitrate; 1,3-Benzenediol, 2,4,6-trinitro-, lead salt, Antimony sulfide; Nickel
27. Nickel and its compounds	Nickel
28. Substances which are classified as carcinogen category 1A or 1B in Part 3 of Annex VI to Regulation (EC) No 1272/2008 and are listed in Appendix 1 or Appendix 2, respectively.	1,3-Benzenediol, 2,4,6-trinitro-, lead salt
30. Substances which are classified as reproductive toxicant category 1A or 1B in Part 3 of Annex VI to Regulation (EC) No 1272/2008 and are listed in Appendix 5 or Appendix 6, respectively.	1,3-Benzenediol, 2,4,6-trinitro-, lead salt
40. Substances classified as flammable gases category 1 or 2, flammable liquids categories 1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1 or pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008 or not.	Aluminum

15.1.1.2. REACH Candidate List Information

Contains a substance on the REACH candidate list in concentration ≥ 0.1% or with a lower specific limit: Lead styphnate (EC 239-290-0, CAS 15245-44-0)

15.1.1.3. POP (2019/1021) - Persistent Organic Pollutants Information

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

15.1.1.4. PIC Regulation EU (649/2012) - Export and Import of Hazardous Chemicals Information

Substances subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 july 2012 concerning the export and import of hazardous chemicals: Lead compounds (15245-44-0)

15.1.1.5. REACH Annex XIV Information

Contains no REACH Annex XIV substances

15.1.1.6. Substances Depleting the Ozone layer (1005/2009) Information

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

No additional information available

15.1.1.7. EC Inventory Information

Copper (7440-50-8)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)
1,3-Benzenediol, 2,4,6-trinitro-, lead salt (15245-44-0)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)
Barium nitrate (10022-31-8)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)
Aluminum (7429-90-5)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)
Antimony sulfide (Sb2S3) (1345-04-6)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)
Iron (7439-89-6)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)
Nickel (7440-02-0)

15.1.1.8. Other Information

No additional information available

15.1.2. National Regulations

No additional information available

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15.1.3. International Inventory Lists

12-Gauge Kinetic Round

All components of this product are on the TSCA Inventory or are exempt from TSCA

Copper (7440-50-8)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active

Listed on the Canadian DSL (Domestic Substances List)

Listed on the Canadian IDL (Ingredient Disclosure List)

Subject to reporting requirements of United States SARA Section 313

Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)

Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)

Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory

Listed on KECL/KECI (Korean Existing Chemicals Inventory)

Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)

Listed on NZIoC (New Zealand Inventory of Chemicals)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

Listed on the TCSI (Taiwan Chemical Substance Inventory)

Listed on the NCI (Vietnam - National Chemicals Inventory)

1,3-Benzenediol, 2,4,6-trinitro-, lead salt (15245-44-0)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active

Listed on the Canadian DSL (Domestic Substances List)

Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)

Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory

Listed on KECL/KECI (Korean Existing Chemicals Inventory)

Japanese Poisonous and Deleterious Substances Control Law

Japanese Pollutant Release and Transfer Register Law (PRTR Law)

Listed on NZIoC (New Zealand Inventory of Chemicals)

Listed on the Japanese ISHL (Industrial Safety and Health Law)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

Listed on the TCSI (Taiwan Chemical Substance Inventory)

Barium nitrate (10022-31-8)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active

Listed on the Canadian DSL (Domestic Substances List)

Listed on the Canadian IDL (Ingredient Disclosure List)

Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)

Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)

Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory

Listed on KECL/KECI (Korean Existing Chemicals Inventory)

Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)

Japanese Poisonous and Deleterious Substances Control Law

Listed on NZIoC (New Zealand Inventory of Chemicals)

Listed on the Japanese ISHL (Industrial Safety and Health Law)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

Listed on the TCSI (Taiwan Chemical Substance Inventory)

Listed on the NCI (Vietnam - National Chemicals Inventory)

Aluminum (7429-90-5)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active

Listed on the Canadian DSL (Domestic Substances List)

Listed on the Canadian IDL (Ingredient Disclosure List)

Subject to reporting requirements of United States SARA Section 313

Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)

Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)

Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory

Listed on KECL/KECI (Korean Existing Chemicals Inventory)

Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)

Listed on NZIoC (New Zealand Inventory of Chemicals)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

Listed on the TCSI (Taiwan Chemical Substance Inventory)

Listed on the NCI (Vietnam - National Chemicals Inventory)

Antimony sulfide (Sb2S3) (1345-04-6)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active

Listed on the Canadian DSL (Domestic Substances List)

Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)

Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)

Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory

Listed on KECL/KECI (Korean Existing Chemicals Inventory)

Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)

Japanese Pollutant Release and Transfer Register Law (PRTR Law)

Listed on NZIoC (New Zealand Inventory of Chemicals)

Listed on the Japanese ISHL (Industrial Safety and Health Law)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

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Listed on the TCSI (Taiwan Chemical Substance Inventory) Listed on the NCI (Vietnam - National Chemicals Inventory)

Lead compounds (Not Applicable)

Listed on EPA Hazardous Air Pollutant (HAPS)

Japanese Poisonous and Deleterious Substances Control Law

Japanese Pollutant Release and Transfer Register Law (PRTR Law)

Subject to reporting requirements of United States SARA Section 313

Iron (7439-89-6)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active

Listed on the Canadian DSL (Domestic Substances List)

Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)

Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)

Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory

Listed on KECL/KECI (Korean Existing Chemicals Inventory)

Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)

Listed on NZIoC (New Zealand Inventory of Chemicals)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

Listed on the TCSI (Taiwan Chemical Substance Inventory)

Listed on the NCI (Vietnam - National Chemicals Inventory)

Nickel (7440-02-0)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active

Listed on the Canadian DSL (Domestic Substances List)

Listed on the Canadian IDL (Ingredient Disclosure List)

Subject to reporting requirements of United States SARA Section 313

Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)

Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)

Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory

Listed on KECL/KECI (Korean Existing Chemicals Inventory)

Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)

Japanese Pollutant Release and Transfer Register Law (PRTR Law)

Listed on NZIoC (New Zealand Inventory of Chemicals)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

Listed on the TCSI (Taiwan Chemical Substance Inventory)

Listed on the NCI (Vietnam - National Chemicals Inventory)

15.2. Chemical Safety Assessment

No chemical safety assessment has been carried out

SECTION 16: OTHER INFORMATION

Date of Preparation or Latest Revision

: 18/05/2023

Data Sources

Information and data obtained and used in the authoring of this safety data sheet could come from database subscriptions, official government regulatory body websites, product/ingredient manufacturer or supplier specific information, and/or resources that include substance specific data and classifications according to GHS

or their subsequent adoption of GHS.

Other Information : According to Regulation (EC) No. 1907/2006 (REACH) with its amendment

Regulation (EU) 2020/878

Full Text of H- and EUH-statements:

At Official Loft Statements.		
Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3	
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4	
Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4	
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4	
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1	
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1	
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2	
Carc. 1B	Carcinogenicity, Category 1B	
Carc. 2	Carcinogenicity, Category 2	
Expl. 1.4	Explosives, Division 1.4	
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2	
Flam. Sol. 1	Flammable solids, Category 1	
H200	Unstable explosives.	
H204	Fire or projection hazard.	
H228	Flammable solid.	
H261	In contact with water releases flammable gases.	
H272	May intensify fire; oxidiser.	
H301	Toxic if swallowed.	
H302	Harmful if swallowed.	

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H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H350	May cause cancer.
H351	Suspected of causing cancer.
H360Df	May damage the unborn child. Suspected of damaging fertility.
H361f	Suspected of damaging fertility.
H372	Causes damage to organs through prolonged or repeated exposure.
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.
Ox. Sol. 2	Oxidising Solids, Category 2
Repr. 1A	Reproductive toxicity, Category 1A
Repr. 2	Reproductive toxicity, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
STOT RE 1	Specific target organ toxicity — Repeated exposure, Category 1
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2
Unst. Expl.	Explosives, Unstable explosives
Water-react. 2	Substances and Mixtures which, in contact with water, emit flammable gases, Category 2

Classification and Procedure Used to Derive the Classification for Mixtures According to Regulation (EC) 1272/2008 [CLP]:

Exp	pl. 1.4	Expert judgment

Indication of Changes

No additional information available

Abbreviations and Acronyms

ACGIH – American Conference of Governmental Industrial Hygienists ADN – European Agreement Concerning the International Carriage of

Dangerous Goods by Inland Waterways

ADR - European Agreement Concerning the International Carriage of

Dangerous Goods by Road
ATE - Acute Toxicity Estimate
BCF - Bioconcentration Factor
BEI - Biological Exposure Indices (BEI)
BOD - Biochemical Oxygen Demand

CAS No. - Chemical Abstracts Service Number

CLP – Classification, Labeling and Packaging Regulation (EC) No 1272/2008

COD – Chemical Oxygen Demand EC – European Community

EC50 - Median Effective Concentration EEC – European Economic Community

EINECS – European Inventory of Existing Commercial Chemical Substances

EmS-No. (Fire) - IMDG Emergency Schedule Fire EmS-No. (Spillage) - IMDG Emergency Schedule Spillage

EU – European Union

ErC50 - EC50 in Terms of Reduction Growth Rate

GHS – Globally Harmonized System of Classification and Labeling of Chemicals

IARC - International Agency for Research on Cancer IATA - International Air Transport Association IBC Code - International Bulk Chemical Code IMDG - International Maritime Dangerous Goods

IPRV - Ilgalaikio Poveikio Ribinis Dydis

IOELV - Indicative Occupational Exposure Limit Value

LC50 - Median Lethal Concentration

LOAEL - Lowest Observed Adverse Effect Level LOEC - Lowest-Observed-Effect Concentration

Log Koc - Soil Organic Carbon-water Partitioning Coefficient

Log Kow - Octanol/water Partition Coefficient

Log Pow - Ratio of the equilibrium concentration (C) of a dissolved substance in a two-phase system consisting of two largely immiscible solvents, in this case

octanol and water

MAK – Maximum Workplace Concentration/Maximum Permissible

Concentration

 ${\sf MARPOL-International\ Convention\ for\ the\ Prevention\ of\ Pollution}$

NDS - Najwyzsze Dopuszczalne Stezenie

NDSCh - Najwyzsze Dopuszczalne Stezenie Chwilowe NDSP - Najwyzsze Dopuszczalne Stezenie Pulapowe NOAEL - No-Observed Adverse Effect Level NOEC - No-Observed Effect Concentration NRD - Nevirsytinas Ribinis Dydis NTP – National Toxicology Program OEL - Occupational Exposure Limits

PBT - Persistent, Bioaccumulative and Toxic PEL - Permissible Exposure Limit

pH – Potential Hydrogen

REACH – Registration, Evaluation, Authorisation, and Restriction of Chemicals RID – Regulations Concerning the International Carriage of Dangerous Goods by Rail

SADT - Self Accelerating Decomposition Temperature

SDS - Safety Data Sheet

STEL - Short Term Exposure Limit STOT - Specific Target Organ Toxicity

TA-Luft - Technische Anleitung zur Reinhaltung der Luft

TEL TRK – Technical Guidance Concentrations

ThOD – Theoretical Oxygen Demand
TLM - Median Tolerance Limit

TLV - Threshold Limit Value

TPRD - Trumpalaikio Poveikio Ribinis Dydis

TRGS 510 - Technische Regel für Gefahrstoffe 510 - Lagerung von

Gefahrstoffen in ortsbeweglichen Behältern

TRGS 552 – Technische Regeln für Gefahrstoffe - N-Nitrosamine

TRGS 900 - Technische Regel für Gefahrstoffe 900 – Arbeitsplatzgrenzwerte TRGS 903 - Technische Regel für Gefahrstoffe 903 - Biologische Grenzwerte

TSCA - Toxic Substances Control Act TWA - Time Weighted Average VOC – Volatile Organic Compounds

VLA-EC - Valor Límite Ambiental Exposición de Corta Duración

VLA-ED - Valor Límite Ambiental Exposición Diaria

VLE - Valeur Limite D'exposition

VME – Valeur Limite De Moyenne Exposition vPvB - Very Persistent and Very Bioaccumulative

WEL – Workplace Exposure Limit WGK - Wassergefährdungsklasse

Limit Value Legal Basis*

*Includes the below and any related regulations/provisions, and subsequent amendements

EU - 2019/1831 EU in accor. with 98/24/EC - Directive 2019/1831/EU of October 24, 2019 establishing a fifth list of indicative occupational exposure

Greece - PWHSE - Occupational Exposure Limits - Protection of workers' health and safety from exposure to certain chemical substances during the workday,

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limit values pursuant to Council Directive 98/24/EC, and amending Commission Directives 2000/39/EC.

EU - 2019/1243/EU, and 98/24/EC) - Council Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work and amendment Regulation (EU) 2019/1243.

Austria - BGBI. II Nr. 254/2018 - Ordinance on Limit Values for Workplace Substances and on Carcinogens from the Federal Ministry of Economics and Labour, Published in 2003, Appendix 1: Substance List, Published through: Ministry of Economics and Labour of the Republic of Austria amended through the Government Gazette II (BGBL. II) No 119/2004) & BGBI. II No. 242/2006, BGBI. II No. 243/2007, lastly changed through BGBI. I Nr. 51/2011), BGBI. II Nr. 186/2015, BGBI. II Nr. 288/2017 amended by BGBI. II Nr. 254/2018.

Austria - BLV BGBI. II Nr. 258/2017 amended by BGBI. II Nr. 254/2018.

Austria - BLV BGBI. II Nr. 254/2018 - Ordinance on health monitoring at the workplace 2008, published through BGBI. II Nr. 224/2007 by Austria Minister for Labor and Social Affairs, Lastly changed through BGBI. II Nr. 254/2018

Belgium - Royal Decree 21/01/2020 - Royal decree amending title 1 relating to chemical agents in Book VI of the code of well-being at work, with regard to the list of limit values of exposure to chemical agents and title 2 relating to carcinogens, mutagens and reprotoxics of Book VI of the code of well-being at work (1)

Bulgaria - Reg. No. 13/10 -

Regulation No. 13 of December 30, 2003 on the Protection of Workers from Hazards Related to Exposure to Chemical Agents at Work Labor Code, Annex No.1 Limit values of chemical agents in the air of the working environment, and Annex № 2 Biological limit values of chemical agents and their metabolites (bio markers of exposure) or bio markers of effect Amended by: 71/2006, 67/2007, 2/2012, 46/2015, 73/2018, 5/2020), and Regulation No.10 of September 26, 2003 on the Protection of Workers from the Risks Associated with Exposure to Carcinogens and Mutagens at Work Annex No.1 Occupational Exposure Limits, Amended by: 8/2004, 46/2015, 5/2020

Croatia - OG No. 91/2018 - Regulation on the Protection of Workers from Exposure to Hazardous Chemicals at Work, the Limit Values of Exposure and the Biological Limit Values. Official Gazette No. 91 of October 12, 2018

Cyprus - KDP 16/2019 - Government of Cyprus Cabinet of Ministers Regulation 268/2001 - Safety and Health in the Working Environment (Chemical Substances) Article 38, As amended by Regulation 16/2019 and Cabinet of Ministers Regulation 153/2001 - Safety and Health in the Working Environment (Chemical Substances-Carcinogens), as amended by Regulation 493/2004 - Safety and Health in the Working Environment (Chemical Substances - Carcinogens) AND Law 47(I) 2000 - Occupational Health and Safety (Asbestos), as amended by Decree 316/2006.

Czech Republic - Reg. 41/2020 - Regulation 41/2020 amending Regulation 361/2007 of Coll. establishing Occupation Exposure Limits as amended Czech Republic - Decree No. 107/2013 - Decree No. 107/2013 Coll., amending Decree No. 432/2003 Coll., laying down the conditions for the application of the work into categories, limit values for the parameters of biological exposure tests, collection of biological material conditions for the implementation of biological exposure tests and requirements for reporting work with asbestos and biological agents

Denmark - BEK No. 698 of 28/05/2020 - Order on Limit Values for Substances and Materials, The Statutory Order No. 507 of May 17, 2011, Appendix 1 - Limits for air pollution, etc. and Appendix 3 - Biological Exposure Values, Amended by: No. 986 of October 11, 2012, No. 655 of May 31, 2018, No. 1458 December 13, 2019, No. 698 of May 28, 2020

Estonia - Regulation No. 105 - Health and Safety Requirements for the Use of Dangerous Chemicals and Materials Containing Them and Occupational Exposure Limits to Chemical Agents

Government of the Republic, Regulation No. 105 of 20 March 2001, Amended 17 October 2019, and 17 January, 2020.

Finland - HTP-ARVOT 2020 - Concentrations Known to be Hazardous, 654/2020 OEL values 2020 Publications of Ministry of Social Affairs and Health 2020:24 Annexes1. 2 and 3.

France - INRS ED 984 - Occupational Exposure Limit Values to Chemical Agents in France Published 2016 by the INRS National Institute of Research and Safety Health and safety of work, revised, updated by: Decree 2016-344, JORF No 0119. and Decree 2019-1487.

France - Decree 2009-1570 - Decree 2009-1570 of December 15, 2009, relative to the control of chemical risk on workplaces.

Germany - TRGS 900 - Occupational Exposure Limits, Technical Rules for Dangerous Substances, latest amendment March, 2020

Germany - TRGS 903 - Biological Threshold Limits (BGW-Values), Technical Rules for Dangerous Substances, latest amendment March, 2020

Gibraltar - LN. 2018/131 - Factories (Control of Chemical Agents at Work)

(latest amendment 82/2018) and Occupation Exposure Limits - Protection of workers' health and safety from exposure to certain carcinogenic and mutagenic chemical substances (latest amendment 26/2020), and Presidential Decree 212/2006 - Protection of workers that are exposed to asbestos.

Hungary - Decree 05/2020 - 5/2020. (II. 6.) ITM decree on the protection of the health and safety of workers from the risks related to chemical agents Ireland - 2020 COP - 2020 Code of Practice for the Chemical Agents

Regulations, Schedule 1

Italy - Decree 81 - Title IX, Annex XLIII and XXXVIII, Professional Exposure Limits and Annex XXXIX Mandatory Biological Limit Values and Health Monitoring, Article 1, Law 123 of August 3, 2007, Legislative Decree 81 of April 9, 2008, Last amended: January 2020

Italy - IMDFN1 - Ministerial Decree of August 20, 1999 Final Note (1)
Latvia - Reg. No. 325 - Cabinet of Ministers Regulation No. 325 - Labour
Protection Requirements when Coming in Contact with Chemical Substances at
Workplaces, Amended by Cabinet of Ministers Regulation No. 92, 163, 407 and
No. 11.

Lithuania - HN 23:2011 - Lithuanian Hygiene Standard HN 23:2011 Occupational Exposure Limit Values, Amended by Order V-695/A1-272. **Luxembourg - A-N 684** - Grand-Ducal Regulation of 20 July 2018 amending the Grand-Ducal Regulation of 14 November 2016 concerning the protection of the safety and health of employees against the risks associated with chemical agents in the workplace. Official journal of the Grand-Duke of Luxembourg, A-N°684 of 2018

Malta - MOSHAA Ch. 424 - Malta Occupational Health and Safety Authority Act: Chapter 424 as amended by: Legal Notice 353, 53, 198, and 57.

Netherlands- OWCRLV - Occupational Working Conditions Regulation, Limit Values for substances harmful to health, Annex XVIII, Updated from August 1, 2020.

Norway - FOR-2020-04-060695 - Regulations concerning action and limit values for physical and chemical agents in the working environment and classified biological agents, FOR-2011-12-06-1358, Updated by: FOR-2020-04-06-695, FOR-2020-03-23-402, FOR-2018-12-20-2186, FOR-2018-08-21-1255, FOR-2017-12-20-2353.

Poland - Dz. U. 2020 Nr. 61 - Regulation of the Minister of Family, Labor and Social Policy of June 12, 2018 on the Highest Allowable Concentrations and Intensities of Factors Harmful to Health in the Work Environment Dz.U. 2018 Nr. 1286 of June 12, 2018, Annex 1 - List of values of the highest permissible chemical concentrations and dust factors harmful to health in the work environment, amended by: Dz. U. 2020 Nr. 61.

Portugal - Portuguese Norm NP 1796:2014 - Occupational exposure limits and biological exposure indices to chemical agents. Table 1 - Occupational exposure limits and biological exposure indices to chemical agents (OELs), Law Decree 35/2020.

Romania - Gov. Dec. No 1.218 - Governmental Decision No. 1.218 from 06/09/2006 on the minimum health and safety requirements for protection of workers from the risks related to exposure to chemical agents, Annex No. 1 Mandatory National Occupational Exposure Limit Values for Chemical Agents. Amended by Decision no. 157, 584, 359, and 1.

Slovakia - Gov. Decree 33/2018 - Government Decree of Slovak Republic 33/2018 on January 17, 2018 amending Government Decree of Slovak Republic 355/2006 about protection of health of employees when working with chemical agents

Slovenia - No. 79/19 - Regulation for protection of workers against risks related to carcinogenic or mutagenic substances exposure. Annex III - Classification and binding levels of carcinogenic or mutagenic substances for occupational exposure. The Official Journal of the Republic of Slovenia, No. 101/2005. Amended by 38/15, 79/19. Regulation for protection of workers against risks related to exposure to chemical substances at the workplace. Republic of Slovenia, No. 100/2001. Annex I - List of Binding Occupational Exposure Limit Values. Amended by 39/05, 53/07, 102/10, 38/15, 78/18, 78/19 Spain - AFS 2018:1 - NATIONAL INSTITUTE FOR HEALTH AND SAFETY AT WORK. Occupational exposure limits for chemical agents in Spain. Tables 1 and 3. Latest edition Feb. 2019

Sweden - AFS 2018:1 - Statute Book of the Swedish Work Environment Authority, AFS 2018:1

The Swedish Work Environment Authority's Ordinance and General Guidance on Hygienic Limit Values

Switzerland - OLVSNAIF - Occupational Limit Values 2020 Swiss National Accident Insurance Fund. List of Biological Limit Values (BAT-Werte) and List of MAK Values.

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Regulations 2003 LN. 2003/035, amended by LN. 2008/035, LN. 2008/050, LN. 2012/021, LN. 2015/143, LN. 2018/181. EU GHS SDS (2020/878)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

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