FIOCCHI MUNIZIONI Cartridges

Article Technical Sheet

Date of issue: 01/01/2019

Version: 7.0

SECTION 1: Identification of the article and of the company/undertaking

1.1. Product identifier

Product form : Article

Product name : Cartridges Fiocchi Munizioni

1.2. Relevant identified uses of the article and uses advised against

1.2.1. Relevant identified uses

Use of the article : Cartridges for hunting and shooting

1.2.2. Uses advised against

Tampering with and disassembling the cartridge is forbidden

1.3. Details of the supplier of the safety data sheet

Fiocchi Munizioni S.p.A.
via Santa Barbara 4
23900 Lecco - Italy

1.4. Emergency telephone number

Emergency number : +390516063411 24 hours

SECTION 2: Hazards identification

2.1. Classification of the article

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Expl. 1.4 H204

Full text of H-phrases: see section 16

Adverse physicochemical, human health and environmental effects

See the indications from SECTION 9 to 12.

2.2. Label elements

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

According to Art. 23 of Regulation (EC) No. 1272/2008 [CLP], regarding derogations from labelling requirements, «Explosives, as referred to in section 2.1, placed on the market with a view to obtaining an explosive or pyrotechnic effect shall be labelled and packaged in accordance with the requirements for explosives only».

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

2.3. Other hazards

According to the European Court of Justice C 106-14, cartridges are considered complex products as they are comprised of various manufactured items meeting the criteria set forth in article 3, par. 3 of the REACH Regulation, and consist of the following:

- Propellant: propelling powder;
- Ignition: explosive mixture;
- Empty shell casing: item;
- Bullet: item (pellets, slug or buckshot with or without lead);
- Wads: item.

Do not ingest.

The environmental impact of the item has not been tested

This item, which is absolutely forbidden to be tampered with or disassembled, contains dangerous substances that are not released under normal or reasonably foreseeable conditions of use, as they are completely encapsulated.

Heat, sparks, and flames as well as other sources, such as static electricity or electromechanical equipment, could cause its deflagration.

The cartridges' packaging has been designed in such a way that all the dangerous effects resulting from accidental ignition are confined inside the package, provided that the package is intact. For this reason it is absolutely forbidden to store them in non-original and/or damaged packaging.

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixture

Mixture: propellant powder
Mixture contained: explosive mixture.

Name	Product identifier	%	Classification according to Directive 67/548/EEC
Nitrocellulose	(CAS number) 9004-70-0 (EC number) 618-392-2 (EU Index Number) 603-037-00-6	>= 60	Expl. 1.1, H201
glycerol trinitrate, nitroglycerine	(CAS number) 55-63-0 (EC number) 200-240-8 (EU Index Number) 603-034-00-X	0 - 40	Unst. Expl, H200 Acute Tox. 2 (Inalatoria), H330 Acute Tox. 1 (Cutanea), H310 Acute Tox. 2 (Orale), H300 STOT RE 2, H373 Aquatic Chronic 2, H411
diphenylamine	(CAS number) 122-39-4 (EC number) 204-539-4 (EU Index Number) 612-026-00-5	0.6 - 1	Acute Tox. 3 (Inalatoria), H331 Acute Tox. 3 (Cutanea), H311 Acute Tox. 3 (Orale), H301 STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

As already mentioned in point 2.3, the cartridge is a complex product consisting of other items which then contain mixtures. The various items will be indicated below, specifying the constituent mixtures and, both qualitatively and quantitatively, the hazardous substances that they contain.

Item: ignition device.
Mixture contained: explosive mixture.

Name	Product identifier	Percentage	Classification according to Regulation (EC) no. 1272/2008 [CLP]
Lead styphnate	(CAS number) 15245-44-0 (EU Index Number) 239-290-0	27% ÷ 37%	Unst. Expl, H200 Acute Tox. 4, H302 Acute Tox. 4, H332 Repr. 1A, H360Df STOT RE 2, H373 Aquatic Chronic 1, H410 Aquatic Acute 1, H400
Barium nitrate	(CAS number) 10022-31-8 (EU Index Number) 233-020-5	39% ÷ 51%	Ox. Sol. 2, H272 Acute Tox. 4, H302 Acute Tox. 4, H332 Eye Irrit. 2, H319
Antimony trisulfide	(CAS number) 1345-04-6 (EU Index Number) 215-713-4	13% ÷ 17%	Carc. 2, H351 Aquatic Chronic 3, H412 Repr. 1A, H360FD
Tetrazene	(CAS number) 109-27-3 (EU Index Number) 203-659-4	3% ÷ 5%	Unst. Expl, H200
Pentaerythritol tetranitrate	(CAS number) 78-11-5 (EU Index Number) 201-084-3	3% ÷ 5%	Unst. Expl, H200

Item: lead balls and lead shot
Mixture contained: lead-based mixture (not applicable for cartridge models loaded with lead-free balls and shot, e.g. steel, tungsten, tin, etc.).

Name	Product identifier	Percentage	Classification according to Regulation (EC) no. 1272/2008 [CLP]
Lead	(CAS number) 7439-92-1 (EU Index Number) 231-100-4	> 96.5%	Repr. 1A, H360FD Lact., H362 STOT RE1, H372 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Antimony[(1)]	(CAS number) 7440-36-0 (EU Index Number) 231-146-5	< 5%	
Arsenic	(CAS number) 7440-36-0 (EU Index Number) 231-146-5	< 0.5%	Acute Tox. 3*; H301 (swallowed) Acute Tox. 3*; H331 (inhaled) Aquatic Acute 1; H400 Aquatic Chronic 1; H410

(1) Antimony powder is not classified as defined in Annex VI to Regulation (EC) no. 1272/2008 [CLP].
* Minimum classification

SECTION 4: First aid measures

4.1. Description of first aid measures

General notes : **This item, which is absolutely forbidden to be tampered with or disassembled, contains dangerous substances that are not released under normal or reasonably foreseeable conditions of use, as they are completely encapsulated.**
The first aid measures refer to unlikely accidental contact with the mixtures present inside the item or with the fumes that are generated after a shot is fired. When significant levels of contamination occur, immediately remove the cause of the exposure; make sure that the people involved are in a protected, well-ventilated and warm area. Request medical assistance.

First-aid measures after inhalation : In case of inhalation of the product, have those affected breathe fresh air.
Inhalation of fumes generated by the combustion / ignition of the powders may cause irritation of the respiratory tract and nasal passages, coughing, and difficulty in breathing. If such symptoms occur, immediately move the individual away from the place of exposure to fresh air. If the exposed person exhibits difficulty in breathing, administer oxygen. If breathing stops, perform artificial respiration, keep the affected person warm and calm.
There may be a risk of pulmonary edema as a delayed effect of this exposure. Request medical assistance. If you experience symptoms of carbon monoxide (CO) and/or nitrogen oxides (NOx) poisoning, such as nausea, fatigue, confusion, or fainting, call a doctor and stay under medical supervision for at least 48 hours.

First-aid measures after skin contact : Wash the affected part thoroughly with soap and water. If necessary, immediately remove contaminated clothing and/or footwear.

First-aid measures after eye contact : Wash the eyes gently with plenty of cold water for at least 15 minutes and consult a specialist.

First-aid measures after ingestion : do not induce vomiting and contact a doctor.

First aid measures following burns : immediately cool down the affected area with cool water for as long as possible. Do not remove clothing attached to the skin. Contact a specialized burn treatment center.

First aid measures for injuries caused by accidental deflagration : immediately take the injured person to the nearest emergency room.

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

General notes : **This item, which is absolutely forbidden to be tampered with or disassembled, contains dangerous substances that are not released under normal or reasonably foreseeable conditions of use, as they are completely encapsulated.** The main symptoms, both acute and delayed, are related to prolonged exposure to some of the substances that comprise the mixtures or to the fumes from their explosion.

It is unlikely that the amount of particles anyone could be exposed to after firing a cartridge or after a normal shooting session could be sufficient to cause any of these effects.

Symptoms in case of inhalation : Inhalation of powder may cause irritation of the respiratory tract. Exposure to deflagration vapors can cause nausea, fatigue, confusion, and fainting. Exposure to these vapors may also cause irritation of the respiratory tract, bronchitis, bronchopneumonia, and acute pulmonary edema and death.

Symptoms in case of contact with the skin : possible irritation after contact with the product.

Symptoms in case of contact with the eyes : May cause irritation

Lead and its alloys: the ingestion of large quantities of lead can cause abdominal pain, constipation, cramps, nausea, and/or vomiting. Chronic exposure to lead can cause kidney damage, anemia, fertility problems, damage in the early stages of embryonic development, damage to breast-fed children, permanent damage to the nervous system in humans, and impairment of cognitive function.

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

It is advisable to consult a doctor in any of the cases listed in SECTION 4.1.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	:	Water, plenty deluge water spray. Extinguishing powder. Carbon dioxide (CO_2).
Unsuitable extinguishing media	:	No additional information available

5.2. Special hazards arising from the substance or mixture

Fire hazard	:	Beware of reignition. Decomposition products may be a hazard to health. Do not breathe fumes. Fight fire with normal precautions from a reasonable distance.
Explosion hazard	:	Articles present a slight risk of explosion when exposed to heat or flame or in case of fire. Fire or projection hazard.
Hazardous decomposition products in case of fire	:	Carbon oxides (CO, CO_2). Nitrogen oxides. Carbon dust. Lead, antimony and barium vapours.

5.3. Advice for firefighters

Firefighting instructions	:	Evacuate employees to a safe area away from the fumes. Fight fire remotely due to the risk of projection. In case of fire, toxic and irritating fumes and vapors containing LEAD may be generated.
Protective equipment for firefighters	:	Use self-contained breathing apparatus and chemically protective clothing.
Other information	:	Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment	:	No additional information available.
Emergency procedures	:	Evacuate area. Immediately contact emergency personnel.

6.1.2. For emergency responders

Protective equipment	:	In case of fire or inadequate ventilation wear self-contained breathing apparatus. Wear suitable protective clothing, gloves and eye/face protection.
Emergency procedures	:	Evacuate and limit access. Eliminate all ignition sources if safe to do so.

6.2. Environmental precautions

Do not allow the item to move away from the area of the fire or into drains or waterways; if this should occur, inform the responsible authorities. Do not discharge into drains or into the environment.

6.3. Methods and material for containment and cleaning up

For containment	:	Before intervening, humidify the product to reduce the risk of fire, taking care not to involve the wastewater pipes. Block the spill in the absence of danger.
Methods for cleaning up	:	Eliminate all sources of ignition, avoid sparks, flames and do not smoke in risk area. Collect the product manually with sparkproof tools (avoid electrical equipment) and place it in properly labeled containers complying with the requirements of SECTION 14. For disposal, follow the instructions in SECTION 13 below. In case of particular difficulties, contact the Technical Support Service of Fiocchi Munizioni S.p.A.

6.4. Reference to other sections

Concerning personal protective equipment to use, see section 8. For disposal of residues refer to section 13: Disposal considerations.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed	:	Slight risk of explosion under conditions of heat, confinement, contamination or severe shock.

Precautions for safe handling	:	Check that the cartridges are in good condition and intact before placing them in the firearm. Do not use in guns with damask or twisted barrels or in chambers shorter than shell length. Make sure that the arms are in good condition and they can use modern ammunition. **Before loading, make sure that the barrel of the firearm is not obstructed.** Do not use a cartridge with a caliber that is smaller than that of the barrel: it could become blocked after the chamber thus creating a dangerous obstruction. **Keep out of reach of children.** Do not eat or drink on the premises where the product is used. Avoid contact with incompatible materials; see SECTION 10. Limit any handling of damaged products to decontamination operations as described in SECTION 6.3. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not pressurize, cut, weld, braze solder, drill, grind, or expose the cartridges to flames, sparks, heat, or other potential ignition sources. Prevent the build-up of electrostatic charge.
Hygiene measures	:	Do not eat, drink or smoke when using this product. Do not eat, drink or smoke in areas where product is used. Always wash hands after handling this product, and once again before leaving the workplace.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures	:	Clean the storage area and keep the product away from other flammable materials. Do not exceed the storage capacities prescribed for each storage area. Remove any defective, altered, or incomplete packaging. Do not fill or empty the packaged product in the storage area. Stack the packaged product in a stable manner. To avoid fire or explosion, dissipate static electricity during transfer by earthing and bonding containers and equipment before transferring material.
Storage conditions	:	Store in tightly closed, properly dry warehouse away from heat, sparks, open flame. Keep only in the original approved packaging prescribed in SECTION 14 below, within the limits of the maximum permissible load indicated on it. Avoid the build-up of electrostatic charge. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not exceed the stacking height required by current regulations, and in any case do not exceed a height of 3 m above the floor when stacking the product.
Incompatible products	:	Flammable products. Strong bases. Strong acids.
Storage temperature	:	Recommended standard temperature condition from 15 to 25 °C, temperature max. 40 °C ca. The relative humidity must be maintained possibly at 62% ± 5%.
Heat and ignition sources	:	Remove all sources of ignition. Store away from direct sunlight or other heat sources. These can cause flammability/slight explosion projection hazards.

7.3. Specific end use(s)

See the shooting instruction, safe information and safe prescription on the box.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

The applicable Occupational Exposure Limits (OEL), Derived No-Effect Levels (DNEL), Predicted No-Effect Concentrations (PNEC) are not available.

Occupational exposure limit values: not defined by Italian law. Hazardous components of the mixture and the propellant:

Hazardous components	**CAS no.**	**TLV – TWA (8 hours)**
Lead	7439-92-1	0.05 mg/m3
Antimony	7440-36-0	0.5 mg/m3
Arsenic	7440-38-2	0.01 mg/m3
Diphenylamine	122-39-4	10 mg/m3
Nitrocellulose (containing N > 12.6%)	9004-70-0	Not detected
Nitroglycerin	55-63-0	(acute) 0.46 mg/m3
Antimony sulphide	1345-04-6	Not detected
Barium nitrate	10022-31-8	Not detected
Lead styphnate	15245-44-0	Not detected
Tetrazene	109-27-3	Not detected
pentaerythritol tetranitrate	78-11-5	Not detected

Exposure limit values from "ACGIH American Conference of Governmental Industrial Hygienists" of 2014

8.2. Exposure controls

General information	:	During shooting sessions it is advisable to always ventilate the premises, especially if significant amounts of fumes are generated.
Hand protection	:	Wear suitable gloves
Eye protection	:	Safety glasses
Hearing protection	:	Use earmuffs during shooting sessions
Environmental exposure controls	:	Avoid discharge to the environment

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Solid
Colour	:	Not applicable
Odour	:	Not applicable
Odour threshold	:	Not applicable
pH	:	Not applicable
Relative evaporation rate (butyl acetate=1)	:	Not applicable
Melting point	:	Not applicable
Freezing point	:	Not applicable
Boiling point	:	Not applicable
Flash point	:	Not applicable
Auto-ignition temperature	:	> 130 °C
Decomposition temperature	:	Not applicable
Flammability (solid, gas)	:	Not applicable
Vapour pressure	:	Not applicable
Relative vapour density at 20 °C	:	Not applicable
Relative density	:	Not applicable
Density	:	Not applicable
Solubility	:	Not applicable
Log Pow	:	Not applicable
Viscosity, kinematic	:	Not applicable
Viscosity, dynamic	:	Not applicable
Explosive properties	:	Explosive
Oxidising properties	:	No data available
Explosive limits	:	Not applicable

9.2. Other information

Product in agreement with CIP safety normative prescriptions.

SECTION 10: Stability and reactivity

10.1. Reactivity

The mixtures contained in the complex item consist of substances with high reactivity to external sources of ignition.

10.2. Chemical stability

Stable under recommended storage and handling conditions.

10.3. Possibility of hazardous reactions

If subjected to strong mechanical stimuli (shocks), thermal stimuli, and/or electrical stimuli, the cartridge may explode, releasing large amounts of heat, gas, and fumes containing hazardous decomposition products.

10.4. Conditions to avoid

Avoid shock and friction. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Avoid the build-up of electrostatic charge.

10.5. Incompatible materials

Flammable products, strong acids, strong bases, flammable materials, strong oxidants.

10.6. Hazardous decomposition products

Carbon oxides (CO, CO_2). Nitrogen oxides. Carbon dust. Lead, antimony, barium and (SO2) sulphur dioxide vapours.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

This item, which is absolutely forbidden to be tampered with or disassembled, contains dangerous mixtures that are not released under normal or reasonably foreseeable conditions of use, as they are completely encapsulated.

A small amount of inhalable particles may be generated when the cartridge is fired.

SUBSTANCES

The physical nature of the product makes any kind of absorption unlikely; however, during the shot a small amount of fumes and gases may be generated that can damage your health.

MIXTURES

The physical nature of the product makes any kind of absorption unlikely; however, during the shot a small amount of fumes and gases may be generated that can damage your health.

INFORMATION ON LIKELY EXPOSURE ROUTES

During firing, especially in a closed, inadequately ventilated environment, it is possible to absorb fumes and gases through the respiratory system, gun shot residue can be found on the hands, and gun shot residue can even reach the eyes, if they are not adequately protected. In the event of an accident, all parts of the body that are not adequately protected are exposed.

SYMPTOMS RELATED TO PHYSICAL, CHEMICAL, AND TOXICOLOGICAL CHARACTERISTICS

Under normal operating conditions, with the adoption of appropriate Personal Protective Equipment (PPE), and with proper ventilation during firing even in a closed environment, there are currently no reports of any symptoms to the shooter.

IMMEDIATE, DELAYED, AND CHRONIC EFFECTS RESULTING FROM SHORT- AND LONG-TERM EXPOSURE

Under normal operating conditions, with the adoption of appropriate Personal Protective Equipment (PPE), and with proper ventilation during firing even in a closed environment, there are currently no reports of any effects on the shooter.

SECTION 12: Ecological information

12.1. Toxicity

No additional information available

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

Lead released into the environment during the degradation process could, in some cases, migrate to the ground (not applicable for cartridge models loaded with lead-free balls and shot, e.g. steel, tungsten, tin, etc.).

12.5. Results of PBT and vPvB assessment

Component	
lead 2,4,6-trinitro-m-phenylene dioxide, lead 2,4,6-trinitroresorcinoxide, lead styphnate (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. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste) : The user is responsible for returning unused items (expired or damaged), empty containers recovered after use, and packaging to a specialized facility, in compliance with all local laws and regulations and all national regulations concerning waste consisting of hazardous substances.
If the packaging is in perfect condition and properly stored, it may be reused to pack an identical product. Otherwise, handle it in the same manner as waste or residue.
In case of difficulty, contact the Technical Support Service of Fiocchi Munizioni S.p.A.

Waste treatment methods	:	The product must be collected for disposal in accordance with SECTION 6 and stored in a place under safe custody as specified in SECTION 7. Consult the appropriate local waste disposal expert about waste disposal. Dispose as hazardous waste. Disposal through controlled incineration exclusively in sites authorized for the disposal of explosives. Do not mix with other incompatible waste products; see SECTION 10. European Waste Catalog: 16 04 01* - waste ammunition.
Ecology - waste materials	:	Avoid release to the environment. Do not allow into drains or water courses.

SECTION 14: Transport information

In accordance with ADR / RID / ADNR / IMDG / ICAO / IATA

14.1. UN number

UN-No. (all modes)	:	0012

14.2. UN proper shipping name

Proper Shipping Name (All modes)	:	CARTRIDGES, SMALL ARMS
Transport document description /ADR)	:	UN 0012 CARTRIDGES, SMALL ARMS, 1.4S (E)

14.3. Transport hazard class(es)

		All modes	**LQ (LIMITED QUANTITY)** not admitted to IATA air transport
Transport hazard class(es)	:	1.4S	
Danger labels	:	1.4S	





14.4. Packing group

Packing group (All modes)	:	Not applicable

14.5. Environmental hazards

Dangerous for the environment	:	No
Marine pollutant	:	No
Other information	:	No supplementary information available

14.6. Special precautions for user

14.6.1. Overland transport

Classification code (ADR)	:	1.4S - LQ
Special provisions (ADR)	:	364
Limited quantities (ADR)	:	5 kg
Excepted quantities (ADR)	:	E0
Packing instructions (ADR)	:	P130
Mixed packing provisions (ADR)	:	MP23, MP24
Transport category (ADR)	:	4
Tunnel restriction code (ADR)	:	E

14.6.2. Transport by sea

Classification code (IMDG)	:	1.4S - LQ
Special provisions (IMDG)	:	364
Limited quantities (IMDG)	:	5 kg
Excepted quantities (IMDG)	:	E0
Packing instructions (IMDG)	:	P130
EmS-No. (Fire)	:	F-B
EmS-No. (Spillage)	:	S-X
Stowage category (IMDG)	:	01
Stowage and segregation (IMDG)	:	Protected from sources of heat
Properties and observations (IMDG)	:	See glossary of terms in appendix B.
MFAG-No	:	114

14.6.3. Air transport

Transport regulations (IATA) : Subject to the provisions

14.6.4. Inland waterway transport

Transport regulations (ADN) : Subject to same ADR provisions

14.6.5. Rail transport

Classification code (RID) : 1.4S - LQ
Limited quantities (RID) : 5 kg
Packing instructions (RID) : P130
Transport category (RID) : 4

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

The product is subject to legislative restrictions for the production, handling, and storage of explosives that the user must know and apply.

15.1.1. EU-Regulations

Contains REACH Candidate List substance(s): Lead Styphnate (EC 239-290-0, CAS 15245-44-0)

Contains substances included on the REACH Candidate List: Lead (EC 231-100-4, CAS 7439-92-1) (not applicable for cartridge models loaded with lead-free balls and shot, e.g. steel, tungsten, tin, etc.).

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

For the following substances of this mixture a chemical safety assessment has been carried out: glycerol trinitrate/nitroglycerine, lead styphnate.

Not applicable for cartridge models loaded with single base powders..

SECTION 16: Other information

Other information : 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. It is the user's responsibility to take the mentioned precautionary measures and to ensure that this information is complete and sufficient for the use of this product.

Full text of R-, H- and EUH-statements:

Eye Irrit. 2	Eye irritation
Acute Tox. 1 (Dermal)	Acute toxicity (dermal) Category 1
Acute Tox. 2 (Inhalation)	Acute toxicity (inhalation) Category 2
Acute Tox. 2 (Oral)	Acute toxicity (oral), Category 2
Acute Tox. 3 (Inhalation)	Acute toxicity in case of inhalation, Category 3
Acute Tox. 3 (Dermal)	Acute toxicity (dermal) Category 3
Acute Tox. 3 (Oral)	Acute toxicity (orally), Category 3
Acute Tox. 4 (Inhalation)	Acute toxicity (inhalation) 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
Aquatic Chronic 3	Hazardous to the aquatic environment — Chronic Hazard, Category 3
Unst. Expl	Unstable explosives
Expl. 1.1	Explosives, Division 1.1
Expl. 1.4	Explosives, Division 1.4
Lact.	Reproductive toxicity
Ox. Sol. 2	Oxidizing solid, Category 2
Repr. 1A	Reproductive toxicity, Category 1A
STOT RE 1	Specific target organ toxicity - repeated exposure, Category 1
STOT RE 2	Specific target organ toxicity (repeated exposure) Category 2
Carc. 2	Carcinogenicity, Category 2

H200	Specific target organ toxicity (repeated exposure) Category 2
H201	Explosive; mass explosion hazard
H204	Fire or projection hazard
H272	May intensify fire; oxidizer.
H300	Fatal if swallowed
H301	Toxic if ingested
H302	Harmful if swallowed
H310	Fatal in contact with skin
H311	Toxic in contact with skin
H319	Causes serious eye irritation.
H331	Toxic if inhaled
H330	Fatal if inhaled
H332	Harmful if inhaled
H351	Suspected of causing cancer
H360FD	May damage fertility. May cause harm to the unborn child.
H360Df	May damage the unborn child. Suspected of damaging fertility
H362	May cause harm to breast-fed children.
H372	Causes damage to the central nervous system, blood, and kidneys 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
H412	Harmful to aquatic life with long lasting effects

SDS EU (REACH Annex II)
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