SAFETY DATA SHEET

according to Regulation (EC) No 1907/2006 (REACH) as amended

Lead(II) nitrate

Creation date 02nd September 2019 Revision date

13th November 2024 Version 5.0

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

Product identifier Lead(II) nitrate

Substance / mixture substance Chemical name Lead nitrate CAS number 10099-74-8 Index number 082-001-00-6 EC (EINECS) number 233-245-9

Registration number 01-2119492475-28-xxxx

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

Substance's intended use

Chemical production, analytical chemistry, laboratory synthesis, industrial applications.

Substance uses advised against

The product should not be used in ways other than those referred in Section 1.

1.3. Details of the supplier of the safety data sheet

Identification number (CRN)

Supplier

Name or trade name Ing. Petr Švec - PENTA s.r.o. Address Radiová 1122/1, Praha 10, 102 00

> Czech Republic 02096013 CZ02096013 +420 226 060 681

VAT Reg No Phone E-mail info@pentachemicals.eu Web address www.pentachemicals.eu

Competent person responsible for the safety data sheet

Name Ing. Petr Švec - PENTA s.r.o. E-mail info@pentachemicals.eu

1.4. **Emergency telephone number**

European emergency number: 112 112

SECTION 2: Hazards identification

Classification of the substance or mixture

Classification of the substance in accordance with Regulation (EC) No 1272/2008

The substance is classified as dangerous.

Ox. Liq. 2, H272

Acute Tox. 4, H302+H332

Skin Sens. 1, H317 Eye Dam. 1, H318

Repr. 1A, H360Df STOT RE 1, H372

Aquatic Acute 1, H400 (multiplying factor = 1 000 000)

Aquatic Chronic 1, H410

Most serious adverse physico-chemical effects

May intensify fire; oxidiser.

Most serious adverse effects on human health and the environment

Causes serious eye damage. May cause an allergic skin reaction. May damage the unborn child. Suspected of damaging fertility. Causes damage to organs through prolonged or repeated exposure. Harmful if swallowed or if inhaled. Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.



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2.2. Label elements

Hazard pictogram











Signal word

Danger

Dangerous substance

Lead nitrate

(Index: 082-001-00-6; CAS: 10099-74-8)

Hazard statements

H272 May intensify fire; oxidiser.
H302+H332 Harmful if swallowed or if inhaled.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.

H360Df May damage the unborn child. Suspected of damaging fertility.
H372 Causes damage to organs through prolonged or repeated exposure.

H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements

P201 Obtain special instructions before use.
P273 Avoid release to the environment.

P280 Wear protective gloves.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact

lenses, if present and easy to do. Continue rinsing.

P308+P313 IF exposed or concerned: Get medical advice/attention.

Supplemental information

Restricted to professional users.

2.3. Other hazards

The substance does not have endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605. Substance does not meet the criteria for PBT or vPvB in accordance with Annex XIII of Regulation (EC) No. 1907/2006 (REACH) as amended. Does not contain any PMT or vPvM components. Dust may form explosive mixture with air.



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SECTION 3: Composition/information on ingredients

3.1. Substances

Chemical characterization

The substance specified below.

Identification numbers	Substance name	Content in % weight	Classification according to Regulation (EC) No 1272/2008	Note
	substance main component			
Index: 082-001-00-6 CAS: 10099-74-8 EC: 233-245-9 Registration number: 01-2119492475-28- xxxx	Lead nitrate	>99	Ox. Liq. 2, H272 Acute Tox. 4, H302+H332 Skin Sens. 1, H317 Eye Dam. 1, H318 Repr. 1A, H360Df STOT RE 1, H372 (central nervous system, immune system, blood, kidneys) Aquatic Acute 1, H400 (M=1 000 000) Aquatic Chronic 1, H410 (M=1) Specific concentration limit: Repr. 2, H361f: $C \ge 2.5 \%$ STOT RE 2, H373: $C \ge 0.5 \%$	1, 2, 3, 4

Notes

- 1 Note A: Without prejudice to Article 17(2), the name of the substance must appear on the label in the form of one of the designations given in Part 3. In Part 3, use is sometimes made of a general description such as '... compounds' or '... salts'. In this case, the supplier is required to state on the label the correct name, due account being taken of section 1.1.1.4.
- Note 1: The concentration stated or, in the absence of such concentrations, the generic concentrations set out in this Regulation are the percentages by weight of the metallic element calculated with reference to the total weight of the mixture.
- 3 Substance of very high concern SVHC.
- 4 The use of the substance is restricted by Annex XVII of REACH Regulation

Full text of all classifications and hazard statements is given in the section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

Take care of your own safety. If any health problems are manifested or if in doubt, inform a doctor and show him information from this safety data sheet. If unconscious, put the person in the stabilized (recovery) position on his side with his head slightly bent backwards and make sure that airways are free; never induce vomiting. If the person vomits by himself, make sure that the vomit is not inhaled. In life threatening conditions first of all provide resuscitation of the affected person and ensure medical assistance. Respiratory arrest - provide artificial respiration immediately. Cardiac arrest - provide indirect cardiac massage immediately.

If inhaled

Terminate the exposure immediately; move the affected person to fresh air. Protect the person against growing cold. Provide medical treatment if irritation, dyspnoea or other symptoms persist.

If on skin

Remove contaminated clothes. Wash the affected area with plenty of water, lukewarm if possible. Soap, soap solution or shampoo should be used if there is no skin injury. Provide medical treatment if skin irritation persists.



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If in eyes

Do not rub your eyes – it could lead to mechanical damage of the cornea. Rinse eyes immediately with a flow of running water, open the eyelids (also using force if needed); remove contact lenses immediately if worn by the affected person. No neutralization should be performed in any case! Rinsing should be continued for 10-30 minutes from the inner to the outer eye corner to make sure that the other eye is not involved. Depending on the situation, call medical rescue service or ensure medical treatment as promptly as possible. Everyone must be referred for treatment even if affected only a little.

If swallowed

Rinse out the mouth with clean water. Provide medical treatment. For persons with no symptoms, call the Toxicological Information Centre to decide about the need of medical treatment; provide information about the substances or composition of the product from the original packaging or the Safety Data Sheet of the product.

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

If inhaled

Inhaling dust can cause corrosion of the breathing system. Cough, headache.

If on skin

May cause an allergic skin reaction.

If in eyes

Causes serious eye damage.

If swallowed

Corrosion of the digestion system can occur.

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

Symptomatic treatment.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Alcohol-resistant foam, carbon dioxide, powder, water spray jet, water mist.

Unsuitable extinguishing media

Water - full iet.

5.2. Special hazards arising from the substance or mixture

In the event of fire, carbon monoxide, carbon dioxide and other toxic gases may arise. Inhalation of hazardous degradation (pyrolysis) products may cause serious health damage.

5.3. Advice for firefighters

Self-Contained Breathing Apparatus (SCBA) with a chemical protection suit only where personal (close) contact is likely. Use a self-contained breathing apparatus and full-body protective clothing. Do not allow run-off of contaminated fire extinguishing material to enter drains or surface and ground water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Provide sufficient ventilation. May intensify fire; oxidiser. The substance is flammable. Remove all ignition sources. Use personal protective equipment for work. Follow the instructions in the Sections 7 and 8. Do not inhale dust. Prevent contact with skin and eyes.

6.2. Environmental precautions

Prevent contamination of the soil and entering surface or ground water. Do not allow to enter drains.

6.3. Methods and material for containment and cleaning up

Place the product mechanically in an appropriate manner. Dispose of the collected material according to the instructions in the section 13.

6.4. Reference to other sections

See the Section 7, 8 and 13.



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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Prevent formation of gases and vapours in concentrations exceeding the occupational exposure limits. The product should be used only in the areas where it is not in contact with open fire and other ignition sources. Use of antistatic clothes and footwear is recommended. Do not inhale dust. Prevent contact with skin and eyes. No smoking. Contaminated work clothing should not be allowed out of the workplace. Obtain special instructions before use. Wash hands and exposed parts of the body thoroughly after handling. Do not eat, drink or smoke when using this product. Do not handle until all safety precautions have been read and understood. Use only outdoors or in a well-ventilated area. Take any precaution to avoid mixing with combustibles. Use personal protective equipment as per Section 8. Observe valid legal regulations on safety and health protection. Avoid release to the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store in tightly closed containers in cold, dry and well ventilated areas designated for this purpose. Do not expose to sunlight. Store locked up. Keep container tightly closed.

7.3. Specific end use(s)

not available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

none

8.2. Exposure controls

Follow the usual measures intended for health protection at work and especially for good ventilation. This can be achieved only by local suction or efficient general ventilation. Do not eat, drink and smoke during work. Wash your hands thoroughly with water and soap after work and before breaks for a meal and rest.

Eye/face protection

Protective goggles or face shield (based on the nature of the work performed).

Skin protection

Hand protection: Protective gloves resistant to the product (nitrile rubber). When choosing appropriate thickness, material and permeability of the gloves, observe recommendations of their particular manufacturer. Observe other recommendations of the manufacturer. Other protection: protective workwear. Contaminated skin should be washed thoroughly.

Respiratory protection

Use a mask with anti-dust filter when the exposition limits of the substances are exceeded or at the place with insufficient ventilation.

Thermal hazard

Not available.

Environmental exposure controls

Observe usual measures for protection of the environment, see Section 6.2. Collect spillage.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state solid
Colour white

Odour without fragrance

Melting point/freezing point 470 °C

Boiling point or initial boiling point and boiling range
Flammability
Lower and upper explosion limit
Flash point
Auto-ignition temperature
Decomposition temperature
Decomposition temperature
DH
Sinematic viscosity

data not available



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Solubility in water data not available
Partition coefficient n-octanol/water (log value) data not available
Vapour pressure data not available
Density and/or relative density

Density 4.53 g/cm³ at 20 °C Relative vapour density data not available Particle characteristics data not available

9.2. Other information

Oxidising properties The product has an oxidizing properties.

SECTION 10: Stability and reactivity

10.1. Reactivity

The substance is oxidizing.

10.2. Chemical stability

The product is stable under normal conditions.

10.3. Possibility of hazardous reactions

Unknown.

10.4. Conditions to avoid

The product is stable and no degradation occurs under normal use. Protect against flames, sparks, overheating and against frost.

10.5. Incompatible materials

Protect against strong acids, bases and oxidizing agents.

10.6. Hazardous decomposition products

Not developed under normal uses. Dangerous outcomes such as carbon monoxide and carbon dioxide are formed at high temperature and in fire.

SECTION 11: Toxicological information

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

No toxicological data is available for the substance. Inhalation of solvent vapors above values exceeding exposure limits for working environment may result in acute inhalation poisoning, depending on the level of concentration and exposure time.

Acute toxicity

Harmful if swallowed or if inhaled.

Lead nitrate						
Route of exposure	Parameter	Method	Value	Exposure time	Species	Sex
Dermal	LD50	OECD 402	>2000 mg/kg		Rat (Rattus norvegicus)	F/M

Skin corrosion/irritation

No data available for the substance. Based on available data the classification criteria are not met.

Serious eye damage/irritation

Causes serious eye damage.

Respiratory or skin sensitisation

May cause an allergic skin reaction.

Germ cell mutagenicity

No data available for the substance. Based on available data the classification criteria are not met.



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Carcinogenicity

No data available for the substance. Based on available data the classification criteria are not met.

Reproductive toxicity

May damage the unborn child. Suspected of damaging fertility.

Toxicity for specific target organ - single exposure

No data available for the substance. Based on available data the classification criteria are not met.

Toxicity for specific target organ - repeated exposure

Causes damage to organs through prolonged or repeated exposure.

Aspiration hazard

No data available for the substance. Based on available data the classification criteria are not met.

11.2. Information on other hazards

Endocrine disrupting properties

Based on available data the classification criteria are not met. Does not contain any components that may cause endocrine disruption for humans.

Other information

not available

SECTION 12: Ecological information

12.1. Toxicity

Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.

Acute toxicity

Lead nitrate	Lead nitrate						
Parameter	Value	Exposure time	Species	Environment			
EC50	1.8 mg/l	48 hours	Daphnia (Daphnia magna)				
EC50	0.024-0.029 mg/l	28 hours	Algae (Selenastrum capricornutum)				

12.2. Persistence and degradability

No data available for the substance.

12.3. Bioaccumulative potential

No data available for the substance.

12.4. Mobility in soil

No data available for the substance.

12.5. Results of PBT and vPvB assessment

Based on available data the classification criteria are not met. Does not contain any PBT or vPvB components. Product does not contain any substance meeting the criteria for PBT or vPvB in accordance with the Annex XIII of Regulation (EC) No 1907/2006 (REACH) as amended.

12.6. Endocrine disrupting properties

Based on available data the classification criteria are not met. Does not contain any components that may cause endocrine disruption in the environment.

12.7. Other adverse effects

Not available.



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SECTION 13: Disposal considerations

13.1. Waste treatment methods

Hazard of environmental contamination; dispose of the waste in accordance with the local and/or national regulations. Any unused product and contaminated packaging should be put in labelled containers for waste collection and submitted for disposal to a person authorised for waste removal (a specialized company) that is entitled for such activity. Do not empty unused product in drainage systems. The product must not be disposed of with municipal waste. Empty containers may be used at waste incinerators to produce energy or deposited in a dump with appropriate classification. Perfectly cleaned containers can be submitted for recycling.

Waste management legislation

Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste, as amended. Decision 2000/532/EC establishing a list of wastes, as amended.

SECTION 14: Transport information

14.1. UN number or ID number

UN 1469

14.2. UN proper shipping name

LEAD NITRATE

14.3. Transport hazard class(es)

5.1 Oxidazing substances

14.4. Packing group

Η

14.5. Environmental hazards

not relevant

14.6. Special precautions for user

not available

14.7. Maritime transport in bulk according to IMO instruments

not relevant

Additional information

Hazard identification No.

UN number Classification code

Safety signs

56 1469

OT2

5.1+6.1+ hazardous for the environment







Tunnel restriction code

Air transport - ICAO/IATA

Packaging instructions passenger 558
Cargo packaging instructions 562

Marine transport - IMDG

EmS (emergency plan)

F-A, S-Q

(E)



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SECTION 15: Regulatory information

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

Regulation (EC) No. 1907/2006 of the European Parliament and of the Council of 18th December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing the European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No. 793/93 and Commission Regulation (EC) No. 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, as amended. REGULATION (EC) No. 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL as amended. Commission Regulation (EU) 2020/878 of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

Restrictions pursuant to Annex XVII of Regulation (EC) No. 1907/2006 (REACH), as amended

Lead nitrate

mixture is equal to or greater than: — either the relevant specific concentration limit specified in Part 3 of Annex VI to Regulation (EC) 1272/2008, or, — the relevant generic concentration limit specified in Part 3 of Annex I of Regulation (EC) No 1272/2008. Without prejudice to the implementation of other Community provisions relating to the classificati packaging and labelling of substances and mixtures, suppliers shall ensure before the placing on to market that the packaging of such substances and mixtures is marked visibly, legibly and indelibly follows: "Restricted to professional users". 2. By way of derogation, paragraph 1 shall not apply to: (a) medicinal or veterinary products as defined by Directive 2001/82/EC and Directive 2001/83/Ei (b) cosmetic products as defined by Directive 76/768/EEC; (c) the following fuels and oil products: — motor fuels which are covered by Directive 98/70/EC, — mineral oil products intended for use as fuel in mobile or fixed combustion plants, — fuels sold in closed systems (e.g. liquid gas bottles); (d) artists' paints covered by Regulation (EC) No 1272/2008; (e) the substances listed in Appendix 11, column 1, for the applications or uses listed in Appendix column 2. Where a date is specified in column 2 of Appendix 11, the derogation shall apply until t said date. (f) devices covered by Regulation (EU) 2017/745. 1. Shall not be placed on the market or used in any individual part of jewellery articles if the concentration of lead (expressed as metal) in such a part is equal to or greater than 0,05 % by weight. 2. For the purposes of paragraph 1: (i) "jewellery articles" shall include jewellery and imitation jewellery articles and hair accessories, including: (a) bracelets, necklaces and rings; (b) piercing jewellery; (c) wrist watches and wrist-wear; (d) brooches and cufflinks;	Lead nitrate	
 — as substances, — as constituents of other substances, or, — in mixtures, for supply to the general public when the individual concentration in the substance mixture is equal to or greater than: — either the relevant specific concentration limit specified in Part 3 of Annex VI to Regulation (EC) 1272/2008, or, — the relevant generic concentration limit specified in Part 3 of Annex I of Regulation (EC) No 1272/2008. Without prejudice to the implementation of other Community provisions relating to the classificati packaging and labelling of substances and mixtures, suppliers shall ensure before the placing on the market that the packaging of such substances and mixtures is marked visibly, legibly and indelibly follows: "Restricted to professional users". 2. By way of derogation, paragraph 1 shall not apply to: (a) medicinal or veterinary products as defined by Directive 2001/82/EC and Directive 2001/83/Et (b) cosmetic products as defined by Directive 76/768/EEC; (c) the following fuels and oil products: — motor fuels which are covered by Directive 98/70/EC, — mineral oil products intended for use as fuel in mobile or fixed combustion plants, — fuels sold in closed systems (e.g. liquid gas bottles); (d) artists' paints covered by Regulation (EC) No 1272/2008; (e) the substances listed in Appendix 11, column 1, for the applications or uses listed in Appendix as date. (f) devices covered by Regulation (EU) 2017/745. 63 1. Shall not be placed on the market or used in any individual part of jewellery articles if the concentration of lead (expressed as metal) in such a part is equal to or greater than 0,05 % by weight. 2. For the purposes of paragraph 1: (i) "jewellery articles" shall include jewellery and imitation jewellery articles and hair accessories, including: (a) bracelets, necklaces and rings; <l< th=""><th>Restriction</th><th>Conditions of restriction</th></l<>	Restriction	Conditions of restriction
1. Shall not be placed on the market or used in any individual part of jewellery articles if the concentration of lead (expressed as metal) in such a part is equal to or greater than 0,05 % by weight. 2. For the purposes of paragraph 1: (i) "jewellery articles" shall include jewellery and imitation jewellery articles and hair accessories, including: (a) bracelets, necklaces and rings; (b) piercing jewellery; (c) wrist watches and wrist-wear; (d) brooches and cufflinks; (ii) "any individual part" shall include the materials from which the jewellery is made, as well as the		1. Shall not be placed on the market, or used, — as substances, — as constituents of other substances, or, — in mixtures, for supply to the general public when the individual concentration in the substance or mixture is equal to or greater than: — either the relevant specific concentration limit specified in Part 3 of Annex VI to Regulation (EC) No 1272/2008, or, — the relevant generic concentration limit specified in Part 3 of Annex I of Regulation (EC) No 1272/2008. Without prejudice to the implementation of other Community provisions relating to the classification, packaging and labelling of substances and mixtures, suppliers shall ensure before the placing on the market that the packaging of such substances and mixtures is marked visibly, legibly and indelibly as follows: "Restricted to professional users". 2. By way of derogation, paragraph 1 shall not apply to: (a) medicinal or veterinary products as defined by Directive 2001/82/EC and Directive 2001/83/EC; (b) cosmetic products as defined by Directive 76/768/EEC; (c) the following fuels and oil products: — motor fuels which are covered by Directive 98/70/EC, — mineral oil products intended for use as fuel in mobile or fixed combustion plants, — fuels sold in closed systems (e.g. liquid gas bottles); (d) artists' paints covered by Regulation (EC) No 1272/2008; (e) the substances listed in Appendix 11, column 1, for the applications or uses listed in Appendix 11, column 2. Where a date is specified in column 2 of Appendix 11, the derogation shall apply until the
3 Paragraph 1 shall also apply to individual parts when placed on the market or used for jewellers	63	 Shall not be placed on the market or used in any individual part of jewellery articles if the concentration of lead (expressed as metal) in such a part is equal to or greater than 0,05 % by weight. For the purposes of paragraph 1: "jewellery articles" shall include jewellery and imitation jewellery articles and hair accessories, including: bracelets, necklaces and rings; piercing jewellery; wrist watches and wrist-wear; brooches and cufflinks; "any individual part" shall include the materials from which the jewellery is made, as well as the



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Lead nitrate

Restriction	Conditions of restriction
	making.
	4. By way of derogation, paragraph 1 shall not apply to: (a) crystal glass as defined in Annex I (categories 1, 2, 3 and 4) to Council Directive 69/493/EEC (*); (b) internal components of watch timepieces inaccessible to consumers; (c) non-synthetic or reconstructed precious and semiprecious stones (CN code 7103, as established by Regulation (EEC) No 2658/87), unless they have been treated with lead or its compounds or mixtures containing these substances; (d) enamels, defined as vitrifiable mixtures resulting from the fusion, vitrification or sintering of minerals melted at a temperature of at least 500 °C.
	5. By way of derogation, paragraph 1 shall not apply to jewellery articles placed on the market for the first time before 9 October 2013 and jewellery articles produced before 10 December 1961.
	6. By 9 October 2017, the Commission shall re-evaluate paragraphs 1 to 5 of this entry in the light of new scientific information, including the availability of alternatives and the migration of lead from the articles referred to in paragraph 1 and, if appropriate, modify this entry accordingly.
	7. Shall not be placed on the market or used in articles supplied to the general public, if the concentration of lead (expressed as metal) in those articles or accessible parts thereof is equal to or greater than 0,05 % by weight, and those articles or accessible parts thereof may, during normal or reasonably foreseeable conditions of use, be placed in the mouth by children.
	That limit shall not apply where it can be demonstrated that the rate of lead release from such an article or any such accessible part of an article, whether coated or uncoated, does not exceed 0,05 $\mu g/cm^2$ per hour (equivalent to 0,05 $\mu g/g/h$), and, for coated articles, that the coating is sufficient to ensure that this release rate is not exceeded for a period of at least two years of normal or reasonably foreseeable conditions of use of the article.
	For the purposes of this paragraph, it is considered that an article or accessible part of an article may be placed in the mouth by children if it is smaller than 5 cm in one dimension or has a detachable or protruding part of that size.
	8. By way of derogation, paragraph 7 shall not apply to: (a) jewellery articles covered by paragraph 1; (b) crystal glass as defined in Annex I (categories 1, 2, 3 and 4) to Directive 69/493/EEC; (c) non-synthetic or reconstructed precious and semi-precious stones (CN code 7103 as established by Regulation (EEC) No 2658/87) unless they have been treated with lead or its compounds or mixtures containing these substances; (d) enamels, defined as vitrifiable mixtures resulting from the fusion, vitrification or sintering of mineral melted at a temperature of at least 500 °C; (e) keys and locks, including padlocks; (f) musical instruments; (g) articles and parts of articles comprising brass alloys, if the concentration of lead (expressed as metal) in the brass alloy does not exceed 0,5 % by weight; (h) the tips of writing instruments; (i) religious articles; (j) portable zinc-carbon batteries and button cell batteries;
	(k) articles within the scope of: (i) Directive 94/62/EC; (ii) Regulation (EC) No 1935/2004; (iii) Directive 2009/48/EC of the European Parliament and of the Council (*); (iv) Directive 2011/65/EU of the European Parliament and of the Council (**)
	9. By 1 July 2019, the Commission shall re-evaluate paragraphs 7 and 8(e), (f), (i) and (j) of this entry in the light of new scientific information, including the availability of alternatives and the



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Lead nitrate

Restriction	Conditions of restriction
	migration of lead from the articles referred to in paragraph 7, including the requirement on coating integrity, and, if appropriate, modify this entry accordingly.
	10. By way of derogation paragraph 7 shall not apply to articles placed on the market for the first time before 1 June 2016.
	11. Doing either of the following acts after 15 February 2023 in or within 100 metres of wetlands is prohibited:
	(a)discharging gunshot containing a concentration of lead (expressed as metal) equal to or greater than 1 % by weight;
	(b)carrying any such gunshot where this occurs while out wetland shooting or as part of going wetland shooting.
	For the purposes of the first subparagraph: (a)"within 100 metres of wetlands" means within 100 metres outward from any outer boundary point of a wetland;
	(b)"wetland shooting" means shooting in or within 100 metres of wetlands; (c) if a person is found carrying gunshot in or within 100 metres of wetlands while out shooting or as part of going shooting, the shooting concerned shall be presumed to be wetland shooting unless that person can demonstrate that it was some other type of shooting.
	The restriction laid down in the first subparagraph shall not apply in a Member State if that Member State notifies the Commission in accordance with paragraph 12 that it intends to make use of the option granted by that paragraph.
	12. If at least 20 % in total of the territory, excluding the territorial waters, of a Member State are wetlands, that Member State may, in place of the restriction laid down in the first subparagraph of paragraph 11, prohibit the following acts throughout the whole of its territory from 15 February 2024:
	(a)the placing on the market of gunshot containing a concentration of lead (expressed as metal) equal to or greater than 1 % by weight; (b)the discharging of any such gunshot;
	(c)carrying any such gunshot while out shooting or as part of going shooting.
	Any Member State intending to make use of the option granted by the first subparagraph shall notify the Commission of this intention by 15 August 2021. The Member State shall communicate the text of the national measures adopted by it to the Commission without delay and in any event by 15 August 2023. The Commission shall make publicly available without delay any such notices of intention and texts of national measures received by it.
	13. For the purposes of paragraphs 11 and 12: (a) "wetlands" means areas of marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed 6 metres; (b) "gunshot" means pellets used or intended for use in a single charge or cartridge in a shotgun; (c) "shotgun" means a smooth-bore gun, excluding airguns; (d) "shooting" means any shooting with a shotgun;
	(e)"carrying" means any carrying on the person or carrying or transporting by any other means; (f)in determining whether a person found with gunshot is carrying gunshot "as part of going shooting":
	(i)regard shall be had to all the circumstances of the case; (ii)the person found with the gunshot need not necessarily be the same person as the person shooting.
	14. Member States may maintain national provisions for protection of the environment or human health in force on 15 February 2021 and restricting lead in gunshot more severely than provided for

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Restriction	Conditions of restriction
	in paragraph 11.
	The Member State shall communicate the text of those national provisions to the Commission without delay. The Commission shall make publicly available without delay any such texts of national provisions received by it.
	15. Shall not be placed on the market or used in articles produced from polymers or copolymers of vinyl chloride ('PVC'), if the concentration of lead is equal to or greater than 0,1 % by weight of the PVC material.
	16. Paragraph 15 shall apply with effect from 29 November 2024.
	17. By way of derogation, paragraph 15 shall not apply to PVC articles containing recovered flexible PVC until 28 May 2025.
	18. By way of derogation, paragraph 15 shall not apply to the following PVC articles containing recovered rigid PVC until 28 May 2033, if the concentration of lead is lower than 1,5 % by weight of the recovered rigid PVC:
	(a) profiles and sheets for exterior applications in buildings and civil engineering works, excluding decks and terraces;
	(b) profiles and sheets for decks and terraces, provided that the recovered PVC is used in a middle layer and is entirely covered with a layer of PVC or other material for which the concentration of lead is lower than 0,1 % by weight;
	(c) profiles and sheets for use in concealed spaces or voids in buildings and civil engineering works (where they are inaccessible during normal use, excluding maintenance, for example, cable ducts); (d) profiles and sheets for interior building applications, provided that the entire surface of the profile or sheet facing the occupied areas of a building after installation is produced using PVC or other material for which the concentration of lead is lower than 0,1 % by weight; (e) multi-layer pipes (excluding pipes for drinking water), provided that the recovered PVC is used in a middle layer and is entirely covered with a layer of PVC or other material for which the concentration of lead is lower than 0,1 % by weight; (f) fittings, excluding fittings for pipes for drinking water.
	From 28 May 2026, rigid PVC recovered from the categories of articles referred to in points (a) to (d) shall only be used for the production of new articles of any of those categories.
	Suppliers of PVC articles containing recovered rigid PVC with a concentration of lead equal to or greater than 0,1 % by weight of the PVC material shall ensure, before placing those articles on the market, that they are visibly, legibly and indelibly marked with the statement: "Contains \geq 0,1 % lead". Where the marking cannot be provided on the article due to the nature of the article, it shall be on the packaging of the article.
	Suppliers of PVC articles containing recovered rigid PVC shall submit to national enforcement authorities upon request documentary evidence to substantiate the claims on the recovered origin of the PVC in those articles. Certificates issued by schemes to provide proof of traceability and recycled content, such as those developed according to EN 15343:2007 or equivalent recognised standards, may be used to substantiate such claims for PVC articles produced in the Union. Claims made on the recovered origin of the PVC in imported articles shall be accompanied by a certificate that provides equivalent proof of traceability and recycled content, issued by an independent third party.
	By 28 May 2028, the Commission shall review this paragraph in light of new scientific information and, if appropriate, modify it accordingly.
	19. By way of derogation, paragraph 15 shall not apply to: (a) PVC-silica separators in lead acid batteries, until 28 May 2033; (b) articles covered by paragraph 1, in accordance with paragraphs 2 to 5, and by paragraph 7 in accordance with paragraphs 8 and 10;

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Lead nitrate

Restriction	Conditions of restriction
	(c) articles within the scope of:
	(i) Regulation (EC) No 1935/2004;
	(ii) Directive 2011/65/EU;
	(iii) Directive 94/62/EC;
	(iv) Directive 2009/48/EC.
	20. By way of derogation, paragraph 15 shall not apply to PVC articles placed on the market until 28
	November 2024.
72	1. Shall not be placed on the market after 1 November 2020 in any of the following:
	(a) clothing or related accessories;
	(b) textiles other than clothing which, under normal or reasonably foreseeable conditions of use,
	come into contact with human skin to an extent similar to clothing;
	(c) footwear;
	if the clothing, related accessory, textile other than clothing or footwear is for use by consumers and
	the substance is present in a concentration, measured in homogeneous material, equal to or greater than that specified for that substance in Appendix 12.
	trial trial specified for trial substance in Appendix 12.
	2. By way of derogation, in relation to the placing on the market of formaldehyde [CAS No 50-00-0]
	in jackets, coats or upholstery, the relevant concentration for the purposes of paragraph 1 shall be
	300 mg/kg during the period between 1 November 2020 and 1 November 2023. The concentration
	specified in Appendix 12 shall apply thereafter.
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	3. Paragraph 1 shall not apply to:
	(a) clothing, related accessories or footwear, or parts of clothing, related accessories or footwear,
	made exclusively of natural leather, fur or hide;
	(b) non-textile fasteners and non-textile decorative attachments;
	(c) second-hand clothing, related accessories, textiles other than clothing or footwear
	(d) wall-to-wall carpets and textile floor coverings for indoor use, rugs and runners.
	<u> </u>
	4. Paragraph 1 shall not apply to clothing, related accessories, textiles other than clothing, or
	footwear within the scope of Regulation (EU) 2016/425 of the European Parliament and of the
	Council (*) or Regulation (EU) 2017/745 of the European Parliament and of the Council (**).
	5. Paragraph 1(b) shall not apply to disposable textiles. 'Disposable textiles' means textiles that are
	designed to be used only once or for a limited time and are not intended for subsequent use for the
	same or a similar purpose.
	same of a similar purpose.
	6. Paragraphs 1 and 2 shall apply without prejudice to the application of any stricter restrictions set
	out in this Annex or in other applicable Union legislation.
	The same of the same approach of the same
	7. The Commission shall review the exemption in paragraph 3(d) and, if appropriate, modify that
	point accordingly.
	(*) Regulation (EU) 2016/425 of the European Parliament and of the Council of of 9 March 2016 on
	personal protective equipment and repealing Council Directive 89/686/EEC (OJ L 81, 31.3.2016, p.
	51).
	(**) Regulation (EU) 2017/745 of the European Parliament and of the Council of 5 April 2017 on
	medical devices, amending Directive 2001/83/EC, Regulation (EC) No 178/2002 and Regulation (EC)
	No 1223/2009 and repealing Council Directives 90/385/EEC and 93/42/EEC (OJ L 117, 5.5.2017, p.
	[1).

15.2. Chemical safety assessment

No chemical safety assessment has been performed for this substance.



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No chemical safety assessment has been performed for this substance.



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No chemical safety assessment has been performed for this substance.

SECTION 16: Other information

A list of standard risk phrases used in the safety data sheet

H272 May intensify fire; oxidiser.
H302+H332 Harmful if swallowed or if inhaled.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.

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.

H372 Causes damage to the central nervous system, the immune system, the blood, the

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.

Guidelines for safe handling used in the safety data sheet

P201 Obtain special instructions before use.
P273 Avoid release to the environment.

P280 Wear protective gloves.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact

lenses, if present and easy to do. Continue rinsing.

P308+P313 IF exposed or concerned: Get medical advice/attention.

Other important information about human health protection

The product must not be - unless specifically approved by the manufacturer/importer - used for purposes other than as per the Section 1. The user is responsible for adherence to all related health protection regulations.

Key to abbreviations and acronyms used in the safety data sheet

Acute Tox. Acute toxicity

ADR European agreement concerning the international carriage of dangerous goods by

road

Aquatic Acute Hazardous to the aquatic environment

Aquatic Chronic Hazardous to the aquatic environment (chronic)

BCF Bioconcentration Factor
CAS Chemical Abstracts Service



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CLP Regulation (EC) No 1272/2008 on classification, labelling and packaging of

substance and mixtures

EC Identification code for each substance listed in EINECS

EC50 Concentration of a substance when it is affected 50 % of the population EINECS European Inventory of Existing Commercial Chemical Substances

EmS Emergency plan EU European Union

EuPCS European Product Categorisation System

Eye Dam. Serious eye damage

IATA International Air Transport Association

IBC International Code For The Construction And Equipment of Ships Carrying

Dangerous Chemicals

ICAO International Civil Aviation Organization
IMDG International Maritime Dangerous Goods
IMO International Maritime Organization

INCI International Nomenclature of Cosmetic Ingredients
ISO International Organization for Standardization
IUPAC International Union of Pure and Applied Chemistry

LD50 Lethal dose of a substance in which it can be expected death of 50% of the

population

log KowOctanol-water partition coefficientOELOccupational Exposure Limits

Ox. Liq. Oxidising liquid

PBT Persistent, bioaccumulative and toxic

PMT Persistent, mobile and toxic

ppm Parts per million

REACH Registration, Evaluation, Authorisation and Restriction of Chemicals

Repr. Reproductive toxicity

RID Agreement on the transport of dangerous goods by rail

Skin Sens. Skin sensitization

STOT RE Specific target organ toxicity - repeated exposure

UN Four-figure identification number of the substance or article taken from the UN

Model Regulations

UVCB Substances of unknown or variable composition, complex reaction products or

biological materials

VOC Volatile organic compounds

vPvB Very persistent and very bioaccumulative

vPvM Very persistent and very mobile

Training guidelines

Inform the personnel about the recommended ways of use, mandatory protective equipment, first aid and prohibited ways of handling the product.

Recommended restrictions of use

not available

Information about data sources used to compile the Safety Data Sheet

REGULATION (EC) No. 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL (REACH) as amended. REGULATION (EC) No. 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL as amended. Data from the manufacturer of the substance / mixture, if available - information from registration dossiers.

The changes (which information has been added, deleted or modified)

The version 5.0 replaces the SDS version from Monday, 17 July 2023. Changes were made in sections 2, 11, 12, 13 and 16.

More information

Classification procedure - calculation method.



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Statement

The safety data sheet provides information aimed at ensuring safety and health protection at work and environmental protection. The provided information corresponds to the current status of knowledge and experience and complies with valid legal regulations. The information should not be understood as guaranteeing the suitability and usability of the product for a particular application.

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