

date of compilation: 09.08.2021

Revision: 02.03.2024

Lead(II) acetate trihydrate ROTI®METIC 99,999 % (5N)

article number: **1L50** Version: **3.0 en** Replaces version of: 17.11.2022 Version: (2)

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

1.1 Product identifier

1.2

Identification of the substance	Lead(II) acetate trihydrate ROTI®METIC 99,999 % (5N)
Article number	1L50
Registration number (REACH)	It is not required to list the identified uses be- cause the substance is not subject to registration according to REACH (< 1 t/a).
Index number in CLP Annex VI	082-005-00-8
EC number	612-031-2
CAS number	6080-56-4
Relevant identified uses of the substance or m	ixture and uses advised against

Relevant identified uses:

Uses advised against:

Laboratory chemical Laboratory and analytical use

Do not use for products which come into contact with foodstuffs. Do not use for private purposes (household). Food, drink and animal feedingstuffs.

1.3 Details of the supplier of the safety data sheet

Carl Roth GmbH + Co. KG Schoemperlenstr. 3-5 D-76185 Karlsruhe Germany

Telephone:+49 (0) 721 - 56 06 0 **Telefax:** +49 (0) 721 - 56 06 149 **e-mail:** sicherheit@carlroth.de **Website:** www.carlroth.de

Competent person responsible for the safety data Department Health, Safety and Environment sheet:

e-mail (competent person):

sicherheit@carlroth.de

1.4 Emergency telephone number

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

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

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU



Lead(II) acetate trihydrate ROTI®METIC 99,999 % (5N)

article number: **1L50**

Section	n Hazard class		Hazard class and category	Hazard statement
3.7 Reproductive toxicity		1A	Repr. 1A	H360Df
3.9	3.9 Specific target organ toxicity - repeated exposure		STOT RE 2	H373
4.1A Hazardous to the aquatic environment - acute hazard		1	Aquatic Acute 1	H400
4.1C	Hazardous to the aquatic environment - chronic hazard	1	Aquatic Chronic 1	H410

For full text of abbreviations: see SECTION 16

The most important adverse physicochemical, human health and environmental effects

Delayed or immediate effects can be expected after short or long-term exposure. Spillage and fire water can cause pollution of watercourses.

2.2 Label elements

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

Signal word Danger

Pictograms

GHS08, GHS09



Hazard statements

H360Df	May damage the unborn child. Suspected of damaging fertility
H373	May cause damage to organs (central nervous system, blood, immune system,
	kidney) through prolonged or repeated exposure
H410	Very toxic to aquatic life with long lasting effects

Precautionary statements

Precautionary statements - prevention

P273	Avoid release to the environment
P280	Wear protective gloves/eye protection

Precautionary statements - response

P308+P313	IF exposed or concerned: Get medical advice/attention
P314	Get medical advice/attention if you feel unwell

For professional users only

Labelling of packages where the contents do not exceed 125 ml

Signal word: Danger



H360Df P280 P308+P313 May damage the unborn child. Suspected of damaging fertility.

Wear protective gloves/eye protection. IF exposed or concerned: Get medical advice/attention.

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU



Lead(II) acetate trihydrate ROTI®METIC 99,999 % (5N)

article number: 1L50

2.3 Other hazards

Results of PBT and vPvB assessment

According to the results of its assessment, this substance is not a PBT or a vPvB.

Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) at a concentration of $\ge 0,1\%$.

SECTION 3: Composition/information on ingredients

3.1 Substances

Name of substance	Lead(II) acetate trihydrate
Molecular formula	Pb(CH₃COO)₂ · 3 H₂O
Molar mass	379,3 ^g / _{mol}
CAS No	6080-56-4
EC No	612-031-2
Index No	082-005-00-8

Substance of Very High Concern (SVHC)

Name of substance	CAS No	EC No	Listed in	Remarks
Lead(II) acetate trihydrate	301-04-2	206-104-4	Candidate list	Repr. A57c

Legend

Candidate Substances meeting the criteria referred to in Article 57 and for eventual inclusion in Annex XIV

list Repr. A57c Toxic for reproduction (article 57c)

SECTION 4: First aid measures

4.1 Description of first aid measures



General notes

Take off contaminated clothing.

Following inhalation

Provide fresh air. In all cases of doubt, or when symptoms persist, seek medical advice.

Following skin contact

Rinse skin with water/shower.

Following eye contact

Rinse cautiously with water for several minutes. In all cases of doubt, or when symptoms persist, seek medical advice.

Following ingestion

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU



Lead(II) acetate trihydrate ROTI®METIC 99,999 % (5N)

article number: 1L50

- **4.2 Most important symptoms and effects, both acute and delayed** Diarrhoea, Vomiting, Nausea, Spasms
- **4.3 Indication of any immediate medical attention and special treatment needed** none

SECTION 5: Firefighting measures

5.1 Extinguishing media



Suitable extinguishing media

co-ordinate firefighting measures to the fire surroundings! water, foam, alcohol resistant foam, dry extinguishing powder, ABC-powder

Unsuitable extinguishing media

water jet

5.2 Special hazards arising from the substance or mixture

Non-combustible.

Hazardous combustion products

In case of fire may be liberated: Carbon monoxide (CO), Carbon dioxide (CO₂)

5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Do not allow firefighting water to enter drains or water courses. Fight fire with normal precautions from a reasonable distance. Wear self-contained breathing apparatus.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures



For non-emergency personnel

Use personal protective equipment as required. Avoid contact with skin, eyes and clothes. Do not breathe dust.

6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it. If substance has entered a water course or sewer, inform the responsible authority.

6.3 Methods and material for containment and cleaning up

Advice on how to contain a spill

Covering of drains. Take up mechanically.

Advice on how to clean up a spill

Take up mechanically. Control of dust.

Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU



Lead(II) acetate trihydrate ROTI®METIC 99,999 % (5N)

article number: 1L50

6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Use extractor hood (laboratory). Avoid exposure. Avoid dust formation.

Measures to prevent fire as well as aerosol and dust generation

Removal of dust deposits.

Measures to protect the environment

Avoid release to the environment.

Advice on general occupational hygiene

Wash hands before breaks and after work. Keep away from food, drink and animal feedingstuffs.

7.2 Conditions for safe storage, including any incompatibilities

Store in a dry place.

Incompatible substances or mixtures

Observe hints for combined storage.

Consideration of other advice:

Ventilation requirements

Use local and general ventilation.

Specific designs for storage rooms or vessels

Recommended storage temperature: 15 - 25 °C

7.3 Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

National limit values

Occupational exposure limit values (Workplace Exposure Limits)

This information is not available.

8.2 Exposure controls

Individual protection measures (personal protective equipment)

Eye/face protection



Use safety goggle with side protection.

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU

Lead(II) acetate trihydrate ROTI®METIC 99,999 % (5N)

® ROTH

article number: **1L50**

Skin protection



hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. The times are approximate values from measurements at 22 ° C and permanent contact. Increased temperatures due to heated substances, body heat etc. and a reduction of the effective layer thickness by stretching can lead to a consider-able reduction of the breakthrough time. If in doubt, contact manufacturer. At an approx. 1.5 times larger / smaller layer thickness, the respective breakthrough time is doubled / halved. The data apply only to the pure substance. When transferred to substance mixtures, they may only be considered as a guide.

• type of material

NBR (Nitrile rubber)

• material thickness

>0,11 mm

• breakthrough times of the glove material

>480 minutes (permeation: level 6)

• other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended.

Respiratory protection



Respiratory protection necessary at: Dust formation. Particulate filter device (EN 143). P2 (filters at least 94 % of airborne particles, colour code: White).

Environmental exposure controls

Keep away from drains, surface and ground water.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	solid
Form	powder, crystalline
Colour	white
Odour	stinging
Melting point/freezing point	75 °C (Release of crystal water) (ECHA)
Boiling point or initial boiling point and boiling range	not determined
Flammability	non-combustible
Lower and upper explosion limit	not determined

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU



Lead(II) acetate trihydrate ROTI®METIC 99,999 % (5N)

article number: **1L50**

Flash point	not applicable
Auto-ignition temperature	not determined
Decomposition temperature	200 °C (ECHA)
pH (value)	5,5 – 6,5 (in aqueous solution: 50 ^g / _l , 20 °C)
Kinematic viscosity	not relevant
Solubility(ies)	
Water solubility	443 ^g / _l at 20 °C (ECHA)
Partition coefficient	
Partition coefficient n-octanol/water (log value):	-0,17 (ECHA)
Vapour pressure	not determined
Density and/or relative density	
Density	2,55 ^g / _{cm³} at 20 °C
Relative vapour density	Information on this property is not available.
Bulk density	~1.200 ^{kg} / _{m³}
Particle characteristics	No data available.
Other safety parameters	
Oxidising properties	none
Other information	
Information with regard to physical hazard classes:	hazard classes acc. to GHS (physical hazards): not relevant
Other safety characteristics:	There is no additional information.

SECTION 10: Stability and reactivity

10.1 Reactivity

9.2

This material is not reactive under normal ambient conditions.

10.2 Chemical stability

The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

10.3 Possibility of hazardous reactions

Violent reaction with: strong oxidiser, Strong alkali, Danger of explosion: Bromates, Phenol, Strong acid

10.4 Conditions to avoid

Keep away from heat. Decompostion takes place from temperatures above: 200 °C.

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU



Lead(II) acetate trihydrate ROTI®METIC 99,999 % (5N)

article number: 1L50

10.5 Incompatible materials

iron, Steel

10.6 Hazardous decomposition products Hazardous combustion products: see section 5.

SECTION 11: Toxicological information

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

Classification according to GHS (1272/2008/EC, CLP)

Acute toxicity

Shall not be classified as acutely toxic.

Acute toxicity					
Exposure route	Endpoint	Value	Species	Method	Source
oral	LD50	5.610 ^{mg} / _{kg}	rat		ECHA
oral	LD50	4.665 ^{mg} / _{kg}	rat		ECHA
dermal	LD50	>2.000 ^{mg} / _{kg}	rat		ECHA

Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin.

Serious eye damage/eye irritation

Shall not be classified as seriously damaging to the eye or eye irritant.

Respiratory or skin sensitisation

Shall not be classified as a respiratory or skin sensitiser.

Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

Carcinogenicity

Shall not be classified as carcinogenic.

Reproductive toxicity

May damage the unborn child. Suspected of damaging fertility.

Specific target organ toxicity - single exposure

Shall not be classified as a specific target organ toxicant (single exposure).

Specific target organ toxicity - repeated exposure

May cause damage to organs (central nervous system, blood, immune system, kidney) through prolonged or repeated exposure.

Hazard category	Target organ	Exposure route
2	central nervous system	if exposed
2	blood	if exposed
2	immune system	if exposed
2	kidney	if exposed

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU



Lead(II) acetate trihydrate ROTI®METIC 99,999 % (5N)

article number: **1L50**

Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

Symptoms related to the physical, chemical and toxicological characteristics

• If swallowed

Data are not available.

• If in eyes

Data are not available.

• If inhaled

Data are not available.

• If on skin

Data are not available.

• Other information

Nausea, Vomiting, Diarrhoea, Abdominal pain, Spasms, Vertigo, Headache, Irreversible damage to internal organs, Central nervous system

11.2 Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) at a concentration of $\ge 0,1\%$.

11.3 Information on other hazards

There is no additional information.

SECTION 12: Ecological information

12.1 Toxicity

Very toxic to aquatic life with long lasting effects.

Aquatic toxicity (acute)				
Endpoint	Value	Species	Source	Exposure time
EC50	2,7 ^{mg} / _l	daphnia magna		48 h
LC50	596,8 ^{µg} / _l	aquatic invertebrates	ECHA	48 h
ErC50	123 ^{µg} / _l	algae	ECHA	72 h

Aquatic toxicity (chronic)

Endpoint	Value	Species	Source	Exposure time
ErC50	388 ^{µg} / _l	algae	ECHA	2 d

12.2 Persistence and degradability

Theoretical Oxygen Demand: 0,2952 ^{mg}/_{mg} Theoretical Carbon Dioxide: 0,4641 ^{mg}/_{mg}

Biodegradation

The substance is readily biodegradable.

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU



Lead(II) acetate trihydrate ROTI®METIC 99,999 % (5N)

article number: 1L50

Process of degradability				
Process	Degradation rate	Time		
DOC removal	90 %	3 d		

12.3 Bioaccumulative potential

Does not significantly accumulate in organisms.

n-octanol/water (log KOW)	-0,17 (ECHA)
---------------------------	--------------

12.4 Mobility in soil

Data are not available.

12.5 Results of PBT and vPvB assessment Data are not available.

12.6 Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) at a concentration of $\ge 0,1\%$.

12.7 Other adverse effects

Data are not available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods



This material and its container must be disposed of as hazardous waste. Dispose of contents/container in accordance with local/regional/national/international regulations.

Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.

Waste treatment of containers/packagings

It is a dangerous waste; only packagings which are approved (e.g. acc. to ADR) may be used. Handle contaminated packages in the same way as the substance itself. Completely emptied packages can be recycled.

13.2 Relevant provisions relating to waste

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

Properties of waste which render it hazardous

- HP 5 specific target organ toxicity (STOT)/aspiration toxicity
- HP 10 toxic for HP 14 ecotoxic toxic for reproduction

13.3 Remarks

Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities. Please consider the relevant national or regional provisions. Non-contaminated packages may be recycled.

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU



Lead(II) acetate trihydrate ROTI®METIC 99,999 % (5N)

article number: **1L50**

SEC	TION 14: Transport information	
14.1	UN number or ID number	
	ADR	UN 1616
	IMDG-Code	UN 1616
	ICAO-TI	UN 1616
14.2	UN proper shipping name	
	ADR	LEAD ACETATE
	IMDG-Code	LEAD ACETATE
	ICAO-TI	Lead acetate
14.3	Transport hazard class(es)	
	ADR	6.1
	IMDG-Code	6.1
	ICAO-TI	6.1
14.4	Packing group	
	ADR	III
	IMDG-Code	III
	ICAO-TI	III
14.5	Environmental hazards	hazardous to the aquatic environment

14.6 Special precautions for user

Provisions for dangerous goods (ADR) should be complied within the premises.

14.7 Maritime transport in bulk according to IMO instruments

The cargo is not intended to be carried in bulk.

14.8 Information for each of the UN Model Regulations

Agreement concerning the International Carriage of Dangerous Goods by Road (ADR)Additional information

Proper shipping name	LEAD ACETATE
Particulars in the transport document	UN1616, LEAD ACETATE, 6.1, III, (E), environment- ally hazardous
Classification code	Т5
Danger label(s)	6.1, "Fish and tree"
Environmental hazards	Yes (hazardous to the aquatic environment)
Special provisions (SP)	802(ADN)
Excepted quantities (EQ)	E1
Limited quantities (LQ)	5 kg

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU



Lead(II) acetate trihydrate ROTI®METIC 99,999 % (5N)

article	number:	1L50
anticic	number.	1630

Transport category (TC)	2
Tunnel restriction code (TRC)	E
Hazard identification No	60
International Maritime Dangerous Goods Cod	e (IMDG) - Additional information
Proper shipping name	LEAD ACETATE
Particulars in the shipper's declaration	UN1616, LEAD ACETATE, 6.1, III, MARINE POLLUT- ANT
Marine pollutant	yes (P) (hazardous to the aquatic environment)
Danger label(s)	6.1, "Fish and tree"
Special provisions (SP)	-
Excepted quantities (EQ)	E1
Limited quantities (LQ)	5 kg
EmS	F-A, S-A
Stowage category	Α
Segregation group	7 - Heavy metals and their salts 9 - Lead and its compounds
International Civil Aviation Organization (ICA	O-IATA/DGR) - Additional information
Proper shipping name	Lead acetate
Particulars in the shipper's declaration	UN1616, Lead acetate, 6.1, III
Environmental hazards	Yes (hazardous to the aquatic environment)
Danger label(s)	6.1
Excepted quantities (EQ)	E1
Limited quantities (LQ)	10 kg

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture Relevant provisions of the European Union (EU)

Restrictions according to REACH, Annex XVII

angerous substances with restrictions (REACH, Annex XVII)					
Name of substance	Name acc. to inventory	CAS No	Restriction	No	
Lead(II) acetate trihydrate	toxic for reproduction		R28-30	30	
Lead(II) acetate trihydrate	substances in tattoo inks and perman- ent make-up		R75	75	

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU



Lead(II) acetate trihydrate ROTI®METIC 99,999 % (5N)

article number: 1L50

Dangerous substances with restrictions (REACH, Annex XVII)					
Name of substance Name acc. to inventory CAS No Restriction					
Lead(II) acetate trihydrate	lead compounds		R63	63	
Lead(II) acetate trihydrate	lead compounds		R72 R72_Pb	72	

Legend

R28-30 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'.
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,

motor fuels which are covered by Directive 987/07EC,
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 said date;
(f) devices covered by Regulation (EU) 2017/745.

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU



Lead(II) acetate trihydrate ROTI®METIC 99,999 % (5N)

article number: 1L50

Legend R63

1. Shall not be placed on the market or used in any individual part of jewellery articles if the concentration of lead (ex-pressed 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 individual components of the jewellery articles. 3. Paragraph 1 shall also apply to individual parts when placed on the market or used for jewellery-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 (14);
(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.

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 in-formation, including the availability of alternatives and the migration of lead from the articles referred to in para-graph 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 (ex-pressed 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 µg/cm2 per hour (equivalent to 0,05 µg/q/h), and, for coated articles, that the coating is sufficient to ensure that this release rate is not exceeded for a peri-

accessible part of an article, whether coated of uncoated, does not exceed 0,05 µg/cm2 per hour (equivalent to 0,05 µg/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) paragraph article or prostructure depresent proteines and erosion or the paragraph (2) as established by Degulation.

(c) 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;

(ii) Regulation (EC) No 1935/2004;
(iii) Directive 2009/48/EC of the European Parliament and of the Council (1);
(iv) Directive 2011/65/EU of the European Parliament and of the Council (2)
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 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 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 while out shooting or as part of going shooting.
(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 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 to 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

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 avail-able 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,

Lead(II) acetate trihydrate ROTI®METIC 99,999 % (5N)

article number: 1L50



20. By way of derogation, paragraph 15 shall not apply to PVC articles placed on the market until 28 November 2024.



Lead(II) acetate trihydrate ROTI®METIC 99,999 % (5N)

article number: 1L50

Legend R72

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 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 sub-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. 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.

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. 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.

or in other applicable Union legislation. 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 Coun-cil Directives 90/385/EEC and 93/42/EEC (OJ L 117, 5.5.2017, p. 1). Appendix 12 (maximum concentration limits by weight in homogeneous materials): 1 mg/kg after extraction (ex-pressed as Pb metal that can be extracted from the material)

R72 Pb







article number: 1L50

Legend	
R75	1. Shall not be placed on the market in mixtures for use for tattooing purposes, and mixtures containing any such sub- stances shall not be used for tattooing purposes, after 4 January 2022 if the substance or substances in question is or
	are present in the following circumstances: (a) in the case of a substance classified in Part 3 of Annex VI to Regulation (EC) No 1272/2008 as carcinogen category 1A, 1B or 2, or germ cell mutagen category 1A, 1B or 2, the substance is present in the mixture in a concentration
	equal to or greater than 0,00005 % by weight; (b) in the case of a substance classified in Part 3 of Annex VI to Regulation (EC) No 1272/2008 as reproductive toxicant
	category 1A, 1B or 2, the substance is present in the mixture in a concentration equal to or greater than 0,001 % by weight; (c) in the case of a substance classified in Part 3 of Annex VI to Regulation (EC) No 1272/2008 as skin sensitiser cat-
	egory 1, 1A or 1B, the substance is present in the mixture in a concentration equal to or greater than 0,001 % by weight;
	(d) in the case of a substance classified in Part 3 of Annex VI to Regulation (EC) No 1272/2008 as skin corrosive cat- egory 1, 1A, 1B or 1C or skin irritant category 2, or as serious eye damage category 1 or eye irritant category 2, the substance is present in the mixture in a concentration equal to or greater than: (i) 0,1 % by weight, if the substance is used solely as a pH regulator; (ii) 0,01 % by weight, in all other cases;
	(e) in the case of a substance listed in Annex II to Regulation (EC) No 1223/2009 (*1), the substance is present in the mixture in a concentration equal to or greater than 0,00005 % by weight; (f) in the case of a substance for which a condition of one or more of the following kinds is specified in column g (Product type, Body parts) of the table in Annex IV to Regulation (EC) No 1223/2009, the substance is present in the mixture in a concentration equal to or greater than 0,00005 % by weight; (i) "Rinse-off products";
	(ii) "Not to be used in products applied on mucous membranes";(iii) "Not to be used in eve products":
	(g) in the case of a substance for which a condition is specified in column h (Maximum concentration in ready for use preparation) or column i (Other) of the table in Annex IV to Regulation (EC) No 1223/2009, the substance is present in the mixture in a concentration, or in some other way, that does not accord with the condition specified in that column; (h) in the case of a substance listed in Appendix 13 to this Annex, the substance is present in the mixture in a concentration equal to or greater than the concentration limit specified for that substance is present in the mixture into a person's skin, mucous membrane or eyeball, by any process or procedure (including procedures commonly referred to as permanent make-up, cosmetic tattooing, micro-blading and micro-pigmentation), with the aim of making a mark or design on his or her body.
	3. If a substance not listed in Appendix 13 falls within more than one of points (a) to (g) of paragraph 1, the strictest concentration limit laid down in the points in question shall apply to that substance. If a substance listed in Appendix 13 also falls within one or more of points (a) to (g) of paragraph 1, the concentration limit laid down in point (h) of paragraph 1 shall apply to that substance.
	4. By way of derogation, paragraph 1 shall not apply to the following substances until 4 January 2023: (a) Pigment Blue 15:3 (CI 74160, EC No 205-685-1, CAS No 147-14-8); (b) Pigment Green 7 (CI 74260, EC No 215-524-7, CAS No 1328-53-6).
	S. If Part 3 of Annex VI to Regulation (EC) No 1272/2008 is amended after 4 January 2021 to classify or re-classify a sub- stance such that the substance then becomes caught by point (a), (b), (c) or (d) of paragraph 1 of this entry, or such that it then falls within a different one of those points from the one within which it fell previously, and the date of ap- plication of that new or revised classification is after the date referred to in paragraph 1 or, as the case may be, para- graph 4 of this entry, that amendment shall, for the purposes of applying this entry to that substance, be treated as taking effect on the date of application of that new or revised classification.
	6. If Annex II or Annex IV to Regulation (EC) No 1223/2009 is amended after 4 January 2021 to list or change the listing of a substance such that the substance then becomes caught by point (e), (f) or (g) of paragraph 1 of this entry, or such that it then falls within a different one of those points from the one within which it fell previously, and the amendment takes effect after the date referred to in paragraph 1 or, as the case may be, paragraph 4 of this entry, that amendment shall, for the purposes of applying this entry to that substance, be treated as taking effect from the date falling 18 months after entry into force of the act by which that amendment was made. 7. Suppliers placing a mixture on the market for use for tattooing purposes shall ensure that, after 4 January 2022, the
	(a) the statement "Mixture for use in tattoos or permanent make-up";
	(b) a reference number to uniquely identify the batch; (c) the list of ingredients in accordance with the nomenclature established in the glossary of common ingredient names pursuant to Article 33 of Regulation (EC) No 1223/2009, or in the absence of a common ingredient name, the IUPAC name. In the absence of a common ingredient name or IUPAC name, the CAS and EC number. Ingredients shall be listed in descending order by weight or volume of the ingredients at the time of formulation. "Ingredient" means any substance added during the process of formulation and present in the mixture for use for tattooing purposes. Im- purities shall not be regarded as ingredients. If the name of a substance, used as ingredient within the meaning of this entry. is already required to be stated on the label in accordance with Regulation (EC) No 1272/2008. that ingredi-
	ent does not need to be marked in accordance with this Regulation; (d) the additional statement "pH regulator" for substances falling under point (d)(i) of paragraph 1; (e) the statement "Contains nickel. Can cause allergic reactions." if the mixture contains nickel below the concentra-
	tion limit specified in Appendix 13; (f) the statement "Contains chromium (VI). Can cause allergic reactions." if the mixture contains chromium (VI) below the concentration limit specified in Appendix 13; (g) safety instructions for use insofar as they are not already required to be stated on the label by Regulation (EC) No 1272/2008.
	The information shall be clearly visible, easily legible and marked in a way that is indelible. The information shall be written in the official language(s) of the Member State(s) where the mixture is placed on the market, unless the Member State(s) concerned provide(s) otherwise.
	Where necessary because of the size of the package, the information listed in the first subparagraph, except for point (a), shall be included instead in the instructions for use.
	Before using a mixture for tattooing purposes, the person using the mixture shall provide the person undergoing the procedure with the information marked on the package or included in the instructions for use pursuant to this para- graph. 8. Mixtures that do not contain the statement "Mixture for use in tattoos or permanent make-up" shall not be used for

8. Mixtures that do not contain the statement "Mixture for use in tattoos or permanent make-up" shall not be used for tattooing purposes.



Lead(II) acetate trihydrate ROTI®METIC 99,999 % (5N)

article number: **1L50**

Legend

9. This entry does not apply to substances that are gases at temperature of 20 °C and pressure of 101,3 kPa, or generate a vapour pressure of more than 300 kPa at temperature of 50 °C, with the exception of formaldehyde (CAS No 50-00-0, EC No 200-001-8).

10. This entry does not apply to the placing on the market of a mixture for use for tattooing purposes, or to the use of a mixture for tattooing purposes, when placed on the market exclusively as a medical device or an accessory to a medical device, within the meaning of Regulation (EU) 2017/745, or when used exclusively as a medical device or an accessory to a medical device, within the same meaning. Where the placing on the market or use may not be exclusively as a medical device or an accessory to a medical device or an accessory to a medical device, the requirements of Regulation (EU) 2017/745 and of this Regulation shall apply cumulatively.

List of substances subject to authorisation (REACH, Annex XIV)/SVHC - candidate list

Substance of Very High Concern (SVHC)

Name acc. to invent- ory	CAS No	Listed in	Remarks	Latest ap- plication date	Sunset date	Date of in- clusion
lead di(acetate)	301-04- 2	Candidate list	Repr. A57c			16.12.2013

Legend

Candidate list Substances meeting the criteria referred to in Article 57 and for eventual inclusion in Annex XIV Repr. A57c Toxic for reproduction (article 57c)

Seveso Directive

2	2012/18/EU (Seveso III)						
	No	Dangerous substance/hazard categories	Qualifying quantity (tonnes) for the ap- plication of lower and upper-tier re- quirements	Notes			
	E1	environmental hazards (hazardous to the aquatic en- vironment, cat. 1)	100 200	56)			

Notation

56) Hazardous to the Aquatic Environment in category Acute 1 or Chronic 1

Deco-Paint Directive

VOC content	0 %
VOC content	0 ^g / _l

Industrial Emissions Directive (IED)

VOC content	0 %
VOC content	0 ^g /l

Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)

not listed

Regulation concerning the establishment of a European Pollutant Release and Transfer Register (PRTR)

not listed

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU



Lead(II) acetate trihydrate ROTI®METIC 99,999 % (5N)

article number: 1L50

Water Framework Directive (WFD)

ist of pollutants (WFD)				
Name of substance	Name acc. to inventory	CAS No	Listed in	Remarks
Lead(II) acetate trihydrate	lead compounds		b)	
Lead(II) acetate trihydrate	lead compounds	7439-92-1	c)	
Lead(II) acetate trihydrate	Substances and preparations, or the breakdown products of such, which have been proved to pos- sess carcinogenic or mutagenic properties or properties which may affect steroidogenic, thyroid, reproduction or other endocrine- related functions in or via the aquatic environment		a)	
Lead(II) acetate trihydrate	Metals and their compounds		a)	

Legend

a) b) c)

Indicative list of the main pollutants

List of priority substances in the field of water policy Environmental Quality Standards for Priority Substances and certain other pollutants

Regulation on the marketing and use of explosives precursors

not listed

Regulation on drug precursors

not listed

Regulation on substances that deplete the ozone layer (ODS)

not listed

Regulation concerning the export and import of hazardous chemicals (PIC)

chemicals subject to the international prior informed consent (PIC) procedure (the 'PIC procedure').

Name of substance	Name acc. to inventory	CAS No	Wt%	Category / subcat- egory	Use limita- tion
Lead(II) acetate trihydrate	lead compounds		100	i(2)	sr

Legend

i(2) sr

Sub-category: i(2) - industrial chemical for public use Use limitation: severe restriction (for the sub-category or sub-categories concerned) according to Union legislation

Regulation on persistent organic pollutants (POP)

not listed

Other information

Directive 94/33/EC on the protection of young people at work. Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

National inventories

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU



Lead(II) acetate trihydrate ROTI®METIC 99,999 % (5N)

article number: 1L50

Country	Inventory	Status
AU	AIIC	substance is listed
CA	DSL	substance is listed
CN	IECSC	substance is listed
EU	ECSI	substance is listed
EU	REACH Reg.	substance is listed
JP	CSCL-ENCS	substance is listed
KR	KECI	substance is listed
NZ	NZIoC	substance is listed
PH	PICCS	substance is listed
TW	TCSI	substance is listed
US	TSCA	substance is listed (ACTIVE)
VN	NCI	substance is listed

Legend	
AIIC	Australian Inventory of Industrial Chemicals
CSCL-ENCS	List of Existing and New Chemical Substances (CSCL-ENCS)
DSL	Domestic Substances List (DSL)
ECSI	EC Substance Inventory (EINECS, ELINCS, NLP)
IECSC	Inventory of Existing Chemical Substances Produced or Imported in China
KECI	Korea Existing Chemicals Inventory
NCI	National Chemical Inventory
NZIOC	New Zealand Inventory of Chemicals
PICCS	Philippine Inventory of Chemicals and Chemical Substances (PICCS)
	REACH registered substances
TCSI	Taiwan Chemical Substance Inventory
TSCA	Toxic Substance Control Act

15.2 Chemical safety assessment

No Chemical Safety Assessment has been carried out for this substance.

SECTION 16: Other information

Indication of changes (revised safety data sheet)

Section	Former entry (text/value)	Actual entry (text/value)	Safety- relev- ant
2.3		Endocrine disrupting properties: Does not contain an endocrine disruptor (ED) at a concentration of ≥ 0,1%.	yes
15.1	VOC content: 0 % 0 ^g / _l	VOC content: 0 %	yes
15.1		VOC content: 0 ^g / _l	yes
15.1		National inventories: change in the listing (table)	yes

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU



Lead(II) acetate trihydrate ROTI®METIC 99,999 % (5N)

article number: 1L50

Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
ADR	Accord relatif au transport international des marchandises dangereuses par route (Agreement concern- ing the International Carriage of Dangerous Goods by Road)
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
DGR	Dangerous Goods Regulations (see IATA/DGR)
EC50	Effective Concentration 50 %. The EC50 corresponds to the concentration of a tested substance causing 50 % changes in response (e.g. on growth) during a specified time interval
EC No	The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identi- fier of substances commercially available within the EU (European Union)
ED	Endocrine disruptor
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
EmS	Emergency Schedule
ErC50	≡ EC50: in this method, that concentration of test substance which results in a 50 % reduction in either growth (EbC50) or growth rate (ErC50) relative to the control
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Na- tions
IATA	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
ICAO	International Civil Aviation Organization
ICAO-TI	Technical instructions for the safe transport of dangerous goods by air
IMDG	International Maritime Dangerous Goods Code
IMDG-Code	International Maritime Dangerous Goods Code
index No	The Index number is the identification code given to the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008
LC50	Lethal Concentration 50%: the LC50 corresponds to the concentration of a tested substance causing 50 % lethality during a specified time interval
LD50	Lethal Dose 50 %: the LD50 corresponds to the dose of a tested substance causing 50 % lethality during a specified time interval
NLP	No-Longer Polymer
PBT	Persistent, Bioaccumulative and Toxic
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
Repr.	Reproductive toxicity
SVHC	Substance of Very High Concern
VOC	Volatile Organic Compounds
vPvB	Very Persistent and very Bioaccumulative

Key literature references and sources for data

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures. Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU.

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU



Lead(II) acetate trihydrate ROTI®METIC 99,999 % (5N)

article number: 1L50

Agreement concerning the International Carriage of Dangerous Goods by Road (ADR). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

List of relevant phrases (code and full text as stated in section 2 and 3)

Code	Text
H360Df	May damage the unborn child. Suspected of damaging fertility.
H373	May cause damage to organs (central nervous system, blood, immune system, kidney) through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.