

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Version 6.7

Revision Date 21.08.2021

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GENERIC EU MSDS - NO COUNTRY SPECIFIC DATA - NO OEL DATA

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1 Product identifiers**

Product name : Lead standard solution traceable to SRM from NIST Pb(NO₃)₂ in HNO₃ 0.5 mol/l 1000 mg/l Pb Certipur®

Product Number : 1.19776

Catalogue No. : 119776

Brand : Millipore

UFI : HQ50-F6UR-F990-H6VE

REACH No. : This product is a mixture. REACH Registration Number see section 3.

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

Identified uses : Reagent for analysis

1.3 Details of the supplier of the safety data sheet

Company : Merck KGaA
Frankfurter Str. 250
D-64271 DARMSTADT

Telephone : +49 (0)6151 72-0

Fax : +49 6151 727780

E-mail address : TechnicalService@merckgroup.com

1.4 Emergency telephone

Emergency Phone # : +(44)-870-8200418 (CHEMTREC (GB))
+(353)-19014670 (CHEMTREC Ireland)
001-803-017-9114 (CHEMTREC India)

SECTION 2: Hazards identification**2.1 Classification of the substance or mixture****Classification according to Regulation (EC) No 1272/2008**

Corrosive to Metals (Category 1), H290

Skin irritation (Category 2), H315

Eye irritation (Category 2), H319

For the full text of the H-Statements mentioned in this Section, see Section 16.



2.2 Label elements

Labelling according Regulation (EC) No 1272/2008

Pictogram



Signal word Warning

Hazard statement(s)

H290 May be corrosive to metals.
H315 Causes skin irritation.
H319 Causes serious eye irritation.

Precautionary statement(s)

P234 Keep only in original packaging.
P264 Wash skin thoroughly after handling.
P280 Wear protective gloves/ eye protection/ face protection.
P302 + P352 IF ON SKIN: Wash with plenty of water.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332 + P313 If skin irritation occurs: Get medical advice/ attention.

Supplemental Hazard Statements none

Contains: Lead(II) nitrate. May produce an allergic reaction.

Reduced Labeling (<= 125 ml)

Pictogram none

Signal word Warning

Hazard statement(s) none

Precautionary statement(s) none

Supplemental Hazard Statements none

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Component		Classification	Concentration
nitric acid			
CAS-No.	7697-37-2	Ox. Liq. 2; Met. Corr. 1;	≥ 1 - < 3 %
EC-No.	231-714-2	Acute Tox. 3; Skin Corr.	
Index-No.	007-004-00-1	1A; Eye Dam. 1; H272,	
Registration number	01-2119487297-23-XXXX	H290, H331, H314, H318	
		Concentration limits: >= 1 %: Met. Corr. 1, H290; 0 - < 70,0001 %:	



		Acute Tox. 3, H331; >= 70,0001 %: Acute Tox. 1, H330; >= 99 %: Ox. Liq. 2, H272; >= 20 %: Skin Corr. 1A, H314; 5 - < 20 %: Skin Corr. 1B, H314; 65 - < 99 %: Ox. Liq. 3, H272; >= 3 %: Eye Dam. 1, H318; 1 - < 3 %: Eye Irrit. 2, H319; 1 - < 5 %: Skin Irrit. 2, H315;	
Lead(II) nitrate Included in the Candidate List of Substances of Very High Concern (SVHC) according to Regulation (EC) No. 1907/2006 (REACH)			
CAS-No.	10099-74-8	Ox. Sol. 2; Acute Tox. 4; Eye Dam. 1; Skin Sens. 1; Repr. 1A; STOT RE 1; Aquatic Acute 1; Aquatic Chronic 1; H272, H302, H332, H318, H317, H360FD, H372, H400, H410 M-Factor - Aquatic Acute: 10 M-Factor - Aquatic Chronic: 1	>= 0,1 - < 0,25 %
EC-No.	233-245-9		
Index-No.	082-001-00-6		
Registration number	01-2119492475-28-XXXX		

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1 Description of first-aid measures

General advice

Show this material safety data sheet to the doctor in attendance.

If inhaled

After inhalation: fresh air. Consult doctor if feeling unwell.

In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.

In case of eye contact

After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.

If swallowed

After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

No data available



SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

5.2 Special hazards arising from the substance or mixture

Nitrogen oxides (NO_x)

Not combustible.

Ambient fire may liberate hazardous vapours.

5.3 Advice for firefighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

5.4 Further information

Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

For personal protection see section 8.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up with liquid-absorbent and neutralising material (e.g. Chemizorb® H⁺, Merck Art. No. 101595). Dispose of properly. Clean up affected area.

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

No metal containers.

Tightly closed.

Storage class

Storage class (TRGS 510): 8B: Non-combustible, corrosive hazardous materials



7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Ingredients with workplace control parameters

8.2 Exposure controls

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses

Skin protection

required

Body Protection

protective clothing

Respiratory protection

required when vapours/aerosols are generated.

Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

Recommended Filter type: Filter type ABEK

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

Control of environmental exposure

Do not let product enter drains.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

- | | |
|--|----------------------------------|
| a) Appearance | Form: liquid
Color: colorless |
| b) Odor | odorless |
| c) Odor Threshold | Not applicable |
| d) pH | ca.0,5 at 20 °C |
| e) Melting point/freezing point | No data available |
| f) Initial boiling point and boiling range | No data available |
| g) Flash point | Not applicable |



h)	Evaporation rate	No data available
i)	Flammability (solid, gas)	No data available
j)	Upper/lower flammability or explosive limits	No data available
k)	Vapor pressure	No data available
l)	Vapor density	No data available
m)	Density	1,02 g/cm ³ at 20 °C
	Relative density	No data available
n)	Water solubility	at 20 °C soluble
o)	Partition coefficient: n-octanol/water	No data available
p)	Autoignition temperature	Not applicable
q)	Decomposition temperature	No data available
r)	Viscosity	Viscosity, kinematic: No data available Viscosity, dynamic: No data available
s)	Explosive properties	Not classified as explosive.
t)	Oxidizing properties	none

9.2 Other safety information

No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

No data available

10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

10.3 Possibility of hazardous reactions

Violent reactions possible with:

The generally known reaction partners of water.

Generates dangerous gases or fumes in contact with:

Metals

metal alloys

Release of:

nitrous gases

Hydrogen

Violent reactions possible with:

The generally known reaction partners of water.

10.4 Conditions to avoid

no information available

10.5 Incompatible materials

Metals, metal alloys(generation of hydrogen)CelluloseMetals

Millipore- 1.19776

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The life science business of Merck operates as MilliporeSigma in the US and Canada



10.6 Hazardous decomposition products

In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Mixture

Acute toxicity

Symptoms: Irritations of mucous membranes in the mouth, pharynx, oesophagus and gastrointestinal tract.

Acute toxicity estimate Inhalation - 4 h - > 20 mg/l
(Calculation method)

Symptoms: Possible symptoms:, mucosal irritations
Dermal: No data available

Skin corrosion/irritation

Mixture causes skin irritation.

Serious eye damage/eye irritation

Mixture causes serious eye irritation.

Respiratory or skin sensitization

Mixture may produce an allergic reaction.

Germ cell mutagenicity

No data available

Carcinogenicity

No data available

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

11.2 Additional Information

Other dangerous properties can not be excluded.

Handle in accordance with good industrial hygiene and safety practice.

Components

nitric acid

Acute toxicity

Oral: No data available

Acute toxicity estimate Inhalation - 4 h - 2,5 mg/l
(Expert judgment)

Dermal: No data available



Skin corrosion/irritation

Skin - Rabbit

Result: Causes severe burns.

Remarks: (IUCLID)

Causes poorly healing wounds.

Serious eye damage/eye irritation

Eyes - Rabbit

Result: Causes burns.

Remarks: (IUCLID)

Causes serious eye damage.

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

Test Type: Ames test

Test system: Salmonella typhimurium

Result: negative

Carcinogenicity

No data available

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure**Aspiration hazard**

No data available

Lead(II) nitrate**Acute toxicity**

Oral: No data available

Acute toxicity estimate Inhalation - 1,6 mg/l

(Expert judgment)

Symptoms: Possible damages:, mucosal irritations

LD50 Dermal - Rat - male and female - > 2.000 mg/kg

(OECD Test Guideline 402)

Remarks: (in analogy to similar products)

The value is given in analogy to the following substances: Lead(II) oxide red

Skin corrosion/irritation

Skin - In vitro study

Result: non-corrosive

(OECD Test Guideline 431)

Skin - In vitro study

Result: No skin irritation - 42 min

(OECD Test Guideline 439)

Serious eye damage/eye irritation

Eyes - Bovine cornea

Result: Causes serious eye damage. - 4 h



(OECD Test Guideline 437)

Respiratory or skin sensitization

Local lymph node assay (LLNA) - Mouse

Result: positive

(OECD Test Guideline 429)

Germ cell mutagenicity

Test Type: Ames test

Test system: Salmonella typhimurium

Result: negative

Remarks: (in analogy to similar products)

(ECHA)

Species: Rat - female - Red blood cells (erythrocytes)

Result: positive

Remarks: (in analogy to similar products)

(ECHA)

The value is given in analogy to the following substances: lead(II) acetate

Species: Monkey - male - lymphocyte

Result: positive

Remarks: (in analogy to similar products)

(ECHA)

Species: Mouse - male - Liver cells

Result: negative

Remarks: (in analogy to similar products)

(ECHA)

Carcinogenicity

No data available

Reproductive toxicity

May damage the unborn child. Positive evidence from human epidemiological studies.

May damage fertility. Positive evidence from human epidemiological studies.

Specific target organ toxicity - single exposure

Acute inhalation toxicity - Possible damages: , mucosal irritations

Specific target organ toxicity - repeated exposure

Causes damage to organs through prolonged or repeated exposure. - Blood, Central nervous system, Immune system, Kidney

Aspiration hazard

No data available

SECTION 12: Ecological information

12.1 Toxicity

Mixture

No data available

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available



12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects

Depending on the concentration, phosphorus and/or nitrogen compounds may contribute to the eutrophication of drinking- water supplies.

Hazard for drinking water supplies.

No ecological problems are to be expected when the product is handled and used with due care and attention.

Components

nitric acid

No data available

Lead(II) nitrate

Toxicity to fish	static test LC50 - Oncorhynchus mykiss (rainbow trout) - 0,1 mg/l - 96 h Remarks: (ECHA)
Toxicity to daphnia and other aquatic invertebrates	EC50 - Daphnia magna (Water flea) - 1,8 mg/l - 48 h Remarks: (ECOTOX Database)
Toxicity to algae	EC50 - algae - 0,024 - 0,029 mg/l - 28 h Remarks: (Lit.)

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

See www.retrologistik.com for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

SECTION 14: Transport information

14.1 UN number

ADR/RID: 3264

IMDG: 3264

IATA: 3264

14.2 UN proper shipping name

ADR/RID: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (nitric acid)

IMDG: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. ()

IATA: Corrosive liquid, acidic, inorganic, n.o.s. (nitric acid)

14.3 Transport hazard class(es)

ADR/RID: 8

IMDG: 8

IATA: 8



14.4 Packaging group

ADR/RID: III

IMDG: III

IATA: III

14.5 Environmental hazards

ADR/RID: no

IMDG Marine pollutant: no

IATA: no

14.6 Special precautions for user

No data available

SECTION 15: Regulatory information

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

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

Authorisations and/or restrictions on use

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII) : Lead(II) nitrate

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59) : Lead(II) nitrate

Other regulations

Take note of Dir 94/33/EC on the protection of young people at work.

15.2 Chemical Safety Assessment

For this product a chemical safety assessment was not carried out

SECTION 16: Other information

Full text of H-Statements referred to under sections 2 and 3.

H272	May intensify fire; oxidizer.
H290	May be corrosive to metals.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H360FD	May damage fertility. May damage the unborn child.
H372	Causes damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of



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