SAFETY DATA SHEET

Version: 7.0/EN

[In accordance with the criteria of Regulation No 1907/2006 (REACH) as amended]

Section 1: Identification of the substance/mixture and of the company

1.1 Product identifier

Trade name: **Lead alloys with arsenic up to 0.3%**

Product type: solid – lead alloy ingots
UFI number: 2200-U0CW-6002-QA6G

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

Relevant identified uses:

- industrial
  Production of batteries, production of sheet metal, tubes, lead shot, production of products: cast, rolled, extruded, production of lead steel, production of lead powder, production of glass, production of ionising radiation shielding, production of electrical cable sheathing, production of loads, ballasts, production of lead ammunition
- professional
  Use of lead solder, products that may come into contact with the skin, installation and maintenance of lead sheets, installation of lead acid batteries, use of lead steels, use of inert anodes.
- consumer
  Use of lead products that may come into contact with the skin, use of lead sheets, use of batteries, soldering, use of lead ammunition, handling of spent ammunition, and use of products where exposure is not expected.

Uses advised against: not determined

NOTE: For professional users only.

1.3 Details of the supplier of the safety data sheet

Manufacturer: **BATERPOL SA**

Address: ul. Obrońców Westerplatte 108, 40-395 Katowice, Poland

Telephone/Fax: +48 032 779 2000 /+48 032 779 2009

E-mail address for a person responsible for safety data sheet: biuro@theta-doradztwo.pl

1.4 Emergency telephone number

Telephone/Fax: 112 (emergency number)

Section 2: Hazards identification

2.1 Classification of the substance or mixture*

Repr. 1A H360FD, Lact. H362

May damage fertility. May damage the unborn child. May cause harm to breast-fed children.

*Environmental classification taking into account Annex IV.5.6 of the Guidance on the Application of the CLP Criteria (Version IV, November 2024) and the Eurometaux and ARCHE guidelines (Guidance Note on the environmental classification of complex inorganic materials (CIMs) containing Pb, ed. 12/08/2025)

2.2 Label elements

Labelling is not required. According to art. 23 and point 1.3.4.1. of Annex I to the CLP Regulation (1272/2008/EC), alloys do not need to be labelled in accordance with the provisions of this Annex if they do not pose a risk to human health from inhalation, ingestion or contact with the skin or the aquatic environment in the form in which they are placed on the market.

2.3 Other hazards

Lead fumes and vapour appearing during the soldering processes are harmful and irritating to the respiratory system. Lead compounds, such as oxides have poisonous and mutagenic effect, they can accumulate in organisms and may impair fertility.

Lead is not a substance classified as a PBT or vPvB, nor is it assessed as an endocrine disruptor.

The components of the mixture are not classified as PBT or vPvB - the PBT or vPvB criteria according to Annex XIII of REACH do not apply to inorganic substances. The components of the mixture are not evaluated as endocrine disruptors.

Section 3: Composition/information on ingredients

3.1 Substances

Not applicable.

3.2 Mixtures

metallic lead (Pb)

Concentration range:	85.00 - 99.95%
CAS number:	7439-92-1
EC number:	231-100-4
Index number:	082-014-00-7
REACH registration number:	substance is excluded from registration duty, according to art. 2 (recovery substance)
Classification acc. to 1272/2008/EC:	Repr. 1A H360FD, Lact. H362, Aquatic Chronic 1 H410

antimony (Sb)

Concentration range:	0 - 17%
CAS number:	7440-36-0
WE number:	231-146-5
Index number:	-
REACH registration number:	01-2119475609-24-XXXX
Classification acc. to 1272/2008/EC:	the substance is not classified as hazardous

tin (Sn)

Concentration range:	0 - 3%
CAS number:	7440-31-5
EC number:	231-141-8
Index number:	-
REACH registration number:	01-2119486474-28-XXXX
Classification acc. to 1272/2008/EC:	the substance is not classified as hazardous

selenium (Se)

Concentration range:	0 - 0.4%
CAS number:	7782-49-2
EC number:	231-957-4
Index number:	034-001-00-2

REACH registration number: 01-2119981706-25-XXXX
Classification acc. to 1272/2008/EC: Acute Tox. 3 H331, Acute Tox. 3 H301, STOT RE 2 H373, Aquatic Chronic 4 H413

arsenic (As)
Concentration range: < 0,3%
CAS number: 7440-38-2
EC number: 231-148-6
Index number: 033-001-00-X
REACH registration number: 01-2120757350-59-XXXX
Classification acc. to 1272/2008/EC: Acute Tox. 3 H331, Acute Tox. 3 H301, Aquatic Acute 1 H400, Aquatic Chronic 1 H410 (M=1)

aluminium metalic (Al)
Concentration range: 0 - 0.5%
CAS number: 7429-90-5
EC number: 231-072-3
Index number: -
REACH registration number: 01-2119529243-45-XXXX
Classification acc. to 1272/2008/EC: the substance is not classified as hazardous

calcium (Ca)
Concentration range: 0 - 0.5%
CAS number: 7440-70-2
EC number: 231-179-5
Index number: 20-001-00-X
REACH registration number: 01-2119516038-45-XXXX
Classification acc. to 1272/2008/EC: Water-react. 2 H261

copper (Cu)
Concentration range: 0 - 0.1%
CAS number: 7440-50-8
EC number: 231-159-6
Index number: -
REACH registration number: substance is excluded from registration duty, according to art. 2 (recovery substance)
Classification acc. to 1272/2008/EC: the substance is not classified as hazardous

silver (Ag)
Concentration range: 0 - 1.5%
CAS number: 7440-22-4
EC number: 231-131-3
Index number: -
REACH registration number: substance is excluded from registration duty, according to art. 2 (recovery substance)
Classification acc. to 1272/2008/EC: the substance is not classified as hazardous
A maximum occupational concentration limit has been set for the substance at the EU level.

sulphur (S)
Concentration range: 0 - 0.02%
CAS number: 7704-34-9
EC number: 231-722-6
Index number: 016-094-00-1
REACH registration number: 01-2119487295-27-XXXX
Classification acc. to 1272/2008/EC: Skin Irrit. 2 H315

Full text of each relevant H phrase is given in section 16.

Section 4: First aid measures

4.1 Description of first aid measures

General information: Acute symptoms of poisoning may appear after an exposure to a very high concentration of dust or fumes lasting for several days, or in course of chronic exposure to lead in concentration exceeding the admissible hygienic standards.

Skin contact: wash skin with plenty of water with soap. In case of worrying symptoms, contact a physician.

Eye contact: rinse with plenty of water for 10-15 min. Avoid strong water jet - risk of corneal damage. Protect the non-irritated eye, remove contact lenses. Consult an ophthalmologist.

If ingested: exposure by this route usually does not occur. If swallowed, rinse the mouth with water. Consult a physician.

After respiratory exposure: in case of ill feeling, take the affected person to fresh air, provide medical assistance.

4.2 Most import ant symptoms and effects, both acute and delayed

Eye contact: may cause redness, tearing, irritation. Burns are possible when working with molten product.

Skin contact: no adverse health effects are observed as a result of contact of the metallic alloy in solid form (lead ingot) with the skin. Burns are possible when working with molten product. Possible adverse effects in case of contact with the lead compounds, processed product or product being processed.

After inhalation: no negative health effects are observed as a result of contact with the metallic alloy in the form of a solid (lead ingot). If working with molten product, possible coughing, respiratory irritation. Possible adverse effects in case of contact with the lead compounds, processed product or product being processed, e.g., whole abdomen pain (intestinal colic), usually preceded by several days of obstructions. Also, increased blood pressure may be observed.

After ingestion: exposure by this route usually does not occur due to the size and form of the product.

Other effects of exposure: may harm fertility. May damage the unborn child. May cause harm to breast-fed children. Harmful to aquatic life with long lasting effects.

4.3 Indication of any immediate medical attention and special treatment needed

Physician makes a decision regarding further medical treatment after thoroughly examination of the injured.

Section 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media: CO_2, extinguishing powder, water haze, foam. Select the extinguishing agent according to the materials in the immediate vicinity.

Unsuitable extinguishing media: direct water stream – risk of fire propagation.

5.2 Special hazards arising from the substance or mixture

Toxic gases, vapours and fumes containing poisonous lead compounds can be released during combustion. Avoid breathing combustion products, they can pose a health risk.

5.3 Advice for firefighters

Personal protection typical in case of fire. Do not stay in the fire endangered area without suitable chemical-resistant clothing and a self-contained breathing apparatus.

Section 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency cleanup personnel: limit the access of the public to the accident area until appropriate cleanup operations are completed.

For those eliminating the consequences of the emergency: ensure that only trained personnel carry out the removal of the emergency and its consequences. Use personal protective equipment in accordance with section 8 of the safety data sheet.

6.2 Environmental precautions

In case of release of large amounts of the product, it is necessary to take appropriate steps to prevent it from spreading into the environment. Notify relevant emergency services.

6.3 Methods and material for containment and cleaning up

Collect mechanically. Direct the collected material for reuse or treat it as waste.

6.4 Reference to other sections

Appropriate conduct with waste product – see section 13.
Appropriate personal protective equipment – see section 8.

Section 7: Handling and storage

7.1 Precautions for safe handling

Handle in accordance with good occupational hygiene and safety practices. Ensure adequate ventilation. Before break and after work wash hands. Avoid skin and eyes contamination. Pregnant and lactating women should not work with this product. See also section 8 of SDS.

7.2 Conditions for safe storage, including any incompatibilities

Keep in dry place. Keep away from strong acids and bases. Do not store together with food and beverages. Protect from mechanical damages and all deformations. Do not exceed the admissible unit load of the storage area. Do not place directly onto the soil ground.

7.3 Specific end use(s)

No information on applications other than those mentioned in subsection 1.2.

Section 8: Exposure controls/personal protection

8.1 Control parameters

Specification	OEL	STEL	CEV	ACBM
Lead [CAS 7439-92-1] and its inorganic compounds, except lead(V) arsenate(II) and lead(II) chromate(VI) - converted to Pb - inhalable fraction	0.05 mg/m^3	—	—	500 µg/l [1)]
				700 µg/l [2)]
				8 mg/l converted to an average urine density of 1.016[3)]
Arsenic [CAS 7440-38-2] and its inorganic compounds - converted to As	0.01 mg/m^3	—	—	70 µm/l converted to a mean urine density of 1.024[4)]
Selenium [CAS 7782-49-2] and its compounds, except selenium - converted to Se	0.1 mg/m^3	0.3 mg/m^3	—	—
Antimony [CAS 7440-36-0] and its inorganic compounds, except stiban - converted to Sb	0.5 mg/m^3	—	—	—
Tin [CAS 7440-31-5] and its inorganic compounds, except stannane - converted to Sn - inhalable fraction	2 mg/m3	—	—	—
Silver - inhalable fraction [CAS 7440-22-4]	0.05 mg/m3	—	—	—
Copper [CAS 7440-50-8] and its inorganic compounds - converted to Cu	0.2 mg/m3	—	—	—

Legal basis: Journal of Laws 2018 item 1286, as amended.

1) Measured substance: lead; biological material: blood.
2) Measured substance: ZPP; biological material: blood.
3) Measured substance: deltaaminolevulinic acid; biological material: urine.
4) Measured substance: Arsenic + MMA + DMA; biological material: urine.

DNEL value for lead

Population	DNEL oral mg/kg/day	DNEL dermal mg/kg/day	DNEL inhalation mg/m^3	DNEL Systemic (in blood) µg/dm^3	Exposure
General population	—	—	—	—	Long-term exposure - systemic effect
Employees	—	—	—	20 5 (pregnant women)	Long-term exposure - systemic effect
General population	—	—	—	—	Long-term exposure - local effect
Employees	—	—	—	—	Long-term exposure - local effect

PNEC value

PNEC	Value
Marine water	3.1 µg/l
Fresh water	3.3 µg/l
Sediment (fresh water)	186 mg/kg
Sediment (marine water)	168 mg/kg
STP	0.1 mg/l

Recommended monitoring procedures

Use the procedures for monitoring concentrations of hazardous materials in the air and procedures for the control of air cleanliness in the working environment - where available and reasonable - in accordance with relevant Polish or European standards taking into account the conditions at the site of exposure and the appropriate measurement methods adapted to the working conditions. The type, nature, and frequency of measurements and tests shall comply with the requirements contained in national regulations.

8.2. Exposure controls

Industrial hygiene

Use the product in accordance with good occupational hygiene and safety practices. Local ventilation of each workstation and general ventilation of the room should be provided. Do not eat, drink or smoke at work. Before break and after work carefully wash hands.

Personal protective equipment

The need for and selection of appropriate personal protective equipment should take into account the type of hazard posed by the product, the conditions in the workplace and the way the product is handled. Personal protective equipment should meet the requirements specified in the relevant standards and regulations. The employer is obliged to provide protection measures appropriate to the activities performed in a workplace and meeting all quality requirements, including maintenance and cleaning. Any contaminated or damaged PPE must be replaced immediately.

Hand and body protection - not required. When working with molten product, protect yourself from thermal exposure.

Eye protection - not required. When working with molten product, protect yourself from thermal exposure.

Respiratory protection - not required. When working with molten product, wear respiratory protection appropriate to the working conditions.

The information on personal protective equipment given above applies to contact with solid lead alloy (lead ingot). Wearing protective gloves, protective clothes and protective mask is necessary in case of contact with the lead compounds, processed product or product being processed.

In case of exposure to lead dust or fumes in the working environment, technical and organisational actions must be undertaken in the first place in order to lower the lead concentration. If the substance's concentration within the workstation is defined and known, the personal protection equipment (clothes, gloves, goggles, respiratory protection equipment) must be selected taking under consideration the hazard level present within the given workstation and actions performed by the employee.

Environmental exposure controls

Do not allow the large quantity of mixture to contaminate surface water/ground water.

Section 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties*

Physical state:	solid
Colour:	grey, metallic

Odour:	odourless
Melting point/freezing point:	327.4 °C
Boiling point or initial temperature	
Initial boiling point and boiling range	1620 °C
Flammability of materials:	non-flammable product
Lower and upper flammability or explosive limits:	not determined
Flash point:	not determined
Auto-ignition temperature:	not determined
Decomposition temperature:	not determined
pH:	not determined
Viscosity:	not determined
Solubility:	soluble in hydrochloric acid, sulphur acid, acetic acid, concentrated and hot nitrogen acid, some amount of product can soluble in water without CO_2
Partition coefficient: n-octanol/water (log factor value):	not determined
Vapour pressure (20°C):	not determined
Density or relative density:	11.34 g/cm^3
Relative vapour density:	not determined
Particle characteristics:	not determined

** the values given are for perfectly pure lead*

9.2 Other information

No additional data available.

Section 10: Stability and reactivity

10.1 Reactivity

The product does not undergo hazardous polymerization.

10.2 Chemical stability

With proper use and storage, the product is stable.

10.3 Possibility of hazardous reactions

No data.

10.4 Conditions to avoid

No data.

10.5 Incompatible materials

Acids and bases, fluoride, peroxide hydrogen, picrates, azides

10.6 Hazardous decomposition products

No data.

Section 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Information for components

lead

LD_{50} (rat, oral)	> 10000 mg/kg	source: IUCLID (2000), study performed by LPT, 1972, Hamburg, Germany
LD_{50} (rat, oral)	> 5000 mg/kg	source: Bien, E. (03.12.2003), Harlan, Walsrode, Germany
$LC50$ (rat, dust inhalation)	> 5 mg/l (OECD 403)	source: Chevalier, 2004
LD_{50} (rabbit, dermal)	> 2000 mg/kg	source: Bien, E. (09.12.2003), Harlan, Walsrode, Germany,

Information for mixture:

Based on available data, the classification criteria are not met.

Skin corrosion/irritation

Information for components

lead

Irritation (rabbit)	no irritation (OECD 404)	source: Bien, E. (03.12.2003), Harlan, Walsrode, Germany

Information for mixture:

Based on available data, the classification criteria are not met.

Serious eye damage/irritation

Information for components

lead

Irritation (rabbit)	no irritation (OECD 405)	source: Bien, E. (03.12.2003), Harlan, Walsrode, Germany

Information for mixture:

Based on available data, the classification criteria are not met.

Respiratory or skin sensitization

Based on available data, the classification criteria are not met.

Germ cell mutagenicity

Information for components

lead

In vitro and in vivo tests – negative results.

Information for mixture:

Based on available data, the classification criteria are not met.

Carcinogenicity

Information for components

lead

LOAEL	500 ppm source: Azar et. al (1972)
NOAEL	7.8 mg/kg/d source: Azar et. al (1972)

Information for mixture:

Based on available data, the classification criteria are not met.

Reproductive toxicity

May damage fertility. May damage the unborn child. May cause harm to breast-fed children.

Specific target organ toxicity – single exposure

Based on available data, the classification criteria are not met.

Specific target organ toxicity – repeated exposure

Based on available data, the classification criteria are not met.

Aspiration hazard

Based on available data, the classification criteria are not met.

Additional information

The lead compounds damage the peripheral and central nervous system and may cause anaemia, mainly as a result of inhibition of red blood cells haemoglobin synthesis. The lead accumulates in the system, mainly in bones and in kidneys and other tissues. Acute symptoms of poisoning may appear after an exposure to a very high concentration of dust or fumes lasting for several days and exceeding the admissible OEL or ACBM values. The exposure symptoms include: abdominal pains, diarrhoea preceded by obstruction, loss of appetite, metallic aftertaste in the mouth, nausea, vomiting, tiredness, insomnia, muscular weakness, joints pain, excitability, headaches and vertigo, increased blood pressure. Anaemia, and damages of kidneys, liver, female genital glands and central nervous system can be observed. The lead compounds cause strong irritations and oversensitivity of the respiratory system, difficulties with breathing, short breath and asthmatic discomforts. There exists the danger of accumulation in the organism.

11.2 formation on other hazards

Endocrine disrupting properties

The components of the mixture are not evaluated as endocrine disruptors.

Other information

Not known.

Section 12: Ecological information

12.1 Toxicity

Information for components

Lead

pH range	Reference values (µg dissolved Pb/L)	
	Acute reference value	Chronic reference value
pH 5.5-6.5	40.8 (critical species: *P.promelas*)	17.8 (critical species: *C.carpio*)
pH >6.5-7.5	32.5 (critical species: *P.subcapitata*)	8.0 (critical species: *P.subcapitata*)
pH >7.5-8.5	20.5 (critical species: *P.subcapitata*)	6.2 (critical species: *P.subcapitata*)

Acute Toxicity

Test Organisms:	Endpoint	Range of values
Fish: *Pimephales promelas, Oncorhynchus mykiss*	96h-LC_{50}	pH 5.5 – 6.5: 40.8 – 810.0 µg Pb/L pH >6.5 – 7.5: 52.0 – 3598.0 µg Pb/L pH > 7.5 – 8.5: 113.8 – 3249.0 µg Pb/L

Test Organisms:	Endpoint	Range of values
Invertebrates: *Daphnia magna, Ceriodaphnia dubia*	48h-LC_{50}	pH 5.5 – 6.5: 73.6 – 655.6 µg Pb/L pH >6.5 – 7.5: 28.8 – 1179.6 µg Pb/L pH > 7.5 – 8.5: 26.4 – 3115.8 µg Pb/L
Algae: *Pseudokirchneriella subcapitata, Chlorella kesslerii, Chlamydomonas reinhardtii*	72h-ErC_{50} (growth rate)	pH 5.5 – 6.5: 72.0 – 388.0 µg Pb/L pH >6.5 – 7.5: 26.6 – 79.5 µg Pb/L pH > 7.5 – 8.5: 20.5 – 49.6 µg Pb/L

Chronic toxicity

Test organisms	Range of values (EC_{10}, NOEC)
Aquatic freshwater toxicity data	
Fish: *Oncorhynchus mykiss, Salmo salar, Pimephales promelas, Salvelinus fontinalis, Ictalurus punctatus, Lepomis macrochirus, Salvelinus namaycush, Cyprinus carpio, Acipenser sinensis, Acipenser transmontanus*	17.8 – 1558.6 µg Pb/L
Invertebrates: *Hyalella azteca, Lymnaea palustris, Ceriodaphnia dubia, Lymnaea stagnalis, Philodina rapida, Daphnia magna, Alona rectangular, Diaphanosoma birgei, Chironomus tentans, Brachionus calyciflorus, Chironomus riparius, Baetis tricaudatus.*	1.7– 963.0 µg Pb/L
Algae: *Pseudokirchneriella subcapitata, Chlorella kesslerii, Chlamydomonas reinhardtii.*	6.1 – 190.0 µg Pb/L
Higher plants: *Lemna minor*	85.0 – 1025.0 µg Pb/L
The most sensitive toxicity endpoint was (reproduction; *C.dubia*): 1.7 µg/dL	
Aquatic marine toxicity data	
Fish: *Cyprinodon variegatus, Atherinops affinis, Mugil cephalus, Terapon jarbua*	7.5– 437.0 µg Pb/L
Invertebrates: *Mytilus trossolus, Americamysis bahia, Mytilus galloprovincialis, Neanthes arenaceodentata, Strongylocentrotus purpuratus, Paracentrotus lividus, Dendraster excentricus, Tisbe battagliai, Crassotrea gigas, Oithona similis, Evechinus chloroticus, Anadara trapezia, Argopecten purpuratus, Barnea australasiae, Fulvia tenuicostata, Irus crenatus, Spisula Trigonella, Xenostrobus securis, Perna viridis, Ruditapes decussatus, Acartia danae,*	5.7 – 1409.6 µg Pb/L
Algae: *Skeletonema costatum, Phaeodactylum tricornutum, Dunaliella tertiolecta, Cryothecomonas armigera, Odontella mobiliensis and Coscinodiscus centralis.*	8.7– 1234.0 µg Pb/L
Higher plants*: Champia parvula*	11.9µg Pb/L
The most sensitive toxicity endpoint was mortality (*O.similis):* 5.7 µg Pb/L.	
Sediment freshwater toxicity data	
Invertebrates: *Tubifex tubifex, Ephoron virgo, Hyalella azteca, Gammarus pulex, Lumbriculus variegatus, Hexagenia limbata, Chironomus tentans*	573.0 – 3390.0 mg Pb/kg dw
The most sensitive toxicity endpoint was reproduction (*T. tubifex*): 573.0 mg Pb/kg dw. Symptoms of toxicity include effects on survival, growth, and reproduction. Toxicity of lead in freshwater sediment is dependent on the acid volatile sulphide content (AVS) of the freshwater sediment.	
Sediment marine toxicity data	
Invertebrates: *Neanthes arenaceodentata, Leptocheirus plumulosus*	680.0 – 1291.0 mg Pb/kg dw
The most sensitive toxicity endpoint was growth (*N. arenaceodentata*): 680.0 mg Pb/kg dw. Symptoms of toxicity include effects on survival, growth, and reproduction	
Terrestrial toxicity data (values were determined in different topsoils with contrasting properties and spiked with soluble lead salts):	
Invertebrates: *Folsomia candida*, *Proisotoma minuta, Sinella curviseta, Eisenia fetida, Eisenia andrei, Dendrobaena rubida, Lumbricus rubellus, Aporrectodea caliginosa*	64 – 2445.0 mg Pb/kg dw
Plants: *Hordeum vulgare*, *Zea mays*, *Echinochloa crus-galli*, *Lolium perenne*, *Sorgum bicolor*, *Triticum aestivum*, *Oryza sativa* and *Avena sativa, Raphanus sativus, Lycopersicon esculentum, Lactuca sativa, Cucumis sativus, Picea rubens, Pinus taeda*	57.0 – 6774.0 mg Pb/kg dw
Micro-organisms: denitrification, N-mineralization, nitrification, basal respiration, substrate-induced respiration	97.0 – 7880.0 mg Pb/kg dw
The most sensitive toxicity endpoint was root yield (*H. vulgare*): 57 mg Pb/kg.	

Admissible concentration of lead in sewage is 0.1 mg/dm^3 for the heating industry and 0.5 mg/dm^3 for other sewage. Admissible level of lead in ambient air is 0.5 µg/m^3 when averaged over a calendar year.

Information for mixture

The mixture is not classified as hazardous to the environment. Environmental classification based on the Eurometaux and ARCHE guidelines (Guidance Note on the environmental classification of complex inorganic

materials (CIMs) containing Pb, ed. 12/08/2025) and Annex IV.5.6 of the Guidance on the Application of the CLP Criteria (Version IV, November 2024)

12.2 Persistence and degradability

Product is not biodegradable.

12.3 Bioaccumulative potential

Danger of bioaccumulation by aquatic organisms.

12.4 Mobility in soil

Product is low mobile in soil and in water. It is heavier than water, it settles to the bottom. Danger of absorption by aquatic organisms.

12.5 Results of PBT and vPvB assessment

Product is not a substance classified as PBT or vPvB - PBT or vPvB criteria in compliance with Annex XIII to the REACH Regulation do not apply to the inorganic substances.

12.6 Endocrine disrupting properties

The product does not contain ingredients included in the list established pursuant to Article 59(1) as having endocrine disrupting properties or ingredients with endocrine disrupting properties according to the criteria set forth in Regulation 2017/2100/EU or Regulation 2018/605/EU in concentrations equal to or greater than 0.1%.

12.7 Other adverse effects

This product does not affect global warming or the ozone layer depletion.

Section 13: Disposal considerations

13.1 Waste treatment methods

Recommendations for the mixture: dispose of in accordance with applicable regulations. Do not dispose of with municipal waste, do not dump into sewage system. Store remaining in original containers. Recommended method of waste disposal: recycling. The waste code should be given at the place of its production.

Disposal methods for used packaging: recovery / recycling / disposal of packaging waste should be carried out in accordance with applicable regulations. Only completely emptied packaging can be recycled.

EU legislation: European Parliament and Council directives: 2008/98/EC, as amended, and 94/62/EC, as amended.

Section 14: Transport information

14.1 UN number or ID number

The product is not classified as dangerous during transport. Classification based on Eurometaux and ARCHE guidelines (Guidance Note on the environmental classification of complex inorganic materials (CIMs) containing Pb, ed. 12/08/2025) and ADR/RID regulations.

14.2 UN proper shipping name

Not applicable.

14.3 Transport hazard class(es)

Not applicable.

14.4 Packing group

Not applicable.

14.5 Environmental hazards

The mixture does not pose a hazard to the environment as required by transportation regulations. The critical surface area (CSA) method was used for assessment.

14.6 Special precautions for user

Not required.

14.7 Bulk maritime transport in accordance with IMO instruments

Not applicable.

Section 15: Regulatory information

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

ADR agreement concerning the international carriage of dangerous goods by road.

IMDG Code International Maritime Dangerous Goods Code.

IATA Dangerous Goods Regulations.

Regulation No 1907/2006/EC of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and 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 No 1272/2008/EC of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 as amended.

Commission Regulation 2020/878/EU of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

2000/39/EC Commission Directive of June 8, 2000 establishing a first list of indicative occupational exposure limits in implementation of Council Directive 98/24/EEC on the protection of the health and safety of employees from the risks related to chemical agents at work.

2006/15/EC Commission Directive of February 7, 2006 establishing a second list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Directives 91/322/EEC and 2000/39/EC.
2009/161/EU Commission Directive of December 17, 2009 establishing a third list of indicative occupational exposure values in implementation of Council Directive 98/24/EC and amending Commission Directive 2000/39/EC.
2017/164/EU Commission Directive of January 31, 2017 establishing a fourth list of indicative occupational exposure limit values in accordance with Council Directive 98/24/EC and amending Commission Directives 91/322/EEC, 2000/39/EC and 2009/161/EU.
2019/1831/EU Commission Directive of October 24, 2019 establishing a fifth list of indicative occupational exposure limit values in accordance with Council Directive 98/24/EC and amending Commission Directive 2000/39/EC.
Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives as amended.
European Parliament and Council Directive 94/62/EC of 20 December 1994 on packaging and packaging waste as amended.
2016/425/EU Regulation of the European Parliament and of the Council of March 9, 2016 on personal protective equipment and repealing Council Directive 89/686/EEC.

Prohibitions and restrictions on placing on the market (Annex XIV, XVII REACH, SVHC substances)
Lead (CAS 7439-92-1) is listed as a candidate for REACH Annex XIV (SVHC substance) and REACH Annex XVII. Arsenic (CAS 7439-92-1) is listed in REACH Annex XVII.

15.2 Chemical safety assessment

No chemical safety assessment has been carried out.

Section 16: Other information

Full text of indicated H phrases mentioned in section 3

H261	In contact with water releases flammable gases.
H301	Toxic if swallowed.
H315	Causes skin irritation.
H331	Toxic if inhaled.
H360FD	May damage fertility. May damage the unborn child.
H362	May cause harm to breast-fed children.
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.
H413	May cause long lasting harmful effects to aquatic life.

Trainings

Before commencing working with the product, the user should learn the Health & Safety regulations, regarding handling chemicals, and in particular, undergo a proper workplace training.
NOTE: For professional users only.

Abbreviations and acronyms

OEL	Occupational Exposure Limit
STEL	Short-Term Exposure Limit
CEV	Ceiling Exposure Value
ACBM	Admissible Concentration in Biological Material
PBT	Persistent, Bioaccumulative and Toxic substance
vPvB	very Persistent, very Bioaccumulative substance
PNEC	Predicted No Effect Concentration.
DNEL	Derived No Effect Level
Aquatic Acute 1	Hazardous to the aquatic environment – acute, category 1
Aquatic Chronic 1, 4	Hazardous to the aquatic environment – chronic, category 1, 4
Acute Tox. 3	Acute toxicity category 3
STOT RE 2	Specific target organ toxicity — repeated exposure category 2
Water react. 2	Substance or mixture which in contact with water emits flammable gas category 2
Skin Irrit. 2	Skin irritation category 2
Repr. 1A	Reproductive toxicity cat. 1A
Lact	Risk for lactation-related impacts

Key literature references and data sources

This SDS was prepared on the basis of sheets of the individual components, literature data, online databases (e.g.: ECHA, TOXNET, COSING) as well as our knowledge and experience, taking into account current legislation.

Classification and procedures used to classify the mixture in accordance with Reg. EC 1272/2008

Repr. 1A H360FD	calculation method
Lact. H362	calculation method

Additional information

Modifications: sections: 2,3,8,12,14,15,16
Sheet issued by: **„THETA"** Consulting sp. z o.o.
The sheet was reviewed and approved by: Daniel Malecha, Director of Research and Technology Development at Baterpol S.A.

Current safety data sheets for all Baterpol S.A. products are available at www.baterpol.pl under the tab: „Informacje" (Information) subsection: „Karty charakterystyki" (Safety Data Sheets).

The information above is based on a current available data concerning the product, but also on the experience and knowledge in this field of the producer. They are neither a quality description of the product nor a guarantee of particular features. They are to be treated as aid to safety in transport, storage and usage of the product. That does not free the user from the responsibility of improper usage of the information above and also of improper compliance with the law norms in the field.