

SAFETY DATA SHEET

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

1.1. Product identifier

Trade name

Lead-Silver Oxides; Pb-Ag Oxide Drosses

Product no.

-

REACH registration number

01-2119475326-34 (UVCB)

Other means of identification

Waste solids, lead silver anode

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

Relevant identified uses of the substance or mixture

Intermediate. Identified uses:

1. Industrial isolation of the intermediate PbAg residue from lead-anode cleaning and re-shaping steps, by settling, filtering and other hydrometallurgical processes. SU 3,8,14 // PROC 2,3,4,5,8b,9,26 // PC 19 // AC n/a // ERC 1
2. Industrial use of the intermediate PbAg residue in the ultimate manufacturing of lead or lead compounds by pyro-metallurgical processes

Uses advised against

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The full text of any mentioned and identified use categories are given in section 16

1.3. Details of the supplier of the safety data sheet

Company and address

Boliden Kokkola
Sinkkiaukio 1
67900 Kokkola
FINLAND

Tel +358 6 828 6111

Contact person

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E-mail

info.kokkola@boliden.com

SDS date

15-12-2017

SDS Version

1.2

1.4. Emergency telephone number

999 (or 111 for non-emergency medical advice). Emergency Action: In the event of a medical enquiry involving this product, please contact your doctor or local hospital accident and emergency department or the NHS enquiry service). See section 16.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Acute Tox.4; H302

Acute Tox.4; H332

According to EC-Regulation 1907/2006 (REACH)

Repr. 1A; H360
STOT RE 2; H373
Aquatic chronic 1; H410

See full text of H-phrases in section 2.2.

2.2. Label elements

Hazard pictogram(s)



Signal word

Danger!

Hazard statement(s)

Harmful if swallowed (H302)
Harmful if inhaled. (H332)
May damage fertility or the unborn child. (H360)
May cause damage to organs through prolonged or repeated exposure (H373)
Very toxic to aquatic life with long lasting effects. (H410)
Warning! Contains lead (EUH 201A)

Safety statement(s)	General Prevention	- Do not breath dust(fume/gas/mist/vapours/spray Avoid release to the environment. (P273). Wear protective gloves/ protective clothing/ eye protection / face protection. (P280).
	Response	Collect spillage (P391) IF exposed or concerned: Get medical advice / attention (P308+P313)
	Storage	-
	Disposal	Dispose contents / container to an approved collecting point for dangerous waste

Identity of the substances primarily responsible for the major health hazards

During the electrolytic production of zinc, the Lead-anodes need to be regularly cleaned and maintained. At the end of their service life, anodes need to be recycled; by melting and re-casting the anodes, a Pb/Mn-oxide residue, with some metallic lead and silver, is collected from the molten metal surface; it is isolated for further processing in production units of Lead metal or Lead compounds.

2.3. Other hazards

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Additional labelling

-

Additional warnings

-

VOC

-

SECTION 3: Composition/information on ingredients

3.1. Substances

NAME: Waste solids, lead silver anode
IDENTIFICATION NOS.: CAS-no: 94522-05-3 EC-no: 305-449-9 REACH-no: 01-2119475326-

According to EC-Regulation 1907/2006 (REACH)

34

CONTENT: 100%

CLP CLASSIFICATION: Acute Tox. 4, Repr. 1A, STOT RE2, Aquatic Chronic 1 H302, H332, H360, H373, H410

(*) See full text of H-phrases in chapter 16. Occupational exposure limits are listed in section 8, if these are available.

3.2. Mixtures

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Other informations

UVCB-substance. During the electrolytic production of zinc, the Lead-anodes need to be regularly cleaned and maintained. At the end of their service life, anodes need to be recycled; by melting and re-casting the anodes, a Pb/Mn-oxide residue, with some metallic lead and silver, is collected from the molten metal surface; it is isolated for further processing in production units of Lead metal or Lead compounds.

Individual substances (name (EC/CAS) concentration as element): Lead (231-100-4/7439-92-1) 60-90 %, manganese (231-105-1/7439-96-5) 2-25 %, zinc (231-175-3/7440-66-6) <2%, silver (231-131-3/7440-22-4) <0,1%

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In the case of accident: Contact a doctor or casualty department – take the label or this safety data sheet. Contact a doctor, if in doubt about the injured person's condition or if the symptoms continue. Never give an unconscious person water or similar. Take care not to expose yourself to the substance when helping.

Inhalation

Get the injured person into fresh air. Make sure there is always someone with the injured person. Keep the injured person warm and calm. Contact doctor if the patient has inhaled large amounts of the substance or are feeling unwell.

Skin contact

Remove contaminated clothing and shoes at once. Skin that has come in contact with the material must be washed thoroughly with water and soap. Skin cleanser can be used. DO NOT use organic solvents. Seek medical attention if irritation persists.

Eye contact

Remove contact lenses. Flush eyes with plenty of water (20-30°C) for at least 15 minutes and continue until irritation stops. Make sure you flush under the upper and lower eyelids. Contact a doctor at once.

Ingestion

If conscious: Rinse out mouth and give plenty of water to drink. Contact a doctor immediately and take this safety data sheet or the label from the material with you. Do not induce vomiting unless instructed by a doctor. In the event of spontaneous vomiting, hold head facing down so that no vomit runs back into the mouth and throat. Never give anything by mouth to an unconscious person.

Burns

Rinse with water until the pain stops and continue for 30 minutes. Never attempt to remove molten metal splashes because skin tears easily.

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

Typical clinical manifestations of acute lead poisoning include weakness, irritability, asthenia, nausea, abdominal pain with constipation, and anaemia. The risk for lead exposure grows when metal is heated (e.g. welding and cutting) or if the metal is oxidized (dusting). Inhaling lead fumes may cause acute lead poisoning.

Ingestion: Symptoms as above. Ingesting small amounts of inorganic lead compounds for prolonged periods may cause lack of appetite, changes in blood count, constipation, weakness, darkening of gums, vertigo, abdominal pain and vomiting.

Reproductive toxicity: This product contains teratogenic substances which can do long-term damage to human offspring. The effects on the child can be: death, deformity, delayed development, and functional

According to EC-Regulation 1907/2006 (REACH)

disorders.

Reproductive toxicity: This product contains substances which can do damage to reproductive capacity, e.g. damage to germ cells or hormonal regulation. The effects can be: sterility, reduced fertility, menstruation disorders, etc.

Carcinogenic effects: This product contains substances which are considered or proven to be carcinogenic.

Lead accumulates into skeletal tissue where its half-time of removal is 10 years. During pregnancy and lactation lead can be released back to blood circulation at enhanced rate. Lead release rate from skeletal tissue can be increased also from other reasons, thus acute lead poisoning can take place even if there is no new exposure.

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

In case of exposure or in doubt:

Contact doctor

Information to medics

Bring this safety data sheet.

SECTION 5: Firefighting measures

5.1. Extinguishing media

The product itself does not burn. Use extinguishing measures that are appropriate to local circumstances and the surrounding. Never use water in presence of molten metal. Water expands explosively in contact with molten / liquid metal.

5.2. Special hazards arising from the substance or mixture

Fumes from fire may be toxic, including heavy metal fumes.

5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective clothing to prevent contact.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid inhalation of vapours and dust. Avoid direct contact with spilled substances. Use personal protective equipment and respiratory protection.

Keep people and animals away from contaminated area. See that all working areas are equipped with adequate ventilation and that working methods, constructions and equipment fulfil the legal requirements and that personnel uses personal protective equipment as instructed. See section 8.

6.2. Environmental precautions

Avoid discharge to lakes, streams, sewers, etc. In the event of a leakage to the surroundings, contact the local environmental authorities. Consider putting up waste collecting trays/basins to prevent leakage to the surroundings.

6.3. Methods and material for containment and cleaning up

Vacuum or sweep up spillage. Collect and put in marked container for disposal. Avoid generating dust. Organic solvents, pressurized air / gases or dry brushing should be avoided.

6.4. Reference to other sections

See section section 8 for protective measures and section 13 with regard to the handling of waste.

SECTION 7: Handling and storage**7.1. Precautions for safe handling**

This is an intermediate that is to be handled in strictly controlled conditions.

The product may contain water and is to be dried thoroughly before re-melting in order to avoid explosions or splashes.

Recommendations to users:

- Furnaces are operated under strong aspiration (negative pressure towards atmospheric pressure)
- Air emissions are controlled by use of cyclones, baghouse filters, scrubbers, demisters and/or other air emission abatement devices e.g. filters (up to 99% efficiency), wet scrubbers (50-99% efficiency). This may create a general negative pressure at the system openings (loading, sampling, production exit)
- Closed process, especially in case of dusting
- All process stages to take place in confined area, all lead-containing residues to be circulated
- Containment of liquid volumes in sumps to collect / prevent accidental spillage.

All process waters including cleaning waters, run-off waters are to be circulated whenever possible. The plant has to have a water treatment system that can recover any heavy metals back to the process before the waste waters are discharged to the environment.

Prior to cleaning and maintenance: stopping of process or part of it, cooling and ventilation of the equipment, separation from energy source and lock-out. Personal protective equipment according to risk assessment.

An emergency shower and eye flush station shall be available alt the working place

Only trained personnel may handle this substance and / or maintain / clean the equipment.

General occupational hygiene: Keep separated from food / beverages. Do not eat, drink or smoke at workplace. Change contaminated clothing. Wash hands prior to eating / smoking etc. Maintain good personal hygiene. Change clothes often enough and shower daily after work. Pregnant or lactating women shall not be exposed to the product.

7.2. Conditions for safe storage, including any incompatibilities

Store in original containers or in containers that are of same material. Prevent leakage to environment, natural waters and sewages. The product may form hydrogen at elevated temperatures, avoid contact with water or acids. Store in well-ventilated storage. Keep away from water, flammable substances and strong acids / alkalis.

Storage temperature

No data available.

7.3. Specific end use(s)

See allowed uses in section 1.2..

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****OEL**

Lead and inorganic compounds (EH40/2011)

Long-term exposure limit (8-hour TWA reference period): - ppm | 0.15 mg/m³

Short-term exposure limit (15-minute reference period): - ppm | - mg/m³

BIOLOGICAL LIMIT VALUES

Action levels

Blood-lead concentration

Woman of reproductive capacity, 25 µg/dL

According to EC-Regulation 1907/2006 (REACH)

Young person, 40 µg/dL
Any other employee 50 µg/dL

Suspension levels
Blood-lead concentration:
Woman of reproductive capacity, 30 µg/dL
Young person, 50 µg/dL
Any other employee 60 µg/dL

Urinary lead concentration
Woman of reproductive capacity 25 µg Pb/g creatinine
Any other employees 110 µg Pb / g creatinine

DNEL / PNEC

DNEL (Lead): 40 µg/dL - Duration: Long term – Systemic effects - Workers - Remarks: Adult neurological function

DNEL (Lead): 10 µg/dL - Duration: Long term – Systemic effects - Workers - Remarks: Developmental effect on foetus of pregnant women

PNEC (lead): 3.1 µg Pb/L (dissolved) - Exposure: Freshwater
PNEC (lead): 3.5 µg Pb/L (dissolved) - Exposure: Marine water
PNEC (lead): 174.0 mg Pb/kg dw - Exposure: Freshwater sediment
PNEC (lead): 41.0 mg Pb/kg dw (bioavailability correction) - Exposure: Freshwater sediment
PNEC (lead): 164.2 mg Pb/kg dw - Exposure: Marine water sediment
PNEC (lead): 212.0 mg Pb/kg dw - Exposure: Soil
PNEC (lead): 0.1 mg Pb/L - Exposure: Sewage Treatment Plant

8.2. Exposure controls

Compliance with the stated exposure limits values should be checked on a regular basis.

Blood lead monitoring: Set in place a certified monitoring regime which covers all site activities; Define a policy for submitting workers to regular blood lead monitoring, including increased frequency for workers undertaking high-risk jobs and workers with elevated blood lead levels; Ensure all workers have a blood test prior to working on site. Set an "action level" that is typically 5 µg/dL below the exposure limit deemed to be safe. If the action level is exceeded, appropriate measures are to be taken, to prevent further increases in blood lead. If the safe threshold is exceeded, continue or begin ban on overtime, ensure strict hygiene procedures are followed, undertake detailed inspections to ensure correct use of personal protective equipment, undertake detailed inspections to ensure recommended workplace procedures are followed, move employee to workplace where exposure is expected to be lower or remove from lead environment altogether, further increase blood lead sampling frequency, and continue frequent sampling until results are below the first action level.

General recommendations

Observe general occupational hygiene.

Exposure scenarios

If there is an appendix to this safety data sheet, the indicated exposure scenarios must be complied.

Exposure limits

Trade users are covered by the rules of the working environment legislation on maximum concentrations for exposure. See work hygiene threshold values above

Appropriate technical measures

Take ordinary precautions when using the product. Avoid inhalation of gas or dust.

Hygiene measures

Personal Hygiene: Ensure workers follow simple hygiene rules (e.g. do not bite nails and keep them cut short, avoid touching or scratching face with dirty hands or gloves); Ensure workers do not wipe away sweat with hands or arms; Ensure workers use disposable tissues rather than a handkerchief; Prohibit drinking, eating and smoking in production areas, or access to eating and non-production areas in working clothes; Ensure workers wash hands, arms, faces and mouths (but preferably shower) and change into clean clothing before entering eating areas; For high exposure workplaces, separate rooms for cleaning hands, removal of clothes, showers and clean clothes may be necessary; Ensure workers handle dirty working clothes with care; Allow no personal belongings to be taken into production areas, or

According to EC-Regulation 1907/2006 (REACH)

items that have been used in production areas to be taken home. Ensure general shop cleanliness is maintained by frequent washing/vacuuming. Clean every workplace at the end of every shift.

Measures to avoid environmental exposure

One or more of the following measures may if necessary be taken to reduce emissions to water:

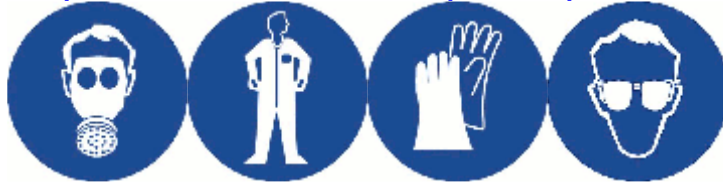
- Chemical precipitation: used primarily to remove the metal ions
- Sedimentation
- Filtration: used as final clarification step
- Electrolysis: for low metal concentration
- Reverse osmosis: extensively used for the removal of dissolved metals
- Ion exchange: final cleaning step in the removal of heavy metal from process wastewater

One or more of the following measures may if necessary be taken to reduce emissions to air:

- Electrostatic precipitators using wide electrode spacing: Wet electrostatic precipitators:
- Cyclones, but as primary collector Fabric or bag filters: high efficiency in controlling fine particulate (melting): achieve emission values Membrane filtration techniques can achieve
- Ceramic and metal mesh filters. PM10 particles are removed
- Wet scrubbers

Lead removal from treatment works should be at least the minimum default 84% removal used in the CSR. Solid material collected from on-site treatment must be sent for metal recovery or treated as hazardous waste. Waste water treatment sludge must be recycled, incinerated or landfilled and not used as agricultural fertiliser.

Individual protection measures, such as personal protective equipment



Generally

Only CE-marked personal protection equipment should be used.

Respiratory Equipment

Suitable respiratory protective device recommended if work activity is likely to result in formation of lead fumes, vapours or dust. In case of brief or low level exposure use dust mask or half mask with particle filter P2. Assess the need to wear respiratory protective equipment in production areas. Consider use effective masks accompanied by a compliance policy (ensure proper shaving; ensure workers do not remove RPE in production areas in order to communicate). Where masks are used, employ formal mask cleaning and filter changing strategies.

Skin protection

Special work clothing should be used. When working with this product for a long period of time, use a protective suit.

Hand protection

Recommended: Nitrile rubber. Breakthrough time: > 480 minutes (Class 6)

Eye protection

Use face shield. Use safety glasses with a side shield as an alternative. Splash-proof goggles (DIN EN 166) in case of dusting / splashes.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Form	Colour	Odour	pH	Viscosity	Density (g/cm ³)
Solid, powder with large particles of varying size	grey, red	None	-	Not applicable	7,96

Phase changes

Melting point (°C)	Boiling point (°C)	Vapour pressure (mm Hg)
297 (1013 hPa)	-	Negligible

Data on fire and explosion hazards

According to EC-Regulation 1907/2006 (REACH)

Flashpoint (°C)

Not applicable

Explosion limits (Vol %)

Not applicable

Solubility

Solubility in water

Very slightly soluble

9.2. Other information

Solubility in fat

Not applicable

Ignition (°C)

Not flammable

Oxidizing properties

Not applicable

Self ignition (°C)

Not applicable

n-octanol/water coefficient

Not applicable

Additional information

SECTION 10: Stability and reactivity

10.1. Reactivity

Poisonous gases may be released in heating. Lead oxide may react vigorously with some metal powders.

10.2. Chemical stability

The product is stable under the conditions, noted in the section on "Handling and storage".

10.3. Possibility of hazardous reactions

No special

10.4. Conditions to avoid

Avoid excessive exposure to heat.

10.5. Incompatible materials

Metal powders, strong acids, halogens, reducing agents.

10.6. Hazardous decomposition products

In heating >500 °C poisonous lead and lead oxide fumes are released.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

This product has not been tested. Judgements on the expected toxicity of this product have been made based upon consideration of its major components, taking into account the elemental and mineralogical composition of representative samples and the toxicity of the various metal species.

Substance	Species	Test	Route	Result
Lead(II)oxide CAS-nr 1317-36-8	Rat	LD50	Oral	1400 mg/kg bw
Manganese CAS-nr 7439-96-5	Rat	LD50	Oral	9000 mg/kg bw
Manganese dioxide CAS-nr 1313-13-9	Rat	LD50	Oral	>3200 mg/kg bw
Zinc CAS-nr. 7440-66-6	Rat	LD50	Oral	> 2000 mg/kg bw
Zinc CAS-nr. 7440-66-6		LC50	inhaling 8h	> 5,41 mg/l
Silver CAS-nr. 7440-22-4	Rat	LD50	Oral	> 2000 mg/kg bw

General

The product has been classified according to its reproductive toxicity. The constituents precipitate as metal compounds, -residues and/or mixtures. Heavy metals accumulate in body and symptoms can manifest after long time exposure.

Skin corrosion/irritation

May irritate skin

Serious eye damage/irritation

May irritate eyes

Respiratory or skin sensitisation

Harmful if inhaled. May cause headache, nausea, lack of appetite and vomiting. Risk of lead pollution if the material is overheated or the metal is oxidized (risk of dusting). Inhaling lead fumes may lead to lead poisoning. Symptoms may manifest after some time after exposure. If inorganic lead is ingested as small amounts for long

According to EC-Regulation 1907/2006 (REACH)

period, patient may suffer of lack of appetite, changes in blood count, constipation, darkening of gums, vertigo, abdominal pain and vomiting.

Carcinogenicity

-

Reproductive toxicity

May affect fertility or damage foetus.

STOT-single exposure

May cause irritation of airways.

STOT-repeated exposure

Damages organs

Aspiration hazard

Inhaling dust from dried product is dangerous

Long term effects

Lead is slowly absorbed by ingestion and inhalation and poorly absorbed through the skin. If absorbed, it will accumulate in the body with low rates of excretion, leading to long-term build up.

Long term effects include periferic neuropathy, enkephalopathy and decline of intelligence.

Reproductive toxicity: This product contains teratogenic substances which can do long-term damage to human offspring. The effects on the child can be: death, deformity, delayed development, and functional disorders.

Reproductive toxicity: This product contains substances which can do damage to reproductive capacity, e.g. damage to germ cells or hormonal regulation. The effects can be: sterility, reduced fertility, menstruation disorders, etc.

The substances may activate in inhaling or ingestion.

SECTION 12: Ecological information

12.1. Toxicity

Substance	Species	Test	Test duration	Result
Lead CAS-nr. 7439-92-1	Fish (Oncorhynchus mykiss)	LC50	96h	0,14 mg/l
Lead CAS-nr. 7439-92-1	Daphnia	EC50	48h	0,1 mg/l
Lead CAS-nr. 7439-92-1	Algae	IC50	72h	0,14 mg/l
Lead (II)oxide CAS-nr 1317-36-8	Daphnia (D.Magna)	EC50	48h	388 mg/l
Lead (II) oxide CAS-nr 1317-36-8	Fish (Gambusia affinis)	LC50	96h	>56000 mg/l
Manganese CAS-nr 7439-96-5	Fish	LC50	96h	2,91 mg/l
Manganese CAS-nr 7439-96-5	Daphnia	EC50	48h	5,2 mg/l
Manganese CAS-nr 7439-96-5	Algae	IC50	72h	0,55 mg/l
Zinc CAS-nr 7440-66-6	Fish	LC50	96h	0,116 mg/l
Zinc CAS-nr 7440-66-6	Daphnia (D. magna)	EC50	48h	0,068 mg/l

12.2. Persistence and degradability

Lead, dross contains inorganic substances that do not degrade. The fate and distribution of the separate metals present are likely to be the same as for the elements. Biodegradation is not relevant for inorganic substances.

12.3. Bioaccumulative potential

Lead, dross contains inorganic lead and lead compounds which are considered to be bioaccumulating in the environment, and may accumulate in aquatic and terrestrial plants and animals.

12.4. Mobility in soil

Contains inorganic lead and lead compounds which are sparingly soluble and are expected to be adsorbed onto soils and sediments. Mobility is expected to be low.

12.5. Results of PBT and vPvB assessment

The PBT and vPvB criteria do not apply to inorganic substances.

12.6. Other adverse effects

The product contains ecotoxic substances that may damage living aquatic organisms. The product contains substances that that may have negative long-term effect to aquatic environment due to their low rate of degradation. The heavy metals in the product are dangerous substances. Poisonous to aquatic organisms, may cause long term injurious effects in aquatic environment.

According to EC-Regulation 1907/2006 (REACH)

SECTION 13: Disposal considerations

13.1. Waste treatment methods

The product is covered by the regulations on dangerous waste. (H10)

Waste

EWC code

11 02 07* other wastes containing dangerous substances

Specific labelling

-

Contaminated packing

Packaging which contains leftovers from the product must be disposed of in the same way as the product.

SECTION 14: Transport information

This product is covered by the conventions on dangerous goods.

14.1 – 14.4

ADR/RID

14.1. UN number 3077

14.2. UN proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (waste solids, lead silver anode)

14.3. Transport hazard class(es) 9

14.4. Packing group III

Notes -

Tunnel restriction code E

IMDG

UN-no. 3077

Proper Shipping Name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (waste solids, lead silver anode)

Class 9

PG* II

EmS F-A, S-F

MP** Yes

Hazardous constituent -

IATA/ICAO

UN-no.

Proper Shipping Name

Class

PG*

14.5. Environmental hazards

This product contains substances which can cause undesirable long-term effects in the water environment, due to its poor biodegradability.

14.6. Special precautions for user

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14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not transported in bulk

(*) Packing group

(**) Marine pollutant

SECTION 15: Regulatory information

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

According to EC-Regulation 1907/2006 (REACH)

Restrictions for application

People under the age of 18 must not be exposed to this product cf. Council Directive 94/33/EC. Only for industrial use. Pregnant and nursing women must not be exposed to the effects of this product. The risk, and possible technical precautions or design of the workplace to avoid such risk, must therefore be evaluated.

Demands for specific education

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Additional information

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Sources

EC regulation 1907/2006 (REACH)

EC Regulation 1272/2008 (CLP)

DIRECTIVE 2012/18/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012 on the control of major-accident hazards involving dangerous substances, amending and subsequently repealing Council Directive 96/82/EC

Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain directives

REGULATION (EC) No 1013/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 14 June 2006 on shipments of waste

COUNCIL DIRECTIVE 94/33/EC of 22 June 1994 on the protection of young people at work

COUNCIL DIRECTIVE 92 / 85 / EEC of 19 October 1992 on the introduction of measures to encourage improvements in the safety and health at work of pregnant workers and workers who have recently given birth or are breastfeeding

EH40/2005 Workplace exposure limits

15.2. Chemical safety assessment

A Chemical Safety Assessment has not been carried out for this product.

SECTION 16: Other information

Full text of H-phrases as mentioned in section 3

H302 – Harmful if swallowed (H302)

H332 – Harmful if inhaled. (H332)

H360 – May damage fertility or the unborn child. (H360)

H373 – May cause damage to organs through prolonged or repeated exposure (H373)

H410 – Very toxic to aquatic life with long lasting effects. (H410)

EUH201A – Warning! Contains lead (EUH 201A)

The full text of identified uses as mentioned in section 1

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Other symbols mentioned in section 2

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Other

It is recommended to hand over this safety data sheet to the actual user of the product. Information in this safety data sheet cannot be used as a product specification.

The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.

A change (in proportion to the last essential change (first cipher in SDS version)) is marked with a blue triangle.

Emergency numbers

According to EC-Regulation 1907/2006 (REACH)

Austria: Poison Control Centre Emergency helpline +43 1 406 43 43, 112
Belgium: 070 - 245 245
Bulgaria: +359 2 9154 409
Czech Republic: Toxikologické informační středisko Telefon: +420 224 919 293, +420 224 915 402
Denmark: Kontakt Giftlinien på tlf.nr.: 82 12 12 12 (åbent 24 timer i døgnet).
Estonia: 112, 16662, ((+372) 626 93 90)
Finland: 09-4711/Myrkytystietokeskus tai suora numero 09-471977 Myrkytystietokeskus/HUS, Tukholmankatu 17, 00029 HUS (Helsinki) 112
France: ORFILA (INRS) : + 33 (0)1 45 42 59 59. 24 heures sur 24 et 7 jours sur 7
Germany: Giftnotruf Berlin, Emergency telephone: +49 30 19240 (Tag und Nacht)
Greece: +30 10 779 3777
Hungary: Telefon: 06-80-20-11-99
Iceland: Neyðarlínan: Sími 112. Eitrunarmiðstöð Landsspítalans. Sími: 543 2222.
Ireland: +353 1 8379964
Italy: Centro antiveleni di Roma - Policlinico Umberto I tel. 06-49978000
Latvia: +371 704 2468
Lithuania: Visuomenės sveikatos centrams +370 5 236 20 52 arba +370 687 53378
Malta: 2425 0000
Netherlands: 30-2748888
Norway: Giftinformasjonssentralen på tlf.nr.: 22 59 13 00, 113
Poland: +48 58301 65 16 / +48 58 349 2831
Portugal: Em caso de intoxicacao, ligue 808 250 143
Romania: +40 21 3183606
Slovakia: +421 2 54 77 4166
Slovenia: + 386 41 650500
Spain: Servicio de Información Toxicológica Teléfono: + 34 91 562 04 20 (solo emergencias toxicológicas) Información en español (24h/365 días)
Sweden: 112, 08-331231 (vardagar kl 9-17)
United Kingdom: 999 (or 111 for non-emergency medical advice). Emergency Action: In the event of a medical enquiry involving this product, please contact your doctor or local hospital accident and emergency department or the NHS enquiry service)

**Date of last essential change
(First cipher in SDS version)**

1.6.2015

**Date of last minor change
(Last cipher in SDS version)**

15.12.2017 (EWC code)