

SAFETY DATA SHEET

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

1.1. Product identifier

Trade name

Matte, lead

Product no.

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REACH registration number

01-2119524003-58-0007 (UVCB)

Other means of identification

-

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

Relevant identified uses of the substance or mixture

For use only as intermediate.

Uses advised against

-

1.3. Details of the supplier of the safety data sheet

Company and address

Boliden Commercial
Box 750
SE-101 35 Stockholm
Sweden

Tel +46 8 610 15 00

Fax +46 8 31 55 45

Contact person

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E-mail

info.market@boliden.com

SDS date

01-06-2015

SDS Version

1.0

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

STOT RE 2; H373

Aquatic Chronic 1; H410

Aquatic Acute 1; H400

See full text of H-phrases in section 2.2.

2.2. Label elements

Hazard pictogram(s)

According to EC-Regulation 1907/2006 (REACH)



Signal word

Warning!

Hazard statement(s)

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

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

Contains nickel metal. May produce an allergic reaction (EUH208).

Safety statement(s)

General

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Prevention

Avoid release to the environment. (P273).

Response

Get medical advice/attention if you feel unwell. (P314).

Collect spillage. (P391).

Storage

-

Disposal

-

Identity of the substances primarily responsible for the major health hazards

Matte, lead is a UVCB substance including lead compounds.

2.3. Other hazards

May generate hydrogen sulphide in contact with acid or water with low pH.

Additional labelling

-

Additional warnings

-

VOC

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SECTION 3: Composition/information on ingredients

3.1. Substances

NAME:	matte, lead
IDENTIFICATION NOS.:	CAS-no: 84195-51-7 EC-no: 282-356-9 REACH-no: 01-2119524003-58-0007
CONTENT:	100%
CLP CLASSIFICATION:	STOT RE 2, Aquatic Acute 1, Aquatic Chronic 1 H373, H400, H410

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

3.2. Mixtures

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Other informations

Matte, lead is a UVCB substance initially formed as a molten metal sulphide phase during the smelting of primary and secondary lead containing materials high in sulphur.

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.

Inhalation

Get the person into fresh air and stay with them.

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 or

According to EC-Regulation 1907/2006 (REACH)

thinners.

Eye contact

Remove contact lenses. Flush eyes immediately with plenty of water (20-30°C) and continue until irritation stops. Make sure you flush under the upper and lower eyelids. If irritation continues, contact a doctor.

Ingestion

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. In the event of spontaneous vomiting, hold head facing down so that no vomit runs back into the mouth and throat.

Burns

Rinse with water until the pain stops and continue for 30 minutes.

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.

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

Symptoms of poisoning may occur after several hours; seek medical attention.

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 the molten metal sulphide. Water expands explosively in contact with molten / liquid metal.

5.2. Special hazards arising from the substance or mixture

In case of fires, hazardous combustion gases are formed: Lead fumes; Lead oxide and sulphur oxides.

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

Ensure adequate ventilation. Avoid dust formation. Avoid contact with skin, eyes and clothing.

6.2. Environmental precautions

Do not discharge into the drains/surface waters/groundwater. In case of entry into waterways, soil or drains, inform the responsible authorities.

6.3. Methods and material for containment and cleaning up

Collect mechanically (preferably in dry condition). Send in suitable containers for recovery or disposal.

6.4. Reference to other sections

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

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Handle lead material in such a way, that distribution of dust is minimized. Avoid direct contact with the product. Do not inhale fumes or dust.

7.2. Conditions for safe storage, including any incompatibilities

Do not store together with foodstuffs. Do not store together with animal feedstocks. Do not store with acids.

Storage temperature

No data available.

7.3. Specific end use(s)

Not applicable. This product is a transported isolated intermediate.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

OEL

According to EC-Regulation 1907/2006 (REACH)

lead (EH40/2005)

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

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 - Exposure: Freshwater - Remarks: Long-term – chronic effects (dissolved)

PNEC (lead): 3.5 µg Pb/L - Exposure: Marine water - Remarks: Long-term – chronic effects (dissolved)

PNEC (lead): 174.0 mg Pb/kg dw - Exposure: Freshwater sediment - Remarks: without bioavailability correction

PNEC (lead): 41.0 mg Pb/kg dw - Exposure: Freshwater sediment - Remarks: with bioavailability correction

PNEC (lead): 164.0 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.

Appropriate technical measures

Airborne gas and dust concentrations must be kept as low as possible and below the current threshold values. Use for example an exhaust system if the normal air flow in the work room is not sufficient. Make sure that eyewash and emergency showers are clearly marked.

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 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

According to EC-Regulation 1907/2006 (REACH)

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. In case of brief exposure or low pollution use dust mask or half mask with particle filter P2.

Skin protection

Wear protective work clothing. For workers in areas of significant exposure, provide sufficient working clothes to enable daily change into clean clothes. In such cases all work clothing should be cleaned by the employer on a daily basis and is not permitted to leave the work site.

Hand protection

Protective gloves. Material of gloves: Neoprene or Leather.

Eye protection

Safety glasses.

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	brownish to black	None	Approx 8	Not applicable	4.96 - 7.01

Phase changes

Melting point (°C)	Boiling point (°C)	Vapour pressure (mm Hg)
> 500	Not applicable	Negligible

Data on fire and explosion hazards

Flashpoint (°C)	Ignition (°C)	Self ignition (°C)
Not applicable	Not applicable	Not applicable
Explosion limits (Vol %)	Oxidizing properties	
Not considered to be explosive	Not considered to be oxidising	

Solubility

Solubility in water	n-octanol/water coefficient
0.1-100 mg/L	Not applicable

9.2. Other information

Solubility in fat	Additional information
Not applicable	Decomposition temperature >650°C

SECTION 10: Stability and reactivity

10.1. Reactivity

No reactive hazards known.

10.2. Chemical stability

According to EC-Regulation 1907/2006 (REACH)

Expected to be stable under normal conditions of use.

10.3. Possibility of hazardous reactions

Generate hydrogen sulphide in contact with acid or water with low pH.

10.4. Conditions to avoid

Avoid excessive exposure to heat.

10.5. Incompatible materials

Acids and oxidising agents.

10.6. Hazardous decomposition products

The product is not degraded when used as specified in section 1.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

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.

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.

Acute toxicity

Based upon consideration of its components, this grade of matte, lead is not expected to be acutely toxic.

Skin corrosion/irritation

This grade of matte, lead is not expected to be irritating to skin based upon consideration of the components of a representative.

Serious eye damage/irritation

This grade of matte, lead is not expected to be irritating to eyes based upon consideration of the components of a representative sample.

Respiratory or skin sensitisation

This grade of matte, lead is not expected to be a skin sensitizer, based upon consideration of its components.

Germ cell mutagenicity

This grade of matte, lead is not considered to be a potential germ cell mutagen based upon consideration of the components of a representative sample.

Carcinogenicity

This grade of matte, lead is not expected to be a carcinogen based upon consideration of the components of a representative sample.

Reproductive toxicity

This grade of matte, lead is not expected to be a reproductive toxin based upon consideration of the components of a representative sample.

STOT-single exposure

This grade of matte, lead is not considered to be acutely toxic and no additional specific target organ effects have been identified as a result of acute exposure.

STOT-repeated exposure

This grade of matte, lead contains significant amounts of lead and lead compounds, which are cumulative poisons and may be absorbed into the body through ingestion or inhalation. Lead and lead compounds have been documented in observational human studies to produce toxicity in multiple organ systems and body function including the haemotopoetic (blood) system, kidney function, reproductive function and the central nervous system.

Aspiration hazard

This grade of matte, lead is a solid and aspiration hazards are not expected to occur.

SECTION 12: Ecological information

12.1. Toxicity

The environmental effects of this UVCB substance has been assessed by consideration of the components and by using read-across from studies with similar compounds.

The toxicity of this grade of matte, lead has been estimated using calculation methods that take into account the elemental and mineralogical composition of representative samples and the toxicity of the various metal species. On this basis, this grade of matte, lead is considered to be chronically toxic to the aquatic environment.

Substance	Species	Test	Test duration	Result
matte, lead	Crustacean	EC50	48 h	> 1 mg/L (estimated)
matte, lead	Algae	EC50	72 h	> 1 mg/L (estimated)

12.2. Persistence and degradability

Matte, lead is an inorganic substance and does 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

Matte, lead 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

Matte, lead 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

No information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

The product is covered by the regulations on dangerous waste.

Waste

EWC code

06 04 05, 10 04 05, 10 04 01

Specific labelling

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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. (MATTE, LEAD)
14.3. Transport hazard class(es)	9
14.4. Packing group	III
Notes	-
Tunnel restriction code	3 E

IMDG

UN-no.	3077
Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (MATTE, LEAD)
Class	9

According to EC-Regulation 1907/2006 (REACH)

PG*	III
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

No specific transport precautions

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

Not transported by sea in bulk

(*) Packing group

(**) Marine pollutant

SECTION 15: Regulatory information

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

Restrictions for application

People under the age of 18 must not be exposed to this product cf. Council Directive 94/33/EC.

Demands for specific education

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Additional information

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Sources

EC regulation 1907/2006 (REACH)
Directive 2000/532/EC
EC Regulation 1272/2008 (CLP)
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

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.

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.

According to EC-Regulation 1907/2006 (REACH)

Emergency numbers

Belgium: 070 225 245
 Austria: Austria Österreich Emergency phone: +36 43 063 06 43, 43, 21 12
 Portugal: Portugal Portugal Soc. d'ac. 808 2808 250 143
 Czech Republic: Czech Republic Informační středisko Telefon: +20 222 022 2939-202 222 022 4025 402
 Estonia: Estonia Eesti Informační středisko Telefon: +420 224 919 293, +420 224 915 402
 Lithuania: Lithuania Lietuva Informační středisko Telefon: +37 5 2716 512 3220 12 4070 687 050 75, 3378
 Italy: Italy Italia Informační středisko Telefon: +39 02 99 80 00 8000
 Spain: Spain España Informační středisko Telefon: +34 91 562 94 29 70 (only in emergencies) (Local signals) ankatu 17, Informační středisko (příjemčí) 025 12 85 días)
 Sweden: Sweden Sverige Informační středisko Telefon: +46 8 59 59 24 59 59. 24 heures sur 24 et 7 jours sur 7
 United Kingdom: United Kingdom Informační středisko Telefon: +44 111 (for medical emergencies) (only in emergencies) (Local signals) ankatu 17, enquiri (only in emergencies) please contact your doctor or local hospital accident and emergency department or the NHS enquiry service) 80-20-11-99
 Denmark: Denmark Danmark Informační středisko Telefon: +45 11 22 11 22 (only in emergencies) (Local signals) ankatu 17, 543 2222.
 Germany: Germany Deutschland Informační středisko Telefon: +49 30 49 20 01 24 0 (Tag/Nacht/Nacht)
 Finland: Finland Suomi Informační středisko Telefon: +358 9 197 70 70 70 (only in emergencies) (Local signals) ankatu 17, 0002 0002 (Välispuhelin) 112 4682
 Norway: Norway Norge Informační středisko Telefon: +47 800 33 300 3 120, 6120 52 arba +370 687 53378
 France: France France Informační středisko Telefon: (+33) 42 45 42 52 45 45 24 heures et 24 sur 24 sur 7
 Hungary: Hungary Magyarország Informační středisko Telefon: +36 20 918 288 11-99
 Iceland: Iceland Ísland Informační středisko Telefon: +354 543 222 2222.
 Netherlands: Netherlands Nederland Informa�n středisko Telefon: +31 20 488 366 16 / +48 58 349 2831
 Bulgaria: Bulgaria България Informační středisko Telefon: +359 2 808 250 143
 Greece: Greece Ελλάδα Informační středisko Telefon: +30 21 373 606
 Ireland: Ireland Éire Informační středisko Telefon: +353 1 467 993 299 477 4166
 Latvia: Latvia Latvija Informační středisko Telefon: +371 707 27683 468 650500
 Malta: Malta Malta Informační středisko Telefon: +356 21 22 00 00 (solo emergencias toxicológicas)
 Poland: Poland Polska Informační středisko Telefon: +48 22 63 81 23 31
 Romania: Romania România Informační středisko Telefon: +40 11 23 68 33 023 1 (vardagar kl 9-17)
 Slovakia: Slovakia Slovensko Informační středisko Telefon: +421 2 49 77 41 09 11 (for non-emergency medical advice). Emergency Action: In the event of a medical
 Slovenia: Slovenia Slovenija Informační středisko Telefon: +386 40 65 05 05 00 (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)**

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

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