

SAFETY DATA SHEET

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

1.1. Product identifier

Trade name

Tara Lead Concentrate

Product no.

-

REACH registration number

Not needed – exempted from Reach-registration. (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

Raw material for metal manufacture.

Uses advised against

-

1.3. Details of the supplier of the safety data sheet

Company and addressBoliden Tara Mines Ltd
Knockumber, Navan
Meath County
Ireland

Tel. +353 46 9082000

Contact person**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 1; H372

Repr. 1A; H360Df

Acute. Tox. 4; H302 + H332

Carc. 2; H351

Aquatic Chronic 2; H411

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

Danger!

Hazard statement(s)

Causes damage to organs through prolonged or repeated exposure. (H372)

May damage the unborn child. Suspected of damaging fertility. (H360Df)

Harmful if swallowed or if inhaled. (H302 + H332)

Suspected of causing cancer. (H351)

Toxic to aquatic life with long lasting effects. (H411)

Safety

statement(s)

General

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Prevention

Do not eat, drink or smoke when using this product. (P270).

Avoid release to the environment. (P273).

Wear protective gloves/protective clothing/eye protection/face protection.

(P280).

Response

IF exposed or concerned: Get medical advice/attention. (P308+P313).

Storage

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Disposal

Refer to manufacturer/supplier for information on recovery/recycling. (P502)

Identity of the substances primarily responsible for the major health hazards

Lead concentrate is a naturally occurring UVCB substance, obtained from naturally lead ores, without chemical modifications, including: Lead, Zinc, Cadmium.

2.3. Other hazards

-

Additional labelling

-

Additional warnings

-

VOC

-

SECTION 3: Composition/information on ingredients

3.1. Substances

NAME:	Lead concentrate
IDENTIFICATION NOS.:	EC-no: 310-127-6
CONTENT:	100%
CLP CLASSIFICATION:	Acute Tox. 4, STOT RE 1, Carc. 2, Repr. 1A, Aquatic Chronic 2 H302, H332, H351, H360Df, H372, H411

3.2. Mixtures

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

Other informations

Lead concentrate is a UVCB substance, including (name (EC/CAS), concentration): Lead (231-100-4/7439-92-1) 50-70%, Zinc (231-175-3/7440-66-6) 1-10%, Cadmium (231-152-8/7440-43-9) 0-0,1%.

This product is a concentrate, obtained from naturally occurring lead ores, without chemical modifications. The lead concentrate consists of sulphide minerals, mostly Galena (PbS). The concentrate also contains small quantities of other minerals such as Pyrite (FeS₂), Sphalerite (ZnS), Dolomite (CaCO₃.MgCO₃) and Barite (BaSO₄).

SECTION 4: First aid measures

4.1. Description of first aid measures

According to EC-Regulation 1907/2006 (REACH)

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 injured person into fresh air. Make sure there is always someone with the injured person.

Skin contact

Remove contaminated clothing and shoes. Skin that has come in contact with the material must be washed thoroughly with water and soap.

Eye contact

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

Ingestion

Drink milk or water. See a doctor if more than an insignificant amount has been swallowed.

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

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

Carcinogenic effects: This product contains substances which are considered or proven to be carcinogenic. The danger may lie in inhalation, skin contact or ingestion.

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.

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

IF exposed or concerned:
Get immediate medical advice/attention.

Information to medics

Bring this safety data sheet.

SECTION 5: Firefighting measures

5.1. Extinguishing media

The product is not flammable.

Recommended: alcohol-resistant foam, carbonic acid, powder, water mist. Water jets should not be used, since they can spread the fire.

5.2. Special hazards arising from the substance or mixture

When heated to high temperatures, harmful smoke containing sulphur and metal oxides may be formed.

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 from waste material. Avoid direct contact with spilled substances.

6.2. Environmental precautions

Avoid discharge to lakes, streams, sewers, etc.

6.3. Methods and material for containment and cleaning up

Spilled material is collected in a suitable container for removal.

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

See section 8 for information on personal protection. Avoid direct contact with the product. Avoid dust formation.

According to EC-Regulation 1907/2006 (REACH)

7.2. Conditions for safe storage, including any incompatibilities

Store the product so as to prevent release into the environment.

Storage temperature

No data available.

7.3. Specific end use(s)

This product should only be used for applications described in Section 1.2

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

OEL

Zinc oxide, fume or respirable dust CAS 1314-13-2

Limit value - Eight hours: 5 mg/m³

Limit value - Short term: 10 mg/m³

Lead and inorganic compounds (as Pb) CAS: 7439-92-1

Limit value - Eight hours: 0,15 mg/m³

Cadmium & cadmium compounds as total dust except CdO fume & CdS pigments (as Cd)

Limit value - Eight hours: 0,025 mg/m³

DNEL / PNEC

No data available.

8.2. Exposure controls

Compliance with limit values should be checked regularly.

Ensure good ventilation. Exercise good industrial hygiene.

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

Take ordinary precautions when using the product. Avoid inhalation of gas or dust. A well-ventilated area is recommended.

Hygiene measures

Whenever you take a break in using this product and when you have finished using it, all exposed areas of the body must be washed. Always wash hands, forearms and face.

Measures to avoid environmental exposure

Keep damming materials near the workplace. If possible collect spillage during work.

Individual protection measures, such as personal protective equipment



Generally

Only CE-marked personal protection equipment should be used.

Respiratory Equipment

If the ventilation at the work place is not sufficient, use a half or whole mask with an appropriate filter. The choice depends on the concrete work situation and how long you will be using the product.

Skin protection

Use protective clothing.

Hand protection

Use protective gloves.

Eye protection

Wear approved 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 (fine powder)	Black	None	-	-	6,20

Phase changes

Melting point (°C) Ca 900	Boiling point (°C)	Vapour pressure (mm Hg)
-	-	-

Data on fire and explosion hazards

Flashpoint (°C)	Ignition (°C)	Self ignition (°C)
-	-	-

Explosion limits (Vol %)	Oxidizing properties
-	-

Solubility

Solubility in water	n-octanol/water coefficient
Insoluble	-

9.2. Other information

Solubility in fat	Additional information
-	Molecular weight of lead sulphide: 239.3 Bulk density: 3.1 - 3.5

SECTION 10: Stability and reactivity

10.1. Reactivity

This concentrate is stable.

10.2. Chemical stability

This concentrate is stable.

10.3. Possibility of hazardous reactions

No special

10.4. Conditions to avoid

No special

10.5. Incompatible materials

Reacts with strong oxidizing agents and concentrated acids.

10.6. Hazardous decomposition products

No information available.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Eye and respiratory irritant. Colic is recognized symptom of acute lead poisoning. Sulphides of metals, when heated, may release sulphur dioxide. Sulphur dioxide is an upper respiratory tract irritant. Conditions and work practices which generate dust and fumes should be controlled or avoided. Dust and fumes may cause health effects.

During normal handling of the product, it should not present any health hazards.

Acute toxicity

Substance	Species	Test	Route of exposure	Result
Acute toxicity: Low				

Skin corrosion/irritation

Local irritation: None

Serious eye damage/irritation

No data available.

Respiratory or skin sensitisation

None known.

Germ cell mutagenicity

No data available.

Carcinogenicity

Suspected of causing cancer.

Reproductive toxicity

According to EC-Regulation 1907/2006 (REACH)

May damage fertility or the unborn child.

STOT-single exposure

No data available.

STOT-repeated exposure

Causes damage to organs.

Aspiration hazard

No data available.

Long term effects

Lead absorption may occur. Prolonged exposure may cause lead absorption, increased blood lead level, fatigue, anaemia, and central nervous system disorders. Lead can cause kidney damage at high blood lead levels. Lead is also known to interfere with the development process of haem.

Acute overexposure to lead is more likely to occur in children than in adults.

The following organs are sensitive to acute and chronic overexposure to cadmium: respiratory system, bone structure, kidneys, prostate and blood. Chronic overexposure to this product may produce the following signs and symptoms: shortness of breath, cough, osteoporosis and proteinuria.

Contains lead that can be absorbed by the body and lead to a risk of fetal damage, but as lead sulphides have a very low solubility the risk is assessed to be low.

Reproductive toxicity: This product contains teratogenic substances which can do long-term damage to human offspring. The effects on the child can be: 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.

Carcinogenic effects: This product contains substances which are considered or proven to be carcinogenic. The danger may lie in inhalation or ingestion.

Workers with the following pre-existing conditions warrant particular attention:

Sulphur: chronic pulmonary diseases

Lead: anaemia, pregnant or breast-feeding women and women of child bearing age. For biological monitoring, the preferred method is to measure blood lead levels.

Cadmium: osteoporosis, chronic kidney disease and emphysema. For biological monitoring, the preferred method is to measure urinary cadmium and blood cadmium levels. To detect early renal effects, Beta - microglobulin or retinal-binding proteins may be measured in urine.

Empirically known effects in humans

Prolonged or often repeated inhalation of dust can cause effects in the respiratory organs.

SECTION 12: Ecological information

12.1. Toxicity

Substance	Species	Test	Test duration	Result
Zinc	Fish	LC50	96h	0,116 mg/l
Lead	Fish (Oncorhynchus mykiss)	LC50	96h	0,14 mg/l
Copper	Fish (Rainbow salmon)	LC50	96h	0,017 mg/l

12.2. Persistence and degradability

Substance	Biodegradability	Test	Result
	These substances are not readily degradable.		

12.3. Bioaccumulative potential

Substance	Potential bioaccumulation	LogPow	BFC
	No data available.		

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

PBT and vPvB criteria do not apply to inorganic substances.

12.6. Other adverse effects

No special

SECTION 13: Disposal considerations

13.1. Waste treatment methods

According to EC-Regulation 1907/2006 (REACH)

The product is covered by the regulations on dangerous waste.
The product can possibly cause harmful contamination of soil and water.

Waste

EWC code
06 04 05

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. (PbS, CuFeS2)
14.3. Transport hazard class(es)	9
14.4. Packing group	III
Notes	Danger number: 90
Tunnel restriction code	E

IMDG

UN-no.	3077
Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (PbS, CuFeS2)
Class	9
PG*	III
EmS	F-A, S-F
MP**	Yes
Hazardous constituent	-

IATA/ICAO

UN-no.	3077
Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (PbS, CuFeS2)
Class	9
PG*	III

14.5. Environmental hazards

Marpol Annex V: Harmful to Marine Environment, HME - YES

14.6. Special precautions for user

No information

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

Material Hazardous only in Bulk, MHB
Cargo group A and B
Bulk Cargo Shipping Name (BCSN): Metal Sulphide Concentrate

(*) 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. 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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According to EC-Regulation 1907/2006 (REACH)

Additional information

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Sources

EC regulation 1907/2006 (REACH)
Directive 2000/532/EC
EC Regulation 1272/2008 (CLP)
EH40/2005

15.2. Chemical safety assessment

No

SECTION 16: Other information

Full text of H-phrases as mentioned in section 3

H302 - Harmful if swallowed.
H332 - Harmful if inhaled.
H351 - Suspected of causing cancer.
H360 - May damage fertility or the unborn child.
H372 - Causes damage to organs through prolonged or repeated exposure.
H411 - 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.

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)**

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

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