

SAFETY DATA SHEET

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

1.1. Product identifier

Trade name

Tara Zinc Concentrate

Product no.

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REACH registration number

Not needed - excempted 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

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1.3. Details of the supplier of the safety data sheet

Company and address

Boliden 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; H360 Carc. 2; H351

Aquatic Chronic 3; H412

See full text of H-phrases in section 2.2.

2.2. Label elements

Hazard pictogram(s)





Signal word

Danger!

Hazard statement(s)

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

May damage fertility or the unborn child. (H360)

Suspected of causing cancer. (H351)

Harmful to aquatic life with long lasting effects. (H412)

General

Prevention Avoid breathing dust. (P261).

Do no eat, drink or smoke when using this product. (P270).

Safety Wear protective gloves/protective clothing/eye protection/face protection. statement(s)

(P280).

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

Storage Store locked up. (P405).

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

Identity of the substances primarily responsible for the major health hazards

Zinc concentrate is a naturally occuring UVCB substance, obtained from crushed zinc ore by conventional mineral processing, including: Zinc, Lead, Cadmium.

2.3. Other hazards

Additional labelling

Additional warnings

VOC

SECTION 3: Composition/information on ingredients

3.1. Substances

NAME: Zinc concentrate

IDENTIFICATION NOS.: CAS-no: 999999-99-4 EC-no: 310-127-6

CONTENT: 100%

CLP CLASSIFICATION: STOT RE 1, Carc. 2, Repr. 1A, Aquatic Chronic 3

H351, H360, H372, H412

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

Zinc concentrate is a UVCB substance, including (name (EC/CAS), concentration): Zinc (231-175-3/7440-66-6) 50-60%, Lead (231-100-4/7439-92-1) 1-5%, Cadmium (231-152-8/7440-43-9) 0,1-0,25%.

Description: Metal concentrate of zinc ore.

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

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

Take off contaminated clothes. Wash the skin with soap and water.

Eye contact

Remove contact lenses. Flush eyes immediately with plenty of water (20-30 ℃) 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 can 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 direct contact with spilled substances. Avoid inhalation of vapours from waste material.

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.

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

Consider putting up waste collecting trays/basins to prevent leakage to the surroundings. See section 8 for information on personal protection. Avoid direct contact with the product. Avoid producing dust when handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Always store in containers of the same material as the original. 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

Follow work practices that minimise dust generation. For some operations an approved dust respirator may be needed and worn. If the product evolves fumes from oxidation wear an approved respirator for thermally generated particulates and acid gases.

Skin protection

Use protective clothing.

Hand protection

Use protective gloves.

Eye protection

Wear eye protection.



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Form Colour Odour pH Viscosity Density (g/cm3)

Solid - - 4,05

Phase changes

Melting point (°C) Boiling point (°C) Vapour pressure (mm Hg)

Data on fire and explosion hazards

Flashpoint ($^{\circ}$ C) Ignition ($^{\circ}$ C) Self ignition ($^{\circ}$ C)

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Explosion limits (Vol %) Oxidizing properties

- None

Solubility

Solubility in water n-octanol/water coefficient

Insoluble -

9.2. Other information

Solubility in fat Additional information

Explosive properties: None

Solubility in organic solvents: Insoluble

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is stable.

10.2. Chemical stability

The product is stable under the conditions noted in section 7.

10.3. Possibility of hazardous reactions

Polymerisation does not occur.

10.4. Conditions to avoid

None known.

10.5. Incompatible materials

Uncontrolled contact with strong acids.

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

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

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

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.

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

SubstanceSpeciesTestTest durationResultZincFishLC5096h0,116 mg/lLeadFish (Oncorhynchus mykiss)LC5096h0,14 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

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

SECTION 13: Disposal considerations

13.1. Waste treatment methods

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

opecine labeling

Contaminated packing

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

SECTION 14: Transport information

Not listed as dangerous goods under ADR and IMDG regulations.

14.1 – 14.4

ADR/RID

14.1. UN number

14.2. UN proper shipping name

14.3. Transport hazard

class(es)

14.4. Packing group

Notes



Tunnel restriction code

IMDG

UN-no.

Proper Shipping Name

Class

PG*

EmS

MP**

Hazardous constituent

IATA/ICAO

UN-no.

Proper Shipping Name

Class

PG*

14.5. Environmental hazards

Marine pollutant: No

Marpol Annex V: NOT Harmful to Marine Environment, Not HME

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

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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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

H351 - Suspected of causing cancer.

H360 - May damage fertility or the unborn child.

H372 - Causes damage to organs through prolonged or repeated exposure.

H412 - Harmful to aquatic life with long lasting effects.

The full text of identified uses as mentioned in section 1



Other symbols mentioned in section 2

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

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)

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

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