

# SAFETY DATA SHEET

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

### 1.1. Product identifier

**Trade name**

Garpenberg Gravimetric Concentrate

**Product no.**

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**REACH registration number**

Not needed – exempted from Reach-registration. (UVCB)

**Other means of identification**

Pb-9-Au

### 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 address**Boliden Mineral AB  
Finnforsvägen 4  
SE-936 81 Boliden  
Sweden

Tel +46 910 77 40 00

**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

Carc. 2; H351  
Repr. 1A; H360  
STOT RE 1; H372  
Aquatic Acute 1; H400  
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)**

- Suspected of causing cancer. (H351)
- May damage fertility or the unborn child. (H360)
- Causes damage to organs through prolonged or repeated exposure. (H372)
- Very toxic to aquatic life. (H400)
- Toxic to aquatic life with long lasting effects. (H411)

<b>Safety statement(s)</b>	<p><b>General</b> -</p> <p><b>Prevention</b> Obtain special instructions before use. (P201). Do not breathe dust. (P260). Avoid release to the environment (P273). Wear protective gloves/protective clothing/eye protection/face protection. (P280).</p> <p><b>Response</b> IF exposed or concerned: Get medical advice/attention. (P308+P313).</p> <p><b>Storage</b> Store locked up (P405).</p> <p><b>Disposal</b> Dispose of contents/container to an approved waste disposal plant. (P501).</p>
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**Identity of the substances primarily responsible for the major health hazards**

Lead - Gold gravimetric concentrate is a naturally occurring UVCB, obtained from crushed lead ore by conventional mineral processing, including: Lead, Cadmium.

**2.3. Other hazards**

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**Additional labelling**

-

**Additional warnings**

-

**VOC**

-

**SECTION 3: Composition/information on ingredients**

**3.1. Substances**

NAME:	Pb-9-Au
IDENTIFICATION NOS.:	-
CONTENT:	100%
CLP CLASSIFICATION:	Carc. 2, Repr. 1A, STOT RE 1, Aquatic Acute 1, Aquatic Chronic 2 H351, H360, H372, H400, H411

**3.2. Mixtures**

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

**Other informations**

Gravimetric concentrate is a UVCB substance, including (name (EC/CAS), concentration): Lead (231-100-4/7439-92-1) 5-20%, Cadmium (231-152-8/7440-43-9) <0,04%.

Description: metal concentrate. (The metals are mostly bound as sulphides.)

This product is a gravimetric concentrate largely consisting of lead mineral (e.g. Galena (PbS)) and elementary gold and silver grains.

The gravimetric concentrate is obtained from crushed lead ore by conventional mineral processing as grinding and gravimetric concentrating by a Knelson separator.

## 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. 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 (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

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.

### 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

According to EC-Regulation 1907/2006 (REACH)

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.

Keep away from heat. Keep away from sources of ignition. Do not ingest. Do not breathe dust. Wear suitable protective clothing.

## 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

Lead and inorganic compounds (as Pb) CAS: 7439-92-1  
Limit value - Eight hours: 0,15 mg/m<sup>3</sup>

Cadmium & cadmium compounds as total dust except CdO fume & CdS pigments (as Cd)  
Limit value - Eight hours: 0,025 mg/m<sup>3</sup>

#### DNEL / PNEC

PNEC (Lead): 6.5 µg/L  
Exposure: Freshwater  
Remarks: statistical extrapolation

### 8.2. Exposure controls

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

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

Use only CE marked protective equipment.

#### Respiratory Equipment

No specific requirements.

#### Skin protection

Use protective clothing.

#### Hand protection

According to EC-Regulation 1907/2006 (REACH)

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	Solid
Colour	Gray
Odour	None
pH	No data available.
Viscosity	No data available.
Density (g/cm <sup>3</sup> )	No data available.

### Phase changes

Melting point (°C)	No data available.
Boiling point (°C)	No data available.
Vapour pressure	No data available.

### Data on fire and explosion hazards

Flashpoint (°C)	No data available.
Ignition (°C)	No data available.
Self ignition (°C)	No data available.
Explosion limits (Vol %)	No data available.

### Solubility

Solubility in water	Insoluble
n-octanol/water coefficient	No data available.

### 9.2. Other information

Solubility in fat (g/L)	Insoluble
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## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No data available

### 10.2. Chemical stability

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

### 10.3. Possibility of hazardous reactions

No special

### 10.4. Conditions to avoid

Avoid dust formation and contact with strong acids.

### 10.5. Incompatible materials

Strong acids, strong bases, strong oxidizing agents, and strong reductants 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

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

### Acute toxicity

Substance	Species	Test	Route of exposure	Result
lead	Rat	LD50	Dermal	> 2000 mg/kg bw (lead oxide)
lead	Rat	LC50	Inhalation	> 5.05 mg/L air, 4h (Lead oxide)
lead	Rat	LD50	Oral	>2000 mg/kg (dibasic lead phosphite)

### Skin corrosion/irritation

No data available.

### Serious eye damage/irritation

No data available.

According to EC-Regulation 1907/2006 (REACH)

## Respiratory or skin sensitisation

No data available.

## 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

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.

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.

## SECTION 12: Ecological information

### 12.1. Toxicity

Substance	Species	Test	Duration	Result
Lead	Fish (Oncorhynchus mykiss)	LC50	96 h	0,14 mg/l

### 12.2. Persistence and degradability

Substance	Biodegradability	Test	Result
No data available.			

### 12.3. Bioaccumulative potential

Substance	Potential bioaccumulation	LogPow	BCF
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 ecotoxic substances which can have damaging effects on water-organisms. 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.

#### 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

### 14.1 – 14.4

This product is covered by the conventions on dangerous goods.

#### ADR/RID

14.1. UN number	3077
14.2. UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
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.
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.
Class	9
PG*	III

### 14.5. Environmental hazards

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

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

Not applicable

(\*) 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

-

#### 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

According to EC-Regulation 1907/2006 (REACH)

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.

H400 - Very toxic to aquatic life.

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

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 antiveneni 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: Giftinformasjonsentralen 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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