



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

### 1.1 Product designation

Product Name: Uddeholm CoolMould and Weldpak  
Product: Alloys containing Beryllium Copper

### 1.2 Identified uses of the substance/mixture and uses advised against

Applications: Utilities Industry

### 1.3 Further information on the company/undertaking

**Manufacturer:** Uddeholms AB

**Address:** Uvedsvägen 15  
S-683 85 Hagfors  
Sweden

**Contact:** [Hse@uddeholm.com](mailto:Hse@uddeholm.com)

### 1.4 Emergency telephone number

In acute emergencies: Call 112!

## SECTION 2: Hazards Identification

### 2.1 Classification of the substance/mixture

Classification according to (EC) No 1272/2008 and the amendments to it.

#### 2.1.1 Health hazards:

<b>Respiratory sensitization</b>	Category 1	<b>H334</b> - May cause allergy- or asthma symptoms or breathing difficulties if inhaled.
<b>Skin sensitization</b>	Category 1	<b>H317</b> – May cause an allergic skin reaction.
<b>Carcinogenicity</b>	Category 1B	<b>H350i</b> – May cause cancer by inhalation.

#### 2.1.2 Physical hazards:

Not classified for physical hazards.

#### 2.1.3 Environmental hazards:

Not classified for environmental hazards.

## 2.2 Labeling

Pictograms



## 2.3 Other hazards

Hazard classifications:

**H350i** - May cause cancer by inhalation.

**H317** - May cause allergic skin reaction.

**H334** - May cause allergy or asthma symptoms or breathing difficulties if inhaled.

**H372** - Causes damage to organs (respiratory system) through prolonged or repeated exposure by inhalation.

Precautionary statements:

**P201** - Obtain special instructions before use.

**P202** - Do not use the product until you have read and understood the precautionary statements.

**P260** - Do not inhale dust or smoke.

**P270** - Do not eat, drink or smoke when using this product.

**P272** - Contaminated work clothing should not be removed from the workplace.

**P280** - Wear protective gloves, protective clothing, eye protection, face protection.

## SECTION 3: Composition/information on ingredients

### 3.2 Contents/mixtures

Substance	Identification	Classification	Concentration (%)
Kopper	CAS-nr: 7440-50-8 EG-nr: 231-159-6	H335	96,3 – 99,5
Cobalt	CAS-nr: 7440-48-4 EG-nr: 231-158-0	R42/43 H317, H334, H351	0 - < 2,7
Nickel	CAS-nr: 7440-02-0 EG-nr: 231-111-4	R43 H317, H335, H351, H373	0 - < 2,2
Beryllium	CAS-nr: 7440-41-7 EG-nr: 231-150-7	R49, R26, R25-48/23, R36/37/38, R43 H317, H334, H350i, H372	0,15 - < 2
Zirconium	CAS-nr: 7440-67-7 EG-nr: 231-176-9	H228, H250, H251, H261, H315, H317, H319, H335, H372	0 < 0,5

## SECTION 4: First aid measures

If exposure or uncertainty: get medical attention/advice. Get medical attention if symptoms occur. Wash contaminated clothing before reuse. As supplied, there is no immediate medical risk with the beryllium products in article form. First aid measures included provided are to particulate beryllium products.

#### 4.1 Description of first aid measures

<b>Inhalation</b>	If symptoms are developed, move victim to fresh air. Breathing-difficulties caused by inhalation of particulate requires immediate removal to fresh air. If breathing stops, then perform artificial respiration and call for an ambulance.
<b>Skin contact</b>	Take off contaminated clothing and wash before reuse. Thoroughly wash skin cuts or wounds so that all particles are removed from the wound. Seek medical attention for wounds that are difficult to thoroughly clean. Treat cuts and sores in the skin with general first-aid techniques, such as cleaning, disinfection and protection to prevent wound infection and contamination before further work is occupied. Seek medical attention if irritation persists. Materials that deliberately implanted or stuck under the skin must be removed.
<b>Eye contact</b>	Rinse immediately with plenty of water for at least 15 minutes, lifting lower and upper eyelids periodically. Consult with a doctor if symptoms persist.
<b>Ingestion</b>	Contact a doctor immediately if a piece gets swallowed and show this safety data sheet or product label. Induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person.

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

May cause an allergic skin reaction. May cause an allergic respiratory reaction. Prolonged exposure may cause chronic effects.

#### 4.3 Any immediate medical attention and special treatment needed

##### Treatment of Chronic berylliosis

There exists no known curative treatment for berylliosis today. Prednisone or other corticosteroids are the most specific treatment methods currently available. They are used to inhibit the immunological reaction and can be effective in reducing the signs and symptoms of chronic berylliosis. In cases where steroid therapy has had only partial or minimal effect, other immunosuppressive agents such as cyclophosphamide, cyclosporine, or methotrexate being used instead. The later funds are pending investigation. Besides that, in view of the potential side effects that all immunosuppressive agents may lead to including steroids such as prednisone, they should be used only under a doctor's direct supervision. In general, these drugs should be reserved for cases where serious symptoms and/or severe loss of lung function occur. Other sump tomato therapies, such as acid, inhaled steroids or bronchodilator agent obtainable prescription of some doctors and can be proved effective in some cases.

The decision on when and which medications to be used for the treatment is up to the individual doctor to decide. In most cases, reserved treatment of individuals with symptoms and measurable loss of lung function. The advantage to begin an oral steroid treatment, before signs or symptoms become noticeable, remains a medically unresolved problem.

The effect of continuous low-level exposure to beryllium is unknown for individuals who are sensitized to beryllium or who have been diagnosed with chronic berylliosis. In general, it is recommended that individuals who are sensitized to beryllium or have CBD beryllium terminate their occupational exposure to beryllium.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

#### Suitable extinguishing media

The product is not combustible. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

#### Unsuitable extinguishing media

Do not use water to extinguish fires around areas involving molten metal due to the risk of steam explosions.

### 5.2 Special hazards arising from the substance or mixture

Not available.

### 5.3 Advice for firefighters

Firefighters should wear full protective clothing including breathing apparatus.

Move container from fire area if this can be done without risk. Water runoff can cause environmental damage.

Self-contained breathing apparatus must be worn by firefighters or other persons potentially exposed to the particulate smoke emitted by a fire.

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

In solid form this material causes no special clean-up problems. Wear appropriate protective equipment and clothing during cleaning of debris or dust of the product.

### 6.2 Environmental precautions

Avoid release to the environment. In the event of a spill or accidental release, the competent authorities need to be notified in accordance with all applicable regulations. Prevent further leakage or spillage if it can be done safely. Keep out of sewers, watercourses or on the ground and in the aquatic environment.

### 6.3 Methods and materials for containment and cleaning

Clean up in accordance with all applicable regulations.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Obtain special safety instructions before use. Do not use the product until you have read and understood safety instructions. Minimize dust generation and accumulation. Avoid breathing dust/smoke. Use protective gloves, goggles, protective clothing and face protection. Wear respiratory protection. Wash thoroughly after handling. Do not eat, drink or smoke while working. Contaminated work clothing should not be removed from the workplace.

## 7.2 Conditions for safe storage, including any pollution

The store should be locked up. Avoid contact with acids and bases. Avoid contact with oxidizing agents.

## 7.3 Specific end use

Not available.

# SECTION 8: Exposure controls/personal protection

## 8.1 Control parameters

### 8.1.1 Occupational exposure limit values (Sweden)

Substance	Type of limit	Value (mg/m <sup>3</sup> )	Form
Beryllium (CAS- 7440-41-7)	NGV	0,0002 (0,0006)*	Total dust
Cobalt (CAS- 7440-48-4)	NGV	0,02	Inhalable dust
Copper (CAS- 7440-50-8)	NGV	1	Total dust
		0,2	Respirable dust
Nickel (CAS- 7440-02-0)	NGV	0,5	Total dust

\* 0,0006 is the occupational exposure limit during the transition period that is seven years

### 8.1.2 Biological limit values

No biological exposure limits has been detected for the constituents.

### 8.1.3 Recommended monitoring procedures

#### Wet methods:

Machine Use is normally carried out with a flow of lubricating liquid/coolant, which helps to reduce airborne particles. However, by driving the machine with coolant containing small divided particles in suspension, may cause the concentration increases to such a point where the particles can become airborne during use. Some processes such as sanding and grinding may require a complete covered containment and local exhaust ventilation. Prevent coolant spill on floor areas, external structures or operators' clothing. Use a coolant filtering system to remove particles from the cooling liquid.

#### Work practies:

Develop working process and procedures to prevent particles that come in contact with workers' skin, hair or personal clothing. If the working practices and / or procedures are not effective enough to control exposure and prevent airborne or visual particles from being stored on skin, hair or clothing, provide appropriate when washing / cleaning facilities. Written procedures should describe the plant's requirements for protective clothing and personal hygiene. These requirements for clothing and personal hygiene helps prevent the spread of the particles to areas that are not used for production or that they comply with the staff home. Never use compressed air to clean work clothes or other surfaces.

#### Housekeeping:

Use a vacuum or wet cleaning methods for removing particles from surfaces. Be certain to de-energize the electrical system before beginning wet cleaning. Use a vacuum cleaner with a HEPA filter. Do not use compressed air, brushes, or regular vacuum cleaner to remove particles from the

surfaces, as this may lead to increased exposure to airborne particles. Follow the manufacturer's instructions when performing maintenance on the vacuum cleaner with a HEPA filter used for cleaning hazardous materials.

#### 8.1.4 Exposure guidelines

Sweden Threshold Limit Values: Skin designation  
Cobalt (CASnr- 7440-48-4).

### 8.2 Exposure Controls

#### Individual precautions:

##### Eye/face protection

Use approved safety goggles, face shields and / or cara-welding helmets when there is a risk of eye injury, particularly during use, which generate particles so that the melting, molding, sawing, sanding, grinding, welding and powder handling.

##### Skin protection

Use protective gloves to prevent contact with particles or solvents. Use protective gloves to prevent cuts and abrasions during handling. Personal protection equipment in accordance with current CEN standards and in cooperation with the supplier of protective equipment. Protective overalls or work clothes must be worn by persons who may come into contact with the particles during activities such as sawing, etc. If this material comes in contact with the skin it can cause, in some sensitive individuals, an allergic skin reaction. Particles trapped under the skin have the potential to create sensitization and skin lesions.

##### Respiratory protection

When airborne exposures exceed or have the potential to exceed the work area exposure limits, must approved respirators be used as specified by a safety engineer or another qualified professional. Those who use gas masks must undergo a medical evaluation to determine if they are physically able to use a gas mask.

##### Termal hazards

Not available.

##### Hygiene measures

Handle in accordance with good industrial hygiene and safety practices.

##### Environmental exposure controls

The environmental manager must be informed of all major releases.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

<b>Physical state</b>	Solid
<b>Colour</b>	Copper
<b>Odour</b>	Not available
<b>pH-value</b>	Not available
<b>Flammability</b>	Not available
<b>Solubility in water</b>	Not available

### 9.2 Other information

Vapour pressure: 0,72 hPa (estimated)

Density: 8,86 g/cm<sup>3</sup> (estimated)

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Not available.

### 10.2 Chemical stability

Material is stable under normal conditions.

### 10.3 Possibility for hazardous reactions

Hazardous polymerization does not occur.

### 10.4 Conditions to avoid

Avoid dust formation. Contact with acids. Contact with alkalis.

### 10.5 Incompatible materials

Strong acids, alkalies and oxidizing agents.

### 10.6 Hazardous decomposition products

No hazardous decomposition products are known.

## SECTION 11: Toxicological information

### General information:

#### Inhalation

May cause an sensitization by inhalation. May cause an allergy or asthma symptoms or breathing difficulties if inhaled. May cause an

damage to organs (respiratory system) through prolonged or repeated exposure.

**Skin contact** May cause an allergic skin reaction.

**Eye contact** Not likely, due to the form of the product.

**Ingestion** Not likely, due to the form of the product.

### 11.1 Information on toxicological effects

**Acute toxicity** Can cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.

**Skin corrosion** Not likely, due to the form of the product.

**Serious eye damage** Not likely, due to the form of the product.

**Respiratory sensitization** May cause allergy or asthma symptoms or breathing difficulties if inhaled.

**Skin sensitisation** May cause allergic skin reaction.

**Reproductive damage** Classification not possible due to lack of data.

**Carcinogenic** Cancer Hazard. IARC Monographs. Overall assessment of carcinogenicity:

Beryllium (CAS 7440-41-7) 1 Carcinogenic to humans.

Cobalt (CAS 7440-48-4) 2B Possibly carcinogenic to humans.

Nickel (CAS 7440-02-0) 2B Possibly carcinogenic to humans.

**Reproductive toxicity** Not available.

**Specific target organ Toxicity** Single exposure can cause allergy or asthma symptoms or breathing difficulties if inhaled. Repeated exposure can cause damage to organs (respiratory system) through prolonged or repeated exposure.

**Aspiration hazard** Classification not possible due to lack of data.

**Other information** Symptoms may be delayed.

## SECTION 12: Ecological information

### 12.1 Persistence and degradability

There is no data on the degradability of this product.

### 12.2 Bioaccumulative potential

Not available.

### 12.3 Mobility in soil

Not available.

### 12.4 Results of PBT and vPvBB assessment

Not a PBT or vPvB substance or mixture.



## 12.5 Other adverse effects

Not available.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

<b>Residual waste</b>	Empty containers or without casing may contain residues. Product and packaging must be disposed of in a safe manner.
<b>Contaminated packaging</b>	Empty containers should be taken to an approved waste handling site for recycling or disposal / incineration. Since emptied containers may contain residues, should the warnings on the label be followed also after the container has been emptied.
<b>EU waste code</b>	Waste codes should be assigned in discussion between the user, the producer and the company that takes care of the waste. Waste codes should be assigned by the user and be based on the intended uses.
<b>Disposal information</b>	The material should be recycled if possible. Recommendations for waste management are based on the material condition at the time when it was delivered. Disposal must be in accordance with applicable laws and regulations and with the specifications at the time of disposal.

## SECTION 14: Transport information

### 14.1 ADR (European Agreement concerning the International Carriage of Dangerous Goods by Road).

Not regulated as dangerous.

### 14.2 RID (Regulations concerning the International Carriage of Dangerous Goods).

Not regulated as dangerous.

### 14.3 ADN (The European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways).

Not regulated as dangerous.

### 14.4 IATA (International Air Transport Association).

Not regulated as dangerous.

### 14.5 IMDG (International Maritime Dangerous Goods Code).

Not regulated as dangerous.

## SECTION 15: Regulatory information

### 15.1 Regulations / legislation for the substance or mixture Safety, health and environment

#### 15.1.1 EU Regulations

*Regulation (EC) no. 1005/2009 on substances that deplete the ozone layer. Annex II with amendments.*

Not listed.

*Regulation (EC) no.850/2004 on persistent organic pollutants.*

*Annex I.*

Not listed.

*Regulation (EC) no.689/2008 concerning the export and import of dangerous chemicals.*

*Annex I, Part 1.*

Not listed.

*Regulation (EC) no. 689/2008 concerning the export and import of dangerous chemicals.*

*Annex I, Part 2.*

Not listed.

*Regulation (EC) no. 689/2008 concerning the export and import of dangerous chemicals.*

*Annex I, Part 3.*

Not listed.

*Regulation (EC) no. 689/2008 concerning the export and import of dangerous chemicals.*

*Annex V.*

Not listed.

*Regulation (EC) no. 166/2006*

*Annex II Register of releases and transfers of pollutants.*

Copper (CAS- 7440-50-8).

Regulation (EC) no. 1907/2006 REACH Article 59 (10) list of candidates in the form in which it is currently published in the ECHA.

Not listed.

#### **15.1.2 Authorisations**

*Regulation (EC) no. 1907/2006 REACH Annex XIV substance for which a permit is required.*

Not listed.

*Regulation (EC) no. 1907/2006 REACH Annex XVII Restrictions on the marketing and use of certain dangerous substances as amended.*

Beryllium (CAS- 7440-41-7).

#### **15.1.3 Restrictions on use**

*Regulation (EC) no. 1907/2006 Annex XVII Substances whose use and placing on the market has been limited.*

Beryllium (CAS- 7440-41-7).

Nickel (CAS- 7440-02-0).

Zirconium (CAS- 7440-67-7).

*Directive 2004/37 / EC on protection of workers from risks related to exposure to carcinogens or mutagens at work.*

Beryllium (CAS- 7440-41-7).

*Directive 92/85 / EEC: measures to improve safety and health at work of pregnant workers who have recently given birth or are breastfeeding.*

Not listed.

#### **15.1.4 Other EU regulations**

*Directive 2012/18 / EC, if measures to prevent and limit the danger of major accidents involving dangerous substances.*

Beryllium (CAS- 7440-41-7).  
Zirconium (CAS- 7440-67-7).

*Directive 98/24 / EC concerning protection of the health and safety risks related to chemical reactions in the work.*

Beryllium (CAS- 7440-41-7).  
Cobalt (CAS- 7440-48-4).

Directive 94/33 / EC on protection of minors in the workplace.  
Beryllium (CAS- 7440-41-7).  
Cobalt (CAS- 7440-48-4).

#### **15.1.5 National regulations**

Young people under 18 years of age may not work with this product under the current EU Directive 94/33 / EC on protection of minors in the workplace.

#### **15.2 Chemical safety assessment**

No assessment of the chemical safety have been implemented.

### **SECTION 16: Other information**

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Review 2019-10-10 are updated with the new occupational exposure limit for beryllium.