

# Safety Data Sheet

according to Regulation (EC) No 1907/2006

## Cobalt-based Alloy Powder

Revision date: 10.03.2021

Product code: TS1919

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

#### 1.1. Product identifier

Cobalt-based Alloy Powder (Co-Cr-Mo-Si)

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

##### Use of the substance/mixture

Health services.

#### 1.3. Details of the supplier of the safety data sheet

Company	Stanford Advanced Materials
Address	23661 Birtcher Dr. Lake Forest, CA 92630 USA
	Tel: +1 (949) 407-8904

#### Further Information

Tel: +1 (949) 407-8904

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Regulation (EC) No. 1272/2008

Hazard categories:

Acute toxicity: Acute Tox. 4

Serious eye damage/eye irritation: Eye Irrit. 2

Respiratory or skin sensitisation: Resp. Sens. 1

Respiratory or skin sensitisation: Skin Sens. 1

Carcinogenicity: Carc. 1B

Reproductive toxicity: Repr. 2

Hazardous to the aquatic environment: Aquatic Chronic 4

Hazard Statements:

Harmful if swallowed.

Causes serious eye irritation.

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

May cause an allergic skin reaction.

May cause cancer by inhalation.

Suspected of damaging fertility.

May cause long lasting harmful effects to aquatic life.

Compact metal/alloy without hazards for human health or environment

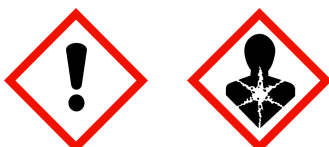
#### 2.2. Label elements

##### Regulation (EC) No. 1272/2008

##### Hazard components for labelling

none

##### Pictograms:



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### Additional advice on labelling

For this product, a hazard label is not required according to section 1.3.4 of Annex I of the CLP regulation.

### 2.3. Other hazards

No information available.

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

#### Chemical characterization

Co-Cr-Mo-Si: Co Bal. %, Cr 8.5%, Mo 28.5%, Si 2.6 %, (Ni,Fe) <3.0%

#### Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	GHS Classification			
7440-48-4	Cobalt			Bal. %
	231-158-0			
	Carc. 1B, Repr. 2, Acute Tox. 4, Eye Irrit. 2, Resp. Sens. 1, Skin Sens. 1, Aquatic Chronic 4; H350i H361f H302 H319 H334 H317 H413			
7440-47-3	Chromium			8.5 %

Full text of H and EUH statements: see section 16.

#### Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
	Specific Conc. Limits, M-factors and ATE		
7440-48-4	231-158-0	Cobalt	65,0-69,8 %
	oral: LD50 = 6171 mg/kg		

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### General information

Do not breathe gas/fumes/vapour/spray.

#### After inhalation

Provide fresh air.

#### After contact with skin

After contact with molten product, cool skin area rapidly with cold water.

#### After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water. In case of troubles or persistent symptoms, consult an ophthalmologist.

#### After ingestion

none

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

none

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

none

## SECTION 5: Firefighting measures

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### 5.1. Extinguishing media

#### Suitable extinguishing media

The product itself does not burn. Co-ordinate fire-fighting measures to the fire surroundings.

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

Non-flammable.

### 5.3. Advice for firefighters

none

## SECTION 6: Accidental release measures

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

#### General measures

No special measures are necessary.

### 6.2. Environmental precautions

No special measures are necessary.

### 6.3. Methods and material for containment and cleaning up

#### Other information

Take up mechanically.

### 6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

#### Advice on safe handling

Provide adequate ventilation.

#### Advice on protection against fire and explosion

No special measures are necessary.

### 7.2. Conditions for safe storage, including any incompatibilities

#### Requirements for storage rooms and vessels

No special measures are necessary.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Exposure limits (EH40)

CAS No	Substance	ppm	mg/m <sup>3</sup>	fibres/ml	Category	Origin
7440-47-3	Chromium	-	0.5		TWA (8 h)	WEL

### 8.2. Exposure controls

#### Protective and hygiene measures

Caution! Hot molten mass. Conditions to avoid: Skin contact

#### Eye/face protection

Tightly sealed safety glasses.

#### Hand protection

Wear protective gloves.

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### Skin protection

Use of protective clothing

### Respiratory protection

Provide adequate ventilation.

### Environmental exposure controls

No special measures are necessary.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state:	solid	
Colour:	silver grey	
Odour:	odourless	
Odour threshold:	not applicable	
pH-Value:		not determined

#### Changes in the physical state

Boiling point or initial boiling point and boiling range:		not determined
Sublimation point:		not determined
Softening point:		not determined
Pour point:		not determined
Flash point:		not determined
Sustaining combustion:		No data available

#### Flammability

Solid/liquid:		not determined
Gas:		not determined
Lower explosion limits:		not determined
Upper explosion limits:		not determined
Auto-ignition temperature:		not determined

#### Self-ignition temperature

Solid:		not determined
Gas:		not determined
Decomposition temperature:		not determined
Vapour pressure:		not determined
Vapour pressure:		not determined
Density:		not determined
Bulk density:		not determined
Water solubility:	The study does not need to be conducted because the substance is known to be insoluble in water.	

Partition coefficient n-octanol/water:		not determined
Viscosity / dynamic:		not determined
Viscosity / kinematic:		not determined
Flow time:		not determined
Relative vapour density:		not determined

### 9.2. Other information

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REF 102-306-00 Solidus: 1110°C, Liquidus: 1162°C

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

none

#### 10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

#### 10.3. Possibility of hazardous reactions

No risks worthy of mention.

#### 10.4. Conditions to avoid

none

#### 10.5. Incompatible materials

none

#### 10.6. Hazardous decomposition products

none

### SECTION 11: Toxicological information

#### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

##### ATEmix calculated

ATE (oral) 657,9 mg/kg

#### Acute toxicity

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
7440-48-4	Cobalt				
	oral	LD50 mg/kg	6171	Rat	

#### Further information

Toxicological data are not available.

### SECTION 12: Ecological information

#### 12.1. Toxicity

The product is not: Ecotoxic.

#### 12.2. Persistence and degradability

The product has not been tested.

#### 12.3. Bioaccumulative potential

The product has not been tested.

#### 12.4. Mobility in soil

The product has not been tested.

#### 12.5. Results of PBT and vPvB assessment

The product has not been tested.

#### 12.7. Other adverse effects

No information available.

#### Further information

Solubility in water (g/l): The study does not need to be conducted because the substance is known to be insoluble in water.

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### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

##### Disposal recommendations

For recycling, contact recycling exchanges.

##### Contaminated packaging

Non-contaminated packages may be recycled.

### SECTION 14: Transport information

#### 14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

##### Other applicable information

Not a hazardous material with respect to transportation regulations.

### SECTION 15: Regulatory information

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

##### EU regulatory information

##### Additional information

For this product, a hazard label is not required according to section 1.3.4 of Annex I of the CLP regulation.

##### National regulatory information

Water hazard class (D): - - non-hazardous to water

#### 15.2. Chemical safety assessment

For this substance a chemical safety assessment is not required.

### SECTION 16: Other information

#### Changes

This data sheet contains changes from the previous version in section(s): 2,3,4,5,6,7,8,9,10,11,12,13,14,15.

#### Classification for mixtures and used evaluation method according to Regulation (EC) No. 1272/2008 [CLP]

Classification	Classification procedure
Acute Tox. 4; H302	Calculation method
Eye Irrit. 2; H319	Calculation method
Resp. Sens. 1; H334	Calculation method
Skin Sens. 1; H317	Calculation method
Carc. 1B; H350i	Calculation method
Repr. 2; H361f	Calculation method
Aquatic Chronic 4; H413	Calculation method

#### Relevant H and EUH statements (number and full text)

H302	Harmful if swallowed.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H350i	May cause cancer by inhalation.
H361f	Suspected of damaging fertility.
H413	May cause long lasting harmful effects to aquatic life.

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### Further Information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

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*(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*

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