



ASP® & HSS non-Cobalt grades

Safety Information Sheet

Revision date: 07/11/2019

Version: 2.2

SECTION 1: Identification of the product and of the company/undertaking

1.1. Product identifier

Erasteel product : ASP® & HSS non-Cobalt grades
Product forms : Articles (see section 13.1): bars, sheets, strips, wire, edge-wire, etc. (massive forms)

1.2. Relevant identified uses of the product

1.2.1. Relevant identified uses

Use of the product : Production of metallic articles

1.3. Details of the supplier of the safety information sheet

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SECTION 2: Hazards identification

In case of melting, grinding or any other method of manufacturing creating dust, fume, or oxide, follow the recommendations of paragraph 8. Upon heating, dangerous fumes may be formed.

SECTION 3: Composition/information on ingredients

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Chromium	(CAS No) 7440-47-3 (EC no) 231-157-5	$3,5 \leq x\% \leq 5,5$	Not classified
Cobalt (trace element)	(CAS No) 7440-48-4 (EC no) 231-158-0 (EC index no) 027-001-00-9	< 1	Acute Tox. 4 (Oral), H302 Resp. Sens. 1, H334 Skin Sens. 1, H317 Carc. 1B, H350i Repr. 2, H361f Aquatic Chronic 4, H413
Nickel (trace element)	(CAS No) 7440-02-0 (EC no) 231-111-4 (EC index no) 028-002-00-7	< 1	Carc. 2, H351 STOT RE 1, H372 Skin Sens. 1, H317

Full text of H-phrases: see section 14

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : In any cases of doubt, or when symptoms persist, seek medical advice.
First-aid measures after skin contact : After contact with skin, wash immediately with plenty of water and soap. In case of skin irritation, consult a physician.

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

Symptoms/injuries : Allergic reactions.

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

In case of doubt or persistent symptoms, consult always a physician.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Coordinate fire-fighting measures to the fire surroundings.

5.2. Special hazards arising from the product

Fire hazard : The product itself does not burn.

5.3. Advice for firefighters

Protection during firefighting : In case of fire: wear self-contained breathing apparatus.
Other information : Do not allow run-off from fire-fighting to enter drains or water courses.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : See protective measures under point 7 and 8.

6.1.1. For non-emergency personnel

Protective equipment : Use personal protective equipment as required.

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6.1.2. For emergency responders

Protective equipment : Use personal protective equipment as required.

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Avoid generation of dust.

6.4. Reference to other sections

Treat the recovered material as prescribed in the section on waste disposal.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : May cause sensitisation especially in sensitive humans.

Precautions for safe handling : Avoid generation of dust.

Hygiene measures : Contaminated work clothing should not be allowed out of the workplace.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep away from: acids, oxidizing agents and reducing agents.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters (AT, BE, CH, DE, DK, FI, FR, SP, GB, IT, NL, PT, SE; other countries on request)

Chromium (7440-47-3)		
EU	IOELV TWA (mg/m ³) Notes	2 mg/m ³ (Chromium, anorg. CrII and CrIII compounds, insoluble)
Austria	MAK (mg/m ³) Remark (AT)	2 mg/m ³ (Chrommetall, anorganische Chrom(II)- und anorganische Chrom(III)-Verbindungen, unlöslich), (Sh)
Belgium	Limit value (mg/m ³)	0.5 mg/m ³
Denmark	Grænseværdie (langvarig) (mg/m ³) Anmærkninger (DK)	0.5 mg/m ³ (Chrom, pulver og opløselige chromi- og chromosalte, beregnet som Cr)
Finland	HTP-arvo (8h) (mg/m ³) Huomautus (FI)	0.5 mg/m ³ (Kromi ja sen (II, III)-yhdisteet)
France	VME (mg/m ³) Note (FR)	2 mg/m ³ Chrome (métal) * Valeur Limite d'Exposition Professionnelle Indicative
Spain	VLA-ED (mg/m ³) VLA-ED (ppm) Notes	2 mg/m ³ 2 ppm (Cromo metal, compuestos inorgánicos Cr(II) y Cr(III) insolubles, como Cr)
Sweden	nivågränsvärde (NVG) (mg/m ³) Anmärkning (SE)	0.5 mg/m ³ (Krom och dess oorg. II, III-föreningar, som Cr; totaldamm)
United Kingdom	WEL TWA (mg/m ³) Remark (WEL)	0.5 mg/m ³ (ChromiumII and ChromiumIII compounds, as Cr)
Switzerland	VME (mg/m ³) Remark (CH)	0.5 mg/m ³ (einatembare; Metall und Chrom-(III)-Verbindungen)
USA - ACGIH	ACGIH TWA (mg/m ³)	0.5 mg/m ³
USA - NIOSH	NIOSH REL (TWA) (mg/m ³)	0.5 mg/m ³
USA - OSHA	OSHA PEL (TWA) (mg/m ³) Remark (OSHA)	1 mg/m ³ (Chromium metal and insol. salts (as Cr))

Cobalt (7440-48-4)		
Austria	MAK (mg/m ³)	0.1 mg/m ³ (einatembare Fraktion), (III A2,H,Sah)
Austria	MAK Short time value (mg/m ³)	0.4 mg/m ³ (einatembare Fraktion) max. 4x15 min./Schicht, (III A2,H,Sah)
Belgium	Limit value (mg/m ³) Remark (BE)	0.02 mg/m ³ (fumées et poussières) (en Co)
Denmark	Grænseværdie (langvarig) (mg/m ³) Anmærkninger (DK)	0.01 mg/m ³ K
Finland	HTP-arvo (8h) (mg/m ³) Huomautus (FI)	0.02 mg/m ³ (Co)
Netherlands	Grenswaarde TGG 8H (mg/m ³)	0.02 mg/m ³
Spain	VLA-ED (mg/m ³) VLA-ED (ppm)	0.02 mg/m ³ (Cobalto elemental y compuestos inorgánicos, como Co) 15 µg/l F "(Cobalto en orina; Final de la semana laboral 1)" 1 µg/l F, S "(Cobalto en sangre; Final de la semana laboral 1)"
Sweden	nivågränsvärde (NVG) (mg/m ³) Anmärkning (SE)	0.02 mg/m ³ (C,H,S,2)

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Cobalt (7440-48-4)		
United Kingdom	WEL TWA (mg/m ³)	0.1 mg/m ³
Switzerland	VME (mg/m ³)	0.05 mg/m ³ (einatembarer Staub)
	VME (ppm)	30 µg/l Cobalt, Urin, b
USA - ACGIH	ACGIH TWA (mg/m ³)	0.02 mg/m ³
USA - NIOSH	NIOSH REL (TWA) (mg/m ³)	0.05 mg/m ³
USA - OSHA	OSHA PEL (TWA) (mg/m ³)	0.1 mg/m ³

Nickel (7440-02-0)		
Austria	MAK (mg/m ³)	0.5 mg/m ³
	MAK Short time value (mg/m ³)	2 mg/m ³
	Remark (AT)	(einatembare Fraktion) max. 4x15 min./Schicht, III A1, Sah)
Belgium	Limit value (mg/m ³)	0.1 mg/m ³ (composés solubles, en Ni) 0.2 mg/m ³ (composés insolubles inorganiques, en Ni) 1 mg/m ³ (métal)
Denmark	Grænseværdie (langvarig) (mg/m ³) Anmærkninger (DK)	0.05 mg/m ³ (Nikkel, pulver og støv, beregnet som Ni; K)
Deutschland	TRGS 900 Arbeitsplatzgrenzwert (mg/m ³) TRGS 900 Spitzenbegrenzung (mg/m ³)	0,006 mg/m ³ A: alveolengängige Fraktion 0,048 mg/m ³
Finland	HTP-arvo (8h) (mg/m ³) Huomautus (FI)	1 mg/m ³ (Ni)
France	VME (mg/m ³) Note (FR)	1 mg/m ³ (Nickel métal) * Valeur Limite d'Exposition Professionnelle Indicative
Spain	VLA-ED (mg/m ³) Notes	1 mg/m ³ Sen,r
Sweden	nivågränsvärde (NVG) (mg/m ³) Anmärkning (SE)	0.5 mg/m ³ (totaldamm, S, 1)
United Kingdom	WEL TWA (mg/m ³)	0.5 mg/m ³
Switzerland	VME (mg/m ³)	0.5 mg/m ³
	Remark (CH)	(einatembarer Staub)
USA - ACGIH	ACGIH TWA (mg/m ³)	0.2 mg/m ³ (inhalable) 0.1 mg/m ³ (soluble) 1.5 mg/m ³ (inhalable fraction)
USA - NIOSH	NIOSH REL (TWA) (mg/m ³)	0.015 mg/m ³
USA - OSHA	OSHA PEL (TWA) (mg/m ³)	1 mg/m ³

8.2. Exposure controls

- Appropriate engineering controls : Technical measures and the application of suitable work processes have priority over personal protection equipment.
- Personal protective equipment : Dust production: dust mask with filter type P3. Dustproof clothing. Gloves.



- Hand protection : EN-norms: EN 374.
- Skin and body protection : EN-norms: EN 13982.
- Respiratory protection : Filtering Half-face mask (EN 149).

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

- Physical state : Solid
- Colour : Steel.
- Odour : Odourless.
- Melting point : 1200 - 1500 °C
- Relative density : 7,4 - 8,8 (refer to Erasteel documentation for specific grades)
- Explosive properties : Not explosive.
- Oxidising properties : Not oxidizing.

9.2. Other information

No additional information available

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SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

The product in the delivered form is not dust explosion capable; the enrichment of fine dust however leads to the danger of dust explosion.

10.5. Incompatible materials

Acids. Oxidizing agents and reducing agents.

10.6. Hazardous decomposition products

Metal oxides.

SECTION 11: Disposal considerations

11.1. Waste treatment methods

Waste treatment methods : Material recycling possible. Collection and re-processing of shavings, cuttings, etc.

Ecology - waste materials : Do not dispose of waste into sewer. Dispose according to legislation.

SECTION 12: Transport information

Not regulated for transport

SECTION 13: Regulatory information

13.1. EU-Regulations

Article under REACH Regulation 1907/2006/EC: according to REACH, there is no legal obligation to provide a Safety Data Sheet for an Article. However, to be able to provide information on the safe use of this Article, the present Safety Information Sheet has been worked out.

No REACH Annex XVII restrictions

Contains no substance on the REACH candidate list

SECTION 14: Other information

Abbreviations and acronyms : ACGIH American Conference of Governmental Industrial Hygienists
CAS Chemical Abstract Service
EINECS European Inventory of Existing Commercial Chemical Substances
IOELV Indicative Occupational Exposure Limit Value
NIOSH National Institute of Occupational Safety and Health
OSHA Occupational Safety and Health Administration
PEL Permissible Exposure Limits
REL Recommended Exposure Limits
TWA Time Weighted Average.

Other 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 information sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In case of mixing the product with other products or in case of processing, the information on this safety information sheet is not necessarily valid for the new made-up material.

Full text of H- and EUH-phrases:

Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Chronic 4	Hazardous to the aquatic environment — Chronic Hazard, Category 4
Carc. 1B	Carcinogenicity (inhalation) Category 1B
Carc. 2	Carcinogenicity, Category 2
Repr. 2	Reproductive toxicity, Category 2
Resp. Sens. 1	Sensitisation — Respiratory, category 1
Skin Sens. 1	Sensitisation — Skin, category 1
STOT RE 1	Specific target organ toxicity — Repeated exposure, Category 1
H302	Harmful if swallowed
H317	May cause an allergic skin reaction
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
H350i	May cause cancer by inhalation
H351	Suspected of causing cancer
H361f	Suspected of damaging fertility
H372	Causes damage to organs through prolonged or repeated exposure
H413	May cause long lasting harmful effects to aquatic life

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product