

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

Product form	: Bars, sheets, strips, wire, edge-wire, etc. (massive solid forms)
Trade name	: ASP® & HSS (Co<1% Ni<1%), ASP® 2003, ASP® 2004 HS, PM M4HS, ASP® 2004, PM M4, ASP® 2005, ASP® 2005 S, ASP® 2008, ASP® 2009, ASP® 2011, PM 9, PM A11, ASP® 2012, ASP® 2023, ASP® 2023S, PM M50, ASP® 2053, PM 53, ASP® 2062, ASP® APZ10, ASP® 420H, PM 420H, ABC III, BT21, E M2, E M2 Bi-Metal Sulfur, E M2 Low Carbon, E M1, E M7, Grindamax V3, E M3:2, E M4, E M50
Product code	: FDS006M-UE
Type of product	: Steel based Alloy, High speed steel

1.2. Relevant identified uses of the substance or mixture and uses advised against**1.2.1. Relevant identified uses**

Use of the substance/mixture : Production of metallic articles

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Erasteel
100avenue de Suffren, 75015 Paris
T +33 (0)1 45 38 63 62 - F +33 (0)1 45 38 37 45
erasteel.info@erasteel.com - http://www.erasteel.com

1.4. Emergency telephone number

Country	Organisation/Company	Address	Emergency number	Comment
	National Poisons Information Service (Belfast Centre) Royal Victoria Hospital	Grosvenor Road BT12 6BA Belfast	0870 600 6266 (UK only),	
United Kingdom	National Poisons Information Service (Birmingham Centre) City Hospital	Dudley Road B18 7QH Birmingham	0344 892 0111	Only for healthcare professionals
United Kingdom	National Poisons Information Service (Cardiff Centre) University Hospital Llandough	Penlan Road CF64 2XX Cardiff	0344 892 0111	Only for healthcare professionals
United Kingdom	National Poisons Information Service (Edinburgh Centre) Royal Infirmary of Edinburgh	Little France Crescent EH16 4SA Edinburgh	0344 892 0111	Only for healthcare professionals
United Kingdom	Guy's & St Thomas' Poisons Unit Medical Toxicology Unit, Guy's & St Thomas' Hospital Trust	Avonley Road SE14 5ER	+44 20 7188 7188	
United Kingdom	National Poisons Information Service (Newcastle Centre) Regional Drugs and Therapeutics Centre	16/17 Framlington Place Newcastle-upon-Tyne NE2 4AB Newcastle	0344 892 0111	Only for healthcare professionals

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****Classification according to Regulation (EC) No. 1272/2008 [CLP]**

Carcinogenicity (inhalation) Category 1B

H350i

HSS (Co<1% Ni<1%)

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

Reproductive toxicity, Category 1B

H360F

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

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)



GHS08

Signal word (CLP)

: Danger

Contains

: Cobalt; Nickel

Hazard statements (CLP)

: H350i - May cause cancer by inhalation.

H360F - May damage fertility.

Precautionary statements (CLP)

: P201 - Obtain special instructions before use.

P202 - Do not handle until all safety precautions have been read and understood.

P280 - Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

P308+P313 - IF exposed or concerned: Get medical advice/attention.

P405 - Store locked up.

P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

EUH-statements

: EUH208 - Contains Cobalt(7440-48-4), Nickel(7440-02-0). May produce an allergic reaction.

2.3. Other hazards

Other hazards which do not result in classification : In case of melting, grinding, welding or any other method of manufacturing creating dust, oxide fumes, or oxide, follow the recommendations of paragraph 8. Upon heating, dangerous fumes may be formed (see section 10.6).

Contains no PBT/vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

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 - 20	Not classified
Cobalt	CAS-No.: 7440-48-4 EC-No.: 231-158-0 EC Index-No.: 027-001-00-9	0.1 – 1	Acute Tox. 4 (Oral), H302 Resp. Sens. 1, H334 Skin Sens. 1, H317 Carc. 1B, H350i Repr. 1A, H360F Aquatic Chronic 4, H413

HSS (Co<1% Ni<1%)

Safety Data Sheet

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Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Nickel	CAS-No.: 7440-02-0 EC-No.: 231-111-4 EC Index-No.: 028-002-00-7	0.1 – 1	Skin Sens. 1, H317 Carc. 2, H351 STOT RE 1, H372

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

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: Never induce swallowing by an unconscious person. In all cases of doubt, or when symptoms persist, seek medical advice.
First-aid measures after inhalation	: IF INHALED: Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a doctor.
First-aid measures after skin contact	: After contact with skin, wash immediately with plenty of water and soap. If skin irritation occurs: Get medical advice/attention.
First-aid measures after eye contact	: In case of contact with the eyes : Wash with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing.
First-aid measures after ingestion	: Ingestion is not considered a potential route of exposure.

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

Symptoms/effects	: Allergic reactions.
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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	: Co-ordinate fire-fighting measures to the fire surroundings.
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5.2. Special hazards arising from the substance or mixture

Fire hazard	: The product itself does not burn.
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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.
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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.
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6.2. Environmental precautions

Do not allow to enter into surface water or drains.

HSS (Co<1% Ni<1%)

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6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Mechanically recover the product. 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. Dust formation: dust mask. Avoid contact with skin. Use insulated gloves when handling this material hot.
Hygiene measures : Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep away from: Acids. Oxidizing agents and reducing agents.

7.3. Specific end use(s)

For use in industrial installations only.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

Chromium (7440-47-3)	
EU - Indicative Occupational Exposure Limit (IOEL)	
IOEL TWA	2 mg/m ³
Remark	(Chromium, anorg. CrII and CrIII compounds, insoluble)
United Kingdom - Occupational Exposure Limits	
WEL TWA (OEL TWA) [1]	0.5 mg/m ³
Remark	(ChromiumII and ChromiumIII compounds, as Cr)
USA - ACGIH - Occupational Exposure Limits	
ACGIH OEL TWA	0.5 mg/m ³
Cobalt (7440-48-4)	
United Kingdom - Occupational Exposure Limits	
WEL TWA (OEL TWA) [1]	0.1 mg/m ³
USA - ACGIH - Occupational Exposure Limits	
ACGIH OEL TWA	0.02 mg/m ³
Nickel (7440-02-0)	
United Kingdom - Occupational Exposure Limits	
WEL TWA (OEL TWA) [1]	0.5 mg/m ³
USA - ACGIH - Occupational Exposure Limits	
ACGIH OEL TWA	0.2 mg/m ³ (inhalable) 0.1 mg/m ³ (soluble) 1.5 mg/m ³ (inhalable fraction)

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Safety Data Sheet

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8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

Cobalt (7440-48-4)	
DNEL/DMEL (Workers)	
Long-term - local effects, inhalation	40 µg/m ³
PNEC (Water)	
PNEC aqua (freshwater)	0.6 µg/L
PNEC aqua (marine water)	2.36 µg/L
PNEC (Sediment)	
PNEC sediment (freshwater)	11.2 mg/kg dwt
PNEC sediment (marine water)	9.5 mg/kg dwt
PNEC (Soil)	
PNEC soil	10.9 mg/kg dwt
PNEC (Oral)	
PNEC oral (secondary poisoning)	1 mg/kg
PNEC (STP)	
PNEC sewage treatment plant	0.37 mg/l

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Technical measures and the application of suitable work processes have priority over personal protection equipment. In the event that dust and/or fine particles are generated with this product, it is prudent to minimize prolonged inhalation exposure to these forms not to exceed the occupational exposure limit. Provide adequate ventilation to minimize dust concentrations.

8.2.2. Personal protection equipment

Personal protective equipment:

Dust production: dust mask with filter type P3. Gloves. Safety glasses. Protective clothing.

Personal protective equipment symbol(s):



8.2.2.1. Eye and face protection

Eye protection:

EN-norms: EN 166

8.2.2.2. Skin protection

Skin and body protection:

EN-norms: EN 13982

Hand protection:

EN-norms: EN 374

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Safety Data Sheet

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8.2.2.3. Respiratory protection

Respiratory protection:

Filtering Half-face mask (EN 149)

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

No additional information available

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Colour	: Steel.
Appearance	: Massive alloy.
Odour	: odourless.
Odour threshold	: Not applicable
Melting point	: 1300 – 1500 °C
Freezing point	: Not available
Boiling point	: Not applicable
Flammability	: Not flammable
Explosive properties	: not explosive.
Oxidising properties	: Not oxidizing.
Explosive limits	: Not applicable
Lower explosion limit	: Not applicable
Upper explosion limit	: Not applicable
Flash point	: Not applicable
Auto-ignition temperature	: Not self-igniting
Decomposition temperature	: Not applicable
pH	: Not applicable
pH solution	: Not available
Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: Not applicable
Solubility	: Not available
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not applicable
Vapour pressure at 50°C	: Not available
Density	: Not available
Relative density	: 7.8 – 8.2
Relative vapour density at 20°C	: Not applicable
Particle size	: Not available

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

Relative evaporation rate (butylacetate=1) : Not applicable

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

The product is stable at normal handling and storage conditions.

HSS (Co<1% Ni<1%)

Safety Data Sheet

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10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

Avoid generation of dust. Prevent dust accumulation.

10.5. Incompatible materials

Acids. Oxidizing agents and reducing agents.

10.6. Hazardous decomposition products

Metal oxides.

SECTION 11: Toxicological information

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

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified
Skin corrosion/irritation	: Not classified
	pH: Not applicable
Serious eye damage/irritation	: Not classified
	pH: Not applicable
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: May cause cancer by inhalation.

Cobalt (7440-48-4)

IARC group	2B - Possibly carcinogenic to humans
Reproductive toxicity	: May damage fertility.
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified

Nickel (7440-02-0)

STOT-repeated exposure	Causes damage to organs through prolonged or repeated exposure.
Aspiration hazard	: Not classified

HSS (Co<1% Ni<1%)

Viscosity, kinematic	Not applicable
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11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

No additional information available

11.2.2. Other information

Other information : There are no data available on the mixture itself.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: There are no data available on the mixture itself.
Ecology - water	: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
Hazardous to the aquatic environment, short-term (acute)	: Not classified

HSS (Co<1% Ni<1%)

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

Hazardous to the aquatic environment, long-term (chronic) : Not classified

12.2. Persistence and degradability

HSS (Co<1% Ni<1%)

Persistence and degradability	Not applicable to inorganic substances.
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12.3. Bioaccumulative potential

HSS (Co<1% Ni<1%)

Bioaccumulative potential	No additional information available.
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12.4. Mobility in soil

HSS (Co<1% Ni<1%)

Ecology - soil	No additional information available.
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12.5. Results of PBT and vPvB assessment

HSS (Co<1% Ni<1%)

Results of PBT assessment	Not applicable to inorganic substances.
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12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods	: Material recycling possible. Collection and re-processing of shavings, chips, offcuts, etc.
Ecology - waste materials	: Do not dispose of waste into sewer. Dispose according to legislation.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

14.1. UN number or ID number

UN-No. (ADR)	: Not applicable
UN-No. (IMDG)	: Not applicable
UN-No. (IATA)	: Not applicable
UN-No. (ADN)	: Not applicable
UN-No. (RID)	: Not applicable

14.2. UN proper shipping name

Proper Shipping Name (ADR)	: Not applicable
Proper Shipping Name (IMDG)	: Not applicable
Proper Shipping Name (IATA)	: Not applicable
Proper Shipping Name (ADN)	: Not applicable
Proper Shipping Name (RID)	: Not applicable

HSS (Co<1% Ni<1%)

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR) : Not applicable

IMDG

Transport hazard class(es) (IMDG) : Not applicable

IATA

Transport hazard class(es) (IATA) : Not applicable

ADN

Transport hazard class(es) (ADN) : Not applicable

RID

Transport hazard class(es) (RID) : Not applicable

14.4. Packing group

Packing group (ADR) : Not applicable

Packing group (IMDG) : Not applicable

Packing group (IATA) : Not applicable

Packing group (ADN) : Not applicable

Packing group (RID) : Not applicable

14.5. Environmental hazards

Dangerous for the environment : No

Marine pollutant : No

Other information : No supplementary information available

14.6. Special precautions for user

Overland transport

No data available

Transport by sea

No data available

Air transport

No data available

Inland waterway transport

No data available

Rail transport

No data available

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

REACH Annex XVII (Restriction List)

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

HSS (Co<1% Ni<1%)

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

For this mixture a chemical safety assessment has not been carried out.

SECTION 16: Other information

Indication of changes:

Modifications are indicated by an asterisk (*).

Abbreviations and acronyms:	
ACGIH	American Conference of Governmental Industrial Hygienists
CAS	Chemical Abstract Service
DNEL	Derived No Effect Level
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
PBT	Persistent, Bioaccumulative and Toxic
PEL	Permissible Exposure Limits
PNEC	Predicted No Effect Concentration
REACH	Registration, Evaluation, Authorisation of Chemicals
REL	Recommended Exposure Limits
STP	Sewage Treatment Plant
TSCA	
TWA	Time Weighted Average
vPvB	very Persistent and very Bioaccumulative
WEL (UK)	

HSS (Co<1% Ni<1%)

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

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 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.

Full text of H- and EUH-statements:

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
EUH208	Contains Cobalt(7440-48-4), Nickel(7440-02-0). May produce an allergic reaction.
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.
H360F	May damage fertility.
H372	Causes damage to organs through prolonged or repeated exposure.
H413	May cause long lasting harmful effects to aquatic life.
Repr. 1A	Reproductive toxicity, Category 1A
Repr. 1B	Reproductive toxicity, Category 1B
Resp. Sens. 1	Respiratory sensitisation, Category 1
Skin Sens. 1	Skin sensitisation, Category 1
STOT RE 1	Specific target organ toxicity – Repeated exposure, Category 1