AMACAST

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Date of issue: 20/04/2016 Revision date: 07/09/2018 Supersedes: 20/04/2016 Version: 5.0

SDS No: 12493-0001

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

1.1. Product identifier

Product form : Mixture

Product name : AMACAST

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 : Stainless steel shot blasting agent

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Supplier

Ervin Germany GmbH
Headquarters Europe
Rudower Chaussee 48
D - 12489 Berlin - Germany
T +49 30/67 80 49 4-0 - F 49 30/67 80 49 4-29
http://www.ervin.eu

Informing department

Quality Assurance Department
(Mo-Do: 8:00 - 16:00, Fr: 08:00 - 13:00)

1.4. Emergency telephone number

Emergency number : +49 30/67 80 49 4-0

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Skin sensitisation Not classified		Refer to section 11
Carcinogenicity, Category 2	H351	
Specific target organ toxicity — Repeated exposure, Category 2	H373	

Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects

To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safety practice.

2.2. Label elements

According to Regulation (EC) No 1272/2008 Annex I section 1.3.4 [Metals in massive form, alloys, mixtures containing polymers, mixtures containing elastomers] this product is not subject to labelling.

2.3. Other hazards

PBT : Not applicable.

vPvB : Not applicable.

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 Substance with a Community workplace exposure limit substance with national workplace exposure limit(s) (GB)	(CAS-No.) 7440-47-3 (EC-No.) 231-157-5	<20	Not classified
Nickel (Note S)(Note 7)	(CAS-No.) 7440-02-0 (EC-No.) 231-111-4 (EC Index-No.) 028-002-00-7	<10	Carc. 2, H351 STOT RE 1, H372 Skin Sens. 1, H317
Silicon (Si) substance with national workplace exposure limit(s) (GB)	(CAS-No.) 7440-21-3 (EC-No.) 231-130-8	<3	Not classified

Manganese Substance with a Community workplace exposure limit substance with national workplace exposure limit(s) (GB)	(CAS-No.) 7439-96-5 (EC-No.) 231-105-1	<2	Not classified

Note 7 : Alloys containing nickel are classified for skin sensitisation when the release rate of 0,5 µg Ni/cm2/week, as measured by the European Standard reference test method EN 1811, is exceeded.

Note S : This substance may not require a label according to Article 17 (see section 1.3 of Annex I) (Table 3.1). This substance may not require a label according to Article 23 of Directive 67/548/EEC (see section 8 of Annex VI to that Directive) (Table 3.2).

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.

First-aid measures after skin contact : Wash skin with plenty of water. Get medical advice if skin irritation persists.

First-aid measures after eye contact : Rinse thoroughly and plentifully with water, also under the eyelids. Consult an ophtalmologist if irritation persists.

First-aid measures after ingestion : Rinse mouth. Drink plenty of water. Call a poison center or a doctor if you feel unwell.

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

No additional information available

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Dry powder. Sand. Carbon dioxide.

Unsuitable extinguishing media : Strong water jet.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Advice for firefighters

Firefighting instructions : Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Avoid dust formation. Forms slippery surfaces with water. Respirator must be worn if exposed to dust.

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Mechanically recover the product.

Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

Refer to protective measures listed in Sections 7 and 8. For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : No special precautions required.

Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : No special requirements.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Chromium (7440-47-3)		
EU	Local name	Chromium metal
EU	IOELV TWA (mg/m³)	2 mg/m³
EU	Notes	(Chromium, anorg. CrII and CrIII compounds, unsoluble)
EU	Regulatory reference	COMMISSION DIRECTIVE 2006/15/EC
United Kingdom	Local name	Chromium
United Kingdom	WEL TWA (mg/m³)	0.5 mg/m³ 0.5 mg/m³ Chromium (II) compounds (as Cr) 0.5 mg/m³ Chromium (III) compounds (as Cr)
United Kingdom	WEL STEL (mg/m³)	1.5 mg/m³ (calculated)
United Kingdom	Regulatory reference	EH40/2005 (Third edition, 2018). HSE

Nickel (7440-02-0)		
EU	Local name	Nickel metal
EU	IOELV TWA (mg/m³)	0.005 mg/m³ (respirable fraction) 0.01 mg/m³ (inhalable fraction)
EU	Notes	(Year of adoption 2011)
EU	Regulatory reference	SCOEL Recommendations
United Kingdom	Local name	Nickel
United Kingdom	WEL TWA (mg/m³)	0.1 mg/m³ and its inorganic compounds (except nickel tetracarbonyl): water-soluble nickel compounds (as Ni) 0.5 mg/m³ and its inorganic compounds (except nickel tetracarbonyl): nickel and water insoluble nickel compounds (as Ni)
United Kingdom	WEL STEL (mg/m³)	1.5 mg/m³ (calculated)
United Kingdom	Remark (WEL)	Sk (Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity), Carc (Capable of causing cancer and/or heritable genetic damage (nickel oxides and sulphides)), Sen (Capable of causing occupational asthma (nickel sulphate))
United Kingdom	Regulatory reference	EH40/2005 (Third edition, 2018). HSE

Silicon (Si) (7440-21-3)		
United Kingdom	Local name	Silicon
United Kingdom	WEL TWA (mg/m³)	10 mg/m³ inhalable dust 4 mg/m³ respirable dust
United Kingdom	Regulatory reference	EH40/2005 (Third edition, 2018). HSE

Manganese (7439-96-5)		
EU	Local name	Manganese
EU	IOELV TWA (mg/m³)	0.2 mg/m³ (inhalable fraction) 0.05 mg/m³ (respirable fraction)
EU	Notes	(Year of adoption 2011)
EU	Regulatory reference	SCOEL Recommendations
United Kingdom	WEL STEL (mg/m³)	1.5 mg/m³ (calculated)

8.2. Exposure controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

Hand protection:

Please follow the instructions related to the permeability and the penetration time provided by the manufacturer. Select the appropriate glove material adhering to the breakthrough time, permeation rate and the degradation. The exact break through time has to be found out by the manufacturer of the protective gloves

Type	Material	Permeation	Thickness (mm)	Penetration	Standard
protective gloves	leather				EN 374-3

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

Filter type. P2

Personal protective equipment symbol(s):

Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Colour	: dark grey
Odour	: odourless
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: 1371 - 1483 °C
Freezing point	: Not applicable
Boiling point	: 2850 - 3150 °C
Flash point	: Not applicable
Auto-ignition temperature	: Not self-igniting
Decomposition temperature	: No data available
Flammability (solid, gas)	: Non flammable.
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: > 7.6 g/cm³
Solubility	: insoluble in water.
Log Pow	: No data available
Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: No data available
Explosive properties	: Product is not explosive.
Oxidising properties	: No data available
Explosive limits	: Not applicable

9.2. Other information

VOC content	: 0 %
Solid content	: 100%

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

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

Manganese (7439-96-5)	
LD50 oral rat	9 g/kg

Skin corrosion/irritation : Not classified
Serious eye damage/irritation : Not classified
Respiratory or skin sensitisation : Not classified
Additional information : Prüfung Nickel release control pursuant to DIN EN 1811:2012-10, sample number 2016-00916, < 0,1 µg per cm2 and week
Germ cell mutagenicity : Not classified
Carcinogenicity : Suspected of causing cancer.

Chromium (7440-47-3)	
IARC group	3 - Not classifiable

Nickel (7440-02-0)	
IARC group	2B - Possibly carcinogenic to humans

Reproductive toxicity : Not classified
STOT-single exposure : Not classified
STOT-repeated exposure : May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard : Not classified

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
Acute aquatic toxicity : Not classified
Chronic aquatic toxicity : Not classified

Nickel (7440-02-0)	
LC50 fish 2	1.3 mg/l (Exposure time: 96 h - Species: Cyprinus carpio [semi-static])
EC50 Daphnia 1	> 100 mg/l (Exposure time: 48 h - Species: Daphnia magna)
EC50 Daphnia 2	1 mg/l (Exposure time: 48 h - Species: Daphnia magna [static])
EC50 72h algae (1)	0.18 mg/l (Pseudokirchneriella subcapitata)

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

Additional information : Do not release undiluted or in higher quantities into the groundwater, sewerage or waters

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

European List of Waste (LoW) code : 12 01 16* - waste blasting material containing dangerous substances

SECTION 14: Transport information

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

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.2. UN proper shipping name				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.3. Transport hazard class(es)				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.4. Packing group				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.5. Environmental hazards				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
No supplementary information available				

14.6. Special precautions for user

Overland transport

Not applicable

Transport by sea

Not applicable

Air transport

Not applicable

Inland waterway transport

Not applicable

Rail transport

Not applicable

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

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

Contains no REACH substances with Annex XVII restrictions
Contains no substance on the REACH candidate list
Contains no REACH Annex XIV substances

VOC content : 0 %

Directive 2012/18/EU (SEVESO III)

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Indication of changes:
All chapters have been modified since the previous version.

Abbreviations and acronyms:	
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
DOT	Department of Transport
TDG	Transportation of Dangerous Goods
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
GHS	Globally Harmonized System of Classification, Labelling and Packaging of Chemicals
IARC	International Agency for Research on Cancer
vPvB	Very Persistent and Very Bioaccumulative
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
CAS	CAS (Chemical Abstracts Service) number
IBC-Code	International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
ATE	Acute Toxicity Estimate
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
BCF	Bioconcentration factor
MARPOL 73/78	MARPOL 73/78: International Convention for the Prevention of Pollution From Ships
ADG	Transport of Australian Dangerous Goods

Other information : Data of sections 4 to 8, as well as 10 to 12, do partly not refer to the use and the regular employing of the product (in this sense consult information on use and on product), but to liberation of major amounts in case of accidents and irregularities. The information describes exclusively the safety requirements for the product(s) and is based on the present level of our knowledge. The delivery specifications are contained in the corresponding product sheet. This data does not constitute a guarantee for the characteristics of the product(s) as defined by the legal warranty regulations.

Full text of H- and EUH-statements:	
Carc. 2	Carcinogenicity, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
Skin Sens. Not classified	Skin sensitisation Not classified
STOT RE 1	Specific target organ toxicity — Repeated exposure, Category 1
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2
H317	May cause an allergic skin reaction.
H351	Suspected of causing cancer.
H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure.

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:		
Skin Sens. Not classified		Calculation method
Carc. 2	H351	Calculation method

STOT RE 2	H373	Calculation method

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