

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



STANDART CHROMAL X Aluminium Powder

Version	Revision Date:	SDS Number:	Print Date: 20.01.2024
2.1	19.01.2024	102000033491	Date of first issue: 24.08.2020

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

1.1 Product identifier

Trade name : STANDART CHROMAL X Aluminium Powder
Product code : 049110E30

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

Use of the Substance/Mixture : Colouring agents, pigments

1.3 Details of the supplier of the safety data sheet

Company : ECKART GmbH
Guntersthal 4
91235 Hartenstein
Telephone : +499152770
Telefax : +499152777008
E-mail address of person responsible for the SDS : msds.eckart@altana.com

1.4 Emergency telephone number

NCEC: +44 1235 239670 (Europe)
Call and response in your language is possible.
Contract no.: ECKART29003-NCEC.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Flammable solids, Category 1 H228: Flammable solid.

Information concerning particular hazards for human and environment:

Please refer to our website for further important safety instructions for handling aluminium powder:
http://www.eckart.net/fileadmin/eckart/Service/GDA_Alupulver_Safety_engl.pdf

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



STANDART CHROMAL X Aluminium Powder

Version 2.1 Revision Date: 19.01.2024 SDS Number: 102000033491 Print Date: 20.01.2024
Date of first issue: 24.08.2020

Hazard pictograms	:	
Signal word	:	Danger
Hazard statements	:	H228 Flammable solid.
Precautionary statements	:	Prevention: P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P240 Ground and bond container and receiving equipment. P241 Use explosion-proof electrical/ ventilating/ lighting equipment. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection. Response: P370 + P378 In case of fire: Use for extinction: Special powder for metal fires. P370 + P378 In case of fire: Use for extinction: Dry sand.

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Components

Chemical name	CAS-No. EC-No. Index-No. Registration number	ClassificationREGULATION (EC) No 1272/2008	Concentration (% w/w)
aluminium powder (stabilised)	7429-90-5 231-072-3 013-002-00-1 01-2119529243-45	Flam. Sol. 1; H228	>= 50 - <= 100

For explanation of abbreviations see section 16.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



STANDART CHROMAL X Aluminium Powder

Version 2.1 Revision Date: 19.01.2024 SDS Number: 102000033491 Print Date: 20.01.2024
Date of first issue: 24.08.2020

SECTION 4: First aid measures

4.1 Description of first aid measures

- General advice : Move out of dangerous area.
Move the victim to fresh air.
- If inhaled : If unconscious, place in recovery position and seek medical advice.
If symptoms persist, call a physician.
- In case of skin contact : If on skin, rinse well with water.
If on clothes, remove clothes.
Wash off immediately with soap and plenty of water.
- In case of eye contact : Flush eyes with water as a precaution.
Remove contact lenses.
Keep eye wide open while rinsing.
- If swallowed : Keep respiratory tract clear.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.

4.2 Most important symptoms and effects, both acute and delayed

None known.

4.3 Indication of any immediate medical attention and special treatment needed

SECTION 5: Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media : Dry sand
Special powder against metal fire
- Unsuitable extinguishing media : ABC powder
Carbon dioxide (CO₂)
Water
Foam

5.2 Special hazards arising from the substance or mixture

- Specific hazards during firefighting : Contact with water liberates extremely flammable gas (hydrogen).

5.3 Advice for firefighters

- Special protective equipment : Wear self-contained breathing apparatus for firefighting if
-

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



STANDART CHROMAL X Aluminium Powder

Version	Revision Date:	SDS Number:	Print Date: 20.01.2024
2.1	19.01.2024	102000033491	Date of first issue: 24.08.2020

for firefighters necessary.

Further information : Standard procedure for chemical fires.
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Avoid dust formation.
Remove all sources of ignition.
Use personal protective equipment.
Evacuate personnel to safe areas.

6.2 Environmental precautions

General advice : Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so.
If the product contaminates rivers and lakes or drains inform respective authorities.
The product should not be allowed to enter drains, water courses or the soil.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Do not flush with water.
Keep in suitable, closed containers for disposal.

Use mechanical handling equipment.
Do not use a vacuum cleaner.

6.4 Reference to other sections

For personal protection see section 8.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.
Dispose of rinse water in accordance with local and national regulations.
Avoid creating dust.
Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces.
Store away from heat.

Advice on protection against fire and explosion : Keep away from open flames, hot surfaces and sources of ignition.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



STANDART CHROMAL X Aluminium Powder

Version 2.1 Revision Date: 19.01.2024 SDS Number: 102000033491 Print Date: 20.01.2024
Date of first issue: 24.08.2020

Use explosion-proof equipment. During processing, dust may form explosive mixture in air. Take measures to prevent the build up of electrostatic charge. When transferring from one container to another apply earthing measures and use conductive hose material.

Hygiene measures : Wash hands before breaks and at the end of workday.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : No smoking. Keep container tightly closed in a dry and well-ventilated place. Electrical installations / working materials must comply with the technological safety standards.

Earthing of containers and apparatuses is essential. Reaction with water liberates extremely flammable gas (hydrogen) Use explosion-proof equipment. Store in original container. Keep containers tightly closed in a cool, well-ventilated place. Keep away from sources of ignition - No smoking. Keep container closed when not in use.

Further information on storage conditions : Protect from humidity and water.

Advice on common storage : Do not store together with oxidizing and self-igniting products. Never allow product to get in contact with water during storage.
Keep away from oxidizing agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions.

Further information on storage stability : Keep in a dry place.
No decomposition if stored and applied as directed.

7.3 Specific end use(s)

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
aluminium powder (stabilised)	7429-90-5	TWA (Inhalable)	10 mg/m ³	GB EH40
		TWA (Respirable fraction)	4 mg/m ³	GB EH40
		TWA (inhalable dust)	10 mg/m ³	GB EH40
Further information: For the purposes of these limits, respirable dust and inhalable dust are those fractions of airborne dust which will be collected when sampling is undertaken in accordance with the methods described in				

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



STANDART CHROMAL X Aluminium Powder

Version 2.1 Revision Date: 19.01.2024 SDS Number: 102000033491 Print Date: 20.01.2024
 Date of first issue: 24.08.2020

	<p>MDHS14/4 General methods for sampling and gravimetric analysis or respirable, thoracic and inhalable aerosols., The COSHH definition of a substance hazardous to health includes dust of any kind when present at a concentration in air equal to or greater than 10 mg.m-3 8-hour TWA of inhalable dust or 4 mg.m-3 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed to dust above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limits., Most industrial dusts contain particles of a wide range of sizes. The behaviour, deposition and fate of any particular particle after entry into the human respiratory system, and the body response that it elicits, depend on the nature and size of the particle. HSE distinguishes two size fractions for limit-setting purposes termed 'inhalable' and 'respirable'. Inhalable dust approximates to the fraction of airborne material that enters the nose and mouth during breathing and is therefore available for deposition in the respiratory tract. Respirable dust approximates to the fraction that penetrates to the gas exchange region of the lung. Fuller definitions and explanatory material are given in MDHS14/4., Where dusts contain components that have their own assigned WEL, all the relevant limits should be complied with., Where no specific short-term exposure limit is listed, a figure three times the long-term exposure limit should be used.</p>				
	<table border="1"> <tr> <td data-bbox="491 1025 671 1093"></td> <td data-bbox="671 1025 911 1093">TWA (Respirable dust)</td> <td data-bbox="911 1025 1251 1093">4 mg/m3</td> <td data-bbox="1251 1025 1450 1093">GB EH40</td> </tr> </table>		TWA (Respirable dust)	4 mg/m3	GB EH40
	TWA (Respirable dust)	4 mg/m3	GB EH40		
	<p>Further information: For the purposes of these limits, respirable dust and inhalable dust are those fractions of airborne dust which will be collected when sampling is undertaken in accordance with the methods described in MDHS14/4 General methods for sampling and gravimetric analysis or respirable, thoracic and inhalable aerosols., The COSHH definition of a substance hazardous to health includes dust of any kind when present at a concentration in air equal to or greater than 10 mg.m-3 8-hour TWA of inhalable dust or 4 mg.m-3 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed to dust above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limits., Most industrial dusts contain particles of a wide range of sizes. The behaviour, deposition and fate of any particular particle after entry into the human respiratory system, and the body response that it elicits, depend on the nature and size of the particle. HSE distinguishes two size fractions for limit-setting purposes termed 'inhalable' and 'respirable'. Inhalable dust approximates to the fraction of airborne material that enters the nose and mouth during breathing and is therefore available for deposition in the respiratory tract. Respirable dust approximates to the fraction that penetrates to the gas exchange region of the lung. Fuller definitions and explanatory material are given in MDHS14/4., Where dusts contain components that have their own assigned WEL, all the relevant limits should be complied with., Where no specific short-term exposure limit is listed, a figure three times the long-term exposure limit should be used.</p>				

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Substance name	End Use	Exposure routes	Potential health effects	Value
aluminium powder (stabilised)	Workers	Inhalation	Long-term systemic effects	3.72 mg/m3
	Workers	Inhalation	Long-term local	3.72 mg/m3

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



STANDART CHROMAL X Aluminium Powder

Version 2.1 Revision Date: 19.01.2024 SDS Number: 102000033491 Print Date: 20.01.2024
Date of first issue: 24.08.2020

			effects	
	Consumers	Oral	Long-term systemic effects	3.95 mg/kg

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Substance name	Environmental Compartment	Value
aluminium powder (stabilised)	Fresh water	0.0749 mg/l
	clarification plant	20 mg/l

8.2 Exposure controls

Personal protective equipment

- Eye/face protection : Safety glasses
Face-shield
- Hand protection
- Material : Leather
Glove length : Long sleeve gloves
- Remarks : The suitability for a specific workplace should be discussed with the producers of the protective gloves.
Leather gloves The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other.
- Skin and body protection : Dust impervious protective suit
Choose body protection according to the amount and concentration of the dangerous substance at the work place.
Anti-static and fire resistant protective clothing. DIN EN 11612; EN 533; EN 1149-1. Anti-static safety shoes.
- Respiratory protection : Use suitable breathing protection if workplace concentration requires.
Breathing apparatus with filter.
P1 filter

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

- Form : powder
- Colour : silver
- Odour : characteristic
- Odour Threshold : No data available
- Melting point/range : > 600 °C
- Boiling point/boiling range : No data available
- Flammability : The substance or mixture is a flammable solid with the

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



STANDART CHROMAL X Aluminium Powder

Version 2.1 Revision Date: 19.01.2024 SDS Number: 102000033491 Print Date: 20.01.2024
Date of first issue: 24.08.2020

category 1.

Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Flash point	:	No data available
Auto-ignition temperature	:	340 °C
Decomposition temperature	:	No data available
pH	:	substance/mixture is non-soluble (in water)
Viscosity, kinematic	:	No data available
Solubility(ies)		
Water solubility	:	insoluble
Solubility in other solvents	:	No data available
Partition coefficient: n-octanol/water	:	No data available
Vapour pressure	:	No data available
Relative density	:	No data available
Density	:	2.5 g/cm ³
Relative vapour density	:	No data available
Particle characteristics		
Particle Size Distribution	:	No data available

9.2 Other information

No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

No decomposition if stored and applied as directed.

10.2 Chemical stability

No decomposition if stored and applied as directed.

10.3 Possibility of hazardous reactions

Hazardous reactions : Stable under recommended storage conditions.

Contact with acids and alkalis may release hydrogen.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



STANDART CHROMAL X Aluminium Powder

Version	Revision Date:	SDS Number:	Print Date: 20.01.2024
2.1	19.01.2024	102000033491	Date of first issue: 24.08.2020

Dust may form explosive mixture in air.

10.4 Conditions to avoid

Conditions to avoid : Heat, flames and sparks.

10.5 Incompatible materials

Materials to avoid : Acids
Bases
Oxidizing agents
Water

10.6 Hazardous decomposition products

This information is not available.

SECTION 11: Toxicological information

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

Acute toxicity

Not classified based on available information.

Components:

aluminium powder (stabilised):

Acute inhalation toxicity : LC50 (Rat): > 5 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist

Skin corrosion/irritation

Not classified based on available information.

Serious eye damage/eye irritation

Not classified based on available information.

Respiratory or skin sensitisation

Skin sensitisation

Not classified based on available information.

Respiratory sensitisation

Not classified based on available information.

Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

Not classified based on available information.

Reproductive toxicity

Not classified based on available information.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



STANDART CHROMAL X Aluminium Powder

Version 2.1 Revision Date: 19.01.2024 SDS Number: 102000033491 Print Date: 20.01.2024
Date of first issue: 24.08.2020

STOT - single exposure

Not classified based on available information.

STOT - repeated exposure

Not classified based on available information.

Aspiration toxicity

Not classified based on available information.

11.2 Information on other hazards

Further information

Product:

Remarks : No data available

SECTION 12: Ecological information

12.1 Toxicity

No data available

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

Product:

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Endocrine disrupting properties

No data available

12.7 Other adverse effects

Product:

Additional ecological information : No data available

SECTION 13: Disposal considerations

European Waste Catalogue : 12 01 04 - non-ferrous metal dust and particles
European Waste Catalogue : 10 03 21 - other particulates and dust (including ball-mill dust)

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



STANDART CHROMAL X Aluminium Powder

Version 2.1 Revision Date: 19.01.2024 SDS Number: 102000033491 Print Date: 20.01.2024
Date of first issue: 24.08.2020

containing hazardous substances

13.1 Waste treatment methods

Product : Do not dispose of waste into sewer.
Do not contaminate ponds, waterways or ditches with chemical or used container.
Send to a licensed waste management company.
In accordance with local and national regulations.

Contaminated packaging : Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.
Do not burn, or use a cutting torch on, the empty drum.
In accordance with local and national regulations.

SECTION 14: Transport information

14.1 UN number or ID number

ADR : UN 1309
IMDG : UN 1309
IATA : UN 1309

14.2 UN proper shipping name

ADR : ALUMINIUM POWDER, COATED
IMDG : ALUMINIUM POWDER, COATED
IATA : Aluminium powder, coated

14.3 Transport hazard class(es)

	Class	Subsidiary risks
ADR	: 4.1	
IMDG	: 4.1	
IATA	: 4.1	

14.4 Packing group

ADR
Packing group : II
Classification Code : F3
Hazard Identification Number : 40
Labels : 4.1
Tunnel restriction code : (E)

IMDG
Packing group : II
Labels : 4.1
EmS Code : F-G, S-G

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



STANDART CHROMAL X Aluminium Powder

Version 2.1 Revision Date: 19.01.2024 SDS Number: 102000033491 Print Date: 20.01.2024
Date of first issue: 24.08.2020

Remarks : IMDG Code segregation group 15 - Powdered metals

IATA (Cargo)

Packing instruction (cargo aircraft) : 448
Packing instruction (LQ) : Y441
Packing group : II
Labels : 4.1

IATA (Passenger)

Packing instruction (passenger aircraft) : 445
Packing instruction (LQ) : Y441
Packing group : II
Labels : 4.1

14.5 Environmental hazards

ADR

Environmentally hazardous : no

IMDG

Marine pollutant : no

14.6 Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

SECTION 15: Regulatory information

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

Relevant EU provisions transposed through retained EU law

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII) : Conditions of restriction for the following entries should be considered:
Number on list 40
aluminium powder (stabilised)
(Number on list 40)

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer : Not applicable

UK REACH List of substances subject to authorisation (Annex XIV) : Not applicable

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



STANDART CHROMAL X Aluminium Powder

Version	Revision Date:	SDS Number:	Print Date: 20.01.2024
2.1	19.01.2024	102000033491	Date of first issue: 24.08.2020

15.2 Chemical safety assessment

No data available

SECTION 16: Other information

Full text of H-Statements

H228 : Flammable solid.

Full text of other abbreviations

Flam. Sol. : Flammable solids
GB EH40 : UK. EH40 WEL - Workplace Exposure Limits
GB EH40 / TWA : Long-term exposure limit (8-hour TWA reference period)

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TECl - Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Further information

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



STANDART CHROMAL X Aluminium Powder

Version	Revision Date:	SDS Number:	Print Date: 20.01.2024
2.1	19.01.2024	102000033491	Date of first issue: 24.08.2020

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

GB / EN