

Safety Data Sheet

Aluminium profiles

Apply for alloys Sapa EN AW 6060, 6063, 6005, 6005A, 6082, yellow chromated, with or without powder coating.

Documentno: 1377

Publised:2010-06-15

Replace: 2009-02-02

1. Identification of the Substance/Preparation and Company

Product name: Aluminium profiles (Alloys, Sapa EN AW 6060, 6063, 6005, 6005A, 6082) Yellow chromated with or without powder coating.
Supplier: Sapa Profiler AB, 574 81 Vetlanda, Sweden
Phone no.: +46 (0)383-941 00
Emergency phone no.: -

2. Hazards Identification

Aluminium and aluminium alloys in the form they are supplied are not hazardous to man or the environment.

Dust and fumes may be generated during processing like welding, grinding or cutting. The composition of these will be the same as for the product, except for welding where composition will also depend on welding method and wire.

The addition of wet materials to molten metal may cause explosions (see section 10).

3. Composition/Information on Ingredients

Hazardous component	EG-no	CAS nr	Symbol (see section16)	Risk Phrases (see section16)	Weight%
Chromium trioxide (CrO ₃)	215-607-8	1333-82-0	O,T,C,N; Canc 1	R49-8-25-35-43-50/53	<0,05 *

Element	EG-no	CAS no	Symbol	Risk Phrases	Weight%
Aluminium (Al)	231-072-3	7429-90-5	none	none	>97
Silicon (Si)	231-130-8	7440-21-3	none	none	<1,40
Iron (Fe)	231-096-4	7439-89-6	none	none	<0,50
Magnesium (Mg)	231-104-6	7439-95-4	none	none	<1,20
Copper(Cu)	231-159-6	7440-50-8	none	none	<0,35
Manganese(Mn)	231-105-1	7439-96-5	none	none	<1
Titanium (Ti)	231-142-3	7440-32-6	none	none	<0,10
Zinc (Zn)	231-175-3	7440-66-6	none	none	<0,20

Comment: The elements in the powder coating can vary. Since there are no obligations to present data on the elements in the powder coating, they are not mentioned.

Trace elements:

Ni, B, Sn, Na, Ca, Li, Sr, P, Pb, Be, Sb, V, Bi, Cr
Cd

Weight%

<0,05
<0,01

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* See section 16

4. First Aid Measures

Inhalation:	Not relevant during normal use. Irritation caused by dust, find fresh air.
Skin contact:	Not relevant during normal use. Wash skin water and/or a mild detergent.
Eye contact:	Not relevant during normal use. Rinse eyes from dust and chip with water/saline solution. See a Physician on persistent feeling of discomfort.
Ingestion:	Not relevant during normal use. Irritation caused by dust: fresh air.

5. Fire Fighting Measures

The metal is not a fire hazard except in finely divided form. Fine particles may be produced from grinding, sawing or dry polishing actions.

Extinguish fire with dry powder or dry sand. Do not use water or halogen.

6. Accidental Release Measures

Avoid handling that generates dust build-up. Material in the form of dust should be collected in suitable containers. Dust can be vacuumed or swept up.

7. Handling and Storage

Handling:	Avoid handling that generates dust build-up. Avoid ignition sources (e.g. welding) in areas with high dust concentrations. Use local exhaust and good ventilation at grinding, sawing and polishing actions.
Storage:	Keep product dry.

8. Exposure Controls/Personal Protection

During normal handling of solid aluminium none of the exposure limits for the other elements present will be exceeded.

At sawing, grinding or polishing operations wear eye protection, protective gloves and wear a particulate respirator according to norm EN 149:2001, class FFP2, there should be available eye flushing facilities.

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Use local exhaust at sawing, grinding or welding actions of yellow chromated and powder coated material.

	Occupational exposure limits ppm	Level limit value (LLV) mg/m ³
Chromates Cr (Cr⁶⁺):		
Total dust:	-	0,02
Chromium Cr (incl Cr³⁺):		
Total dust:	-	0,5
Aluminium		
Total dust:	-	5
Respirable dust:	-	2
Copper		
Total dust:	-	1
Respirable dust:	-	0,2

9. Physical and Chemical Protection

Density Kg/m³:	2600-2900
Melting range °C:	450-660
Colour:	Silvery.
Form:	Solid.

10. Stability and Reactivity

Aluminium alloys are stable under normal conditions of use, storage and transport. Molten aluminium may react violently with water, rust, certain metal oxides and nitrates.

Conditions to avoid: Avoid generating sparks and other ignition sources (e.g. welding) in areas with high dust concentrations. Particles of the product suspended in air may readily propagate flame, generate considerable pressure and/or explode. Both ignition sensitivity and the violence of explosion increase with decreasing particle size.

Materials to avoid: Acids, bases, oxidising agents, halogenated hydrocarbons and metal oxides (see below).

Hazardous decomposition products: A reaction with acids and bases leads to the formation of flammable hydrogen gas (H₂). Aluminium metal may react violently with oxidising agents, halogenated hydrocarbons and metal oxides, with much heat generation.

Wet product will form flammable hydrogen gas if added to molten aluminium, due to decomposition of water.

Treatment of powder coated goods generating heat and temperature over 250°C are always risk that it will form toxic gases, for example

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nitrous gases. Example of treatment are grinding, sawing and remelting etc.

11. Toxicological Information

Inhalation:	Finely divided dust may irritate and dehydrate mucous membranes.
Skin contact:	Dust may irritate and dehydrate the skin.
Eye contact:	Dust may irritate and lead to dryness.
Ingestion:	Dust may irritate and dehydrate mucous membranes.

12. Ecological information

Mobility:	Aluminium has poor mobility under normal environment.
Bioaccumulation:	Minimal.
Persistence	Not relevant for the elements in alloy.
Eco-toxicity:	Not classified according to EU Classification system. No eco-toxicity demonstrated by standard OECD test protocols.
Other Information:	The product is not characterised as dangerous for the environment.

13. Disposal Considerations

Aluminium should be recycled. This material contains hexavalent chromium. Material should be taken into care in a way that chromium not will be spread to the environment.

14. Transport Information

Other Information:	Not subject to classification.
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15. Regulatory Information

Symbol:	Not subject to classification.
R-phrases	None.
S-phrases	None.
Other Information:	Regarding the content of hexavalent chromium in electrical and electronic products, see EU directive 2002/95/EG – restriction of the use of hazardous substances (RoHS).

16. Other Information

The information in this sheet is based on present knowledge and experience. The information is provided without any representation or warranty expressed or implied.

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Risk phrases:

- R49 May cause cancer by inhalation.
R8 Contact with combustible material may cause fire
R25 Toxic if swallowed.
R35 Causes severe burns.
R43 May cause sensitisation by skin contact.
R50/53 Very toxic to aquatic organism, may cause long-term adverse effects in the aquatic environment.

Symbol:

- C Causes burns
Canc 1 Cancer, Category 1
N Harmful to the environment
O oxidizing
T Toxic

* Weight% on chromium trioxide differentiates a lot depending on which profile that have past yellow chromating. To get a more correct weight% use the formula that follow:

$$\text{Weight\%} = ((A*B)/(C*10^6))*100$$

A= < 250mg CrO₃/m²
B= the profiles area in m²
C= Profiles weight in kg