SAFETY DATA SHEET

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Aluminium

SECTION 1: Product Description, Applications, Supplier

Product Description
Aluminium, anodized and sealed in hot water.

Processing temperature:	-40°C to +100°C
Sheet dimension:	1000x500 mm
Thickness:	0,5 mm – 1,0 mm – 1,5 mm – 2,0 mm – 3,0 mm
Surface:	matt brushed – glossy

Applications

Aluminium is anodized and suits perfectly for the engraving and printing technology. While anodized aluminium can be engraved with a laser engraver, an engraved contrast will only be realized with gold, black or colored aluminium. The silver version has a clear anodization. Aluminium is often used for industrial applications requiring a durable surface finish.

Details of the supplier of the technical data sheet
Supplier (manufacturer/importer/only representative/downstream user/distributor):
ECKART SIGNPLASTICS GMBH
Technologiepark 10-12
91522 Ansbach
Germany
phone: +49 (0) 981 / 48 75 5-0
fax: +49 (0) 981 / 48 75 5-22
e-Mail: info@eckartgmbh.de
web site: www.eckartgmbh.de

SECTION 2: Composition / Information on Ingredients

EU: This product does not contain any ingredients which are classified as poisonous, dangerous, environmentally harmful or dangerous to health according to EEC guidelines.

Element	CAS No.	Symbol	Conc.%	EU Class.	Exp.Limit(TLV) mg/m³
Aluminium	7429-90-5	Al		none	10
Silicon	7440-21-3	Si	0,3 - 0,4	none	10
Iron	7439-89-6	Fe	0,4 - 0,7	none	10
Copper	7440-50-8	Cu	0,05 - 0,2	none	1
Manganese	7439-96-5	Mn	0,15 - 0,5	none	5
Magnesium	7439-95-4	Mg	0,7 - 3,6	none	10
Chromium	7440-47-3	Cr	0,1 - 0,3	none	0,5
Zinc	7440-66-6	Zn	0,2	none	10

For detailed information on exposure limits, consult your national regulations as these may vary.

SECTION 3: Hazards identification

This product contains no substances classified as harmful to health according to EEC guidelines. 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 or cold material to molten metal may cause explosions (see setion 10).

SECTION 4: First aid measures

Inhalation:
In case of welding fumes, move patient to ventilated area and consult physician if discomfort persists.

Skin contact:
Clean skin thorougly with soap and water. In case of injury (cut etc.) call a doctor.

Eye contact:
In case of dust in eyes, rinse with water.

SECTION 5: Firefighting measures

Fire:
Not a fire hazard except in finely divided form. Fine particles may be produced from grinding, sawing or dry polishing actions.

Extinguishing media
Class D dry powder or dry sand. Do not use water or halogen.

SECTION 6: Accidental Release Measures

Not applicable.

SECTION 7: Handling and Storage

Handling

Advice on fire and explosion prevention:
Material as supplied is not combustible. If material is hot, wear heat resistant gloves, aluminium does not change colour when hot.

Advice on safe handling:
Possibility of sharp edges, wear cut resistant gloves. Do not eat, drink or smoke while working.

Storage

Requirements of storage areas and containers: No special requirements necessary.
Further details on storage conditions: Dry and clean.

SECTION 8: Exposure Control / Individual Protection

During normal handling of solid aluminium none of the exposure limits for the other elements present will be exceeded. Special ventilation may be required when conveying metallic particles from welding, sawing, grinding or polishing operations.

SECTION 9: Physical and Chemical Properties

Form:	solid metal sheet
Colour:	various colours
Odour:	none
Density at 20°C:	2,66 - 2,7 g/cm³
Melting point:	450 - 660 °C
Flammability limits:	not applicable
Vapour pressure:	not applicable
Water solubility:	not soluble
Partition coefficient:	not applicable
Evaporation rate:	not applicable

SECTION 10: Stability and Reactivity

Conditions to be avoided:

Massive metal is stable and none reactive under normal conditions of use, storage and transport. Molten aluminium may react violently in contact with certain metal oxides and nitrates (rust etc.). Avoid metling wet or cold materials as molten metal may cause explosions in contact with water or wet surfaces. In areas with very high dust concentrations, aluminium dust may form an explosive atmosphere.

Hazardous decomposition products:

No information available.

SECTION 11: Toxicological Information

Acute health effects:
Solid aluminium does not present any health effects. Aluminium dust generated during specific operations are conisered as nuisance dust.

Chronic health effects:
Solid aluminium does not present any chronic health effects. Welding or plasma arc cutting of aluminum alloys can generate ozone, nitric oxides and ultra-violet radiation. Ozone exposures may result in mucus membrane irritation, as well as other pulmonary discomforts. If affected seek medical advice.
Aluminium fumes generated during welding or melting operations are considered to be of low health risk.

Carcinogenicity:	no
Mutagenicity:	no
Toxic for reproduction:	no

SECTION 12: Ecological Information

Mobility:	Aluminium is not mobile in the environment under normal environmental conditions.
Persistance:	Not relevant for metals.
Bio-accumulation:	Minimal.
Eco-toxicity:	Not classified according to EU Environmental Classification system. No ecotoxicity demonstrated by standard OECD test protocols.

SECTION 13: Disposal considerations

Aluminium scrap should be recycled.

SECTION 14: Transport Information

No subject to regulation.

SECTION 15: Regulatory Information

The above state information is based on the present state of knowledge and experience. The data sheet describes products in respect of safety requirements. This information cannot be considered as a quality or product warranty. The product is suitable only for the above mentioned standard usage parameters. The manufacturer declines any responsibility in case of improper use of the product when the product is exposed to stresses exceeding the values stated herein.