MATERIAL SAFETY DATA SHEET

This Material Safety Data Sheet has been provided for information purposes only, since according to current legislation the producer is under no obligation to provide any MSDS for this product.

1. PRODUCT IDENTIFICATION **Aluminium and aluminium alloys in mill form and anodic finishes**

Manufacturer	Sapa Profiles UK Ltd
Address	Saw Pit Ind. Est. , Tibshelf, Derbyshire, DE55 5NH
Tel No	01773 872761
Fax No	01773 874389

2. COMPOSITION / INFORMATION ON INGREDIENTS

Element	CAS No	Symbol	Conc.%	EU Class	Exp. Limit (TLV)
Aluminium	7429-90-5	Al	80-99.7	None	10 mg/m3
Copper	7440-50-8	Cu	<7	None	1
Magnesium	1309-48-4	Mg	<6	None	10
Silicon	7440-21-3	Si	<14	None	10
Manganese	7439-96-5	Mn	<3	None	5
Nickel	7440-02-0	Ni	<3	Xn - R 40-43	0.5
Zinc	1314-13-2	Zn	<10	None	10
Tin	7440-31-5	Sn	<8	None	2
Iron	1309-37-1	Fe	<2	None	10
Lead	7439-92-1	Pb	<0.1	None	0.15
Titanium	13463-67-7	Ti	<1	None	10
Antimony	7440-36-0	Sb	<1	None	0.5
Chromium	7440-47-3	Cr	<0.7	None	0.5
Cobalt	7440-48-4	Co	<0.6	Xn - R 42-43	0.1
Zirconium	7440-67-7	Zr	<0.5	None	5

The main elements appearing in concentrations above 0.1% are included. For specific composition refer to the certificate of analysis for the product in question.

For detailed information on exposure limits, consult your national regulations as these may vary. (U.K. HSE publication "EH 40").

3. HAZARD IDENTIFICATION

Aluminium and aluminium alloys in the form that they are supplied are not hazardous to man or the environment. Sharp edges may be encountered on the ends of aluminium extrusions which, if not handled with care, may constitute a physical hazard. Aluminium experiences no colour change when heated thus reducing advanced warning of the possibility of burns.

Anodic film finish is not considered hazardous in itself. If coloured, however, anodic films may contain very small quantities of potentially hazardous material which are sealed within it. If the anodic film is destroyed (for example by the action of strong acid or alkali) then the substances may be released. These substances include dyestuffs and/or heavy metal deposits.

Dust and fume 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 the composition will also depend on welding methods and wire.

The addition of wet or cold materials to molten metal may cause explosions. (See Section 10)

4. FIRST AID MEASURES

EYES	In case of dust, swarf etc flush out with copious amounts of running water. Seek medical advice.
SKIN	In case of burns from hot metal, rinse with copious amounts of cold, running water. Dependent on severity of injury then seek medical advice. Cuts from sharp edges - treat as per severity of wound.
INGESTION	Not applicable
INHALATION	In case of welding fume, remove patient to fresh air. Monitor recovery; if discomfort persists then seek medical advice

5. FIRE FIGHTING 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	Use Class D dry powder or dry sand. Do not use water or halon.

6. ACCIDENTAL RELEASE MEASURES

Not applicable

7. HANDLING AND STORAGE

STORAGE	Keep away from acids and alkalis. Product without film finish should be kept dry.
HANDLING	Possibility of sharp edges. See Section 8 Possibility of eye injuries if cutting or grinding or welding. See Section 8 Possibility of burns (aluminium metal does not change colour when hot). See Section 8

8. EXPOSURE CONTROLS / PERSONAL 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 sawing, grinding or polishing operations.

Local exhaust ventilation plus suitable respiratory protective equipment must be considered when welding.

PERSONAL PROTECTIVE EQUIPMENT	Hands	(Sharp edges) (Burns)	Heavy duty general purpose gloves Kevlar (or similar) gloves, gauntlets or mitts
	Arms	(Sharp edges) (Burns)	Kevlar (or similar) armlets As above
	Eyes		Safety glasses, goggles, welding mask or face shield (to depend on task being carried out)
	Feet		Safety shoes or boots (to depend on task being carried out)
	Body		Metal shedding suits etc applicable for melting/molten product. (Seek specialist advice)

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE	Silvery metallic solid (mill finish). Anodised products will depend on colour ordered
MELTING RANGE	> 660C
DENSITY	2.6 - 2.9
FLAMMABILITY LIMITS	Not applicable
VAPOUR PRESSURE	Not applicable

WATER SOLUBILITY	Not soluble
PARTITION COEFFICIENT	Not applicable
EXPLOSIVE PROPERTIES	None
EVAPORATION RATE	Not applicable

10. STABILITY AND REACTIVITY

Massive metal is stable and non reactive under normal conditions of use, storage and transport

Molten aluminium may react violently if in contact with certain metal oxides and nitrates (rust etc)

Molten metal will explode if in contact with cold or wet surfaces/items

In areas with very high dust concentrations, aluminium dust may form an explosive atmosphere

11. TOXICOLOGICAL INFORMATION

ACUTE HEALTH EFFECTS	Solid aluminium does not present any health effects. Aluminium dust generated during specific operations are considered as nuisance dust.
CHRONIC HEALTH EFFECTS	Solid aluminium does not present any chronic health effects

Welding or plasma arc cutting of aluminium alloys can generate ozone, nitric oxides and ultra-violet radiation. Ozone exposure may result in mucous membrane discomfort/irritation as well as other pulmonary discomforts. If affected then seek medical advice.

Aluminium fumes generated during welding or melting operations are considered to be of low health risk in the short term. Recent studies have suggested long term exposure to fumes from MIG and MAG welding aluminium can induce symptoms akin to Alzheimers disease. Be aware of possible Beryllium exposure when welding Beryllium containing alloys.

CARCINOGENICITY	No
MUTAGENICITY	No
TOXIC FOR REPRODUCTION	No

12. ECOLOGICAL INFORMATION

MOBILITY	Aluminium is not mobile in the environment under normal environmental conditions
PERSISTENCE	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

13. DISPOSAL CONSIDERATION

Aluminium scrap should be recycled

14. TRANSPORT INFORMATION

No specific requirements and not classified under any transport regulation

15. REGULATORY INFORMATION

Not classified under any regulation

16. OTHER INFORMATION

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

IND: MSDS 1.1: 09/06/1999. REVISION No 2.