Aluminium Alloys SDS

6000 series except 6011, 6012, 6013

1. Identification of the substance/preparation and of the company/undertaking

Date issued	10/1/2016
Product name	Aluminum alloys - AlMgSi, 6000 series except 6011, 6012, 6013
Synonyms	EN AW: 6xxx series except: 6011, 6012, 6013
Product group	Extruded Profiles
Use of the substance/preparation	Production of extruded profiles

Producer

Company name	Profile Custom Extrusions, LLC
Office address	100 Anderson Road
City	Rome
State	GA
ZIP	30161
Country	USA
Tel	706-234-7558
Fax	706-234-7649
Prepared by	
Emergency telephone	

2. Hazards identification

Description of hazard	The preparation is not classified as dangerous according to Directive 1999/45/EC and its amendments. Not hazarding as solid ingot. Fine particles from processing may be easily ignitable. Molten metal and fine particles are highly reactive in contact with water, acids, alkalis, strong oxidizers, halogenated compounds and certain metal oxides. Heating or welding of the product may produce toxic fumes of metal oxides.

3. Composition/information on ingredients

Component name	Identification	Classification	Contents
Aluminum (metal)	CAS no.: 7429-90-5 EC no.: 231-072-3		90 - 97 %
Silicon	CAS no.: 7440-21-3 EC no.: 231-130-8		0 - 2 %
Magnesium (metal)	CAS no.: 7439-95-4 EC no.: 231-104-6		0 – 1.5 %
Titanium	CAS no.: 7440-32-6 EC no.: 231-142-3		0 – 0.2 %
Iron	CAS no.: 7439-89-6 EC no.: 231-096-4		0.04 - 1 %
Manganese	CAS no.: 7439-96-5 EC no.: 231-105-1		0 - 1 %
Zinc	CAS no.: 7440-66-6 EC no.: 231-158-0		0 – 0.5 %

Chromium (Cr)	CAS no.: 7440-47-3 EC no.: 231-157-5	0 – 0.5 %
Copper	CAS no.: 7440-50-8 EC no.: 231-159-6	0 – 1.5 %
Vanadium	CAS no.: 7440-62-2 EC no.: 231-171-1	0 – 0.5 %
Column headings	CAS no. = Chemical Abstracts Service; EU (Einecs or Elincs number) = European inventory of Existing Commercial Chemical Substances; Ingredient name = Name as specified in the substance list (substances that are not included in the substance list must be translated, if possible). Contents given in; %, %wt/wt, %vol/wt, %vol/vol, mg/m3, ppb, ppm, weight%, vol%	
HH/HF/HE	T+ = Very toxic, T = Toxic, C = Corrosive, Xn = Harmful, Xi = Irritating, E = Explosive, O = Oxidizing, F+ = Extremly flammable, F = Very flammable, N = Environmental hazard	
Component comments	Other impurities usually < 0,15 %. See section 16 for the full text of the R Phrases declared above.	

4. First-aid measures

General	Normally not relevant for extruded profiles.
Inhalation	In case of discomfort, move to ventilated area. If necessary, seek medical advice
Skin contact	In case of contact with hot metal, flush with plenty of water. If severe, seek medical advice.
Eye contact	If particles or dust got in the eyes, flush with plenty of water. Seek medical advice if discomfort persists.

5. Fire-fighting measures

Suitable extinguishing media	In case of aluminium fires or presence of liquid aluminium use a dry-powder extinguisher.
Improper extinguishing media	Do not use water or halogenated media.
Fire and explosion hazards	In the form of extruded profiles, the product is not flammable and has no risk of explosion. Fine dust from the product may be ignited and represent a risk of explosion. Burning dust from this product will produce noxious smoke containing metal oxides. Fumes from hot metal can form toxic gases with oxides from the metal.

6. Accidental release measures

Methods for cleaning	Collect mechanically. Avoid dust formation and inhalation of dust. Recycle collected material if possible. (See also section 13).
Other instructions	The product can contain small amounts of copper. Copper can form environmental hazardous substances. Care must be taken so the product or dust from the product, is not disposed of in nature.

7. Handling and storage

Handling	Extruded profiles may have sharp edges and sharp surface defects.
Storage	Extruded profiles shall be stored dry and free from oil and dust. Pay attention to stack stability.

8. Exposure controls/personal protection

Exposure limit values

Component name	Identification	Value	Year
Aluminium, dust (OSHA, PEL)	CAS no.: 7429-90-5	8 h.: 5 mg/m³ (resp.)	2008

	EC no.: 231-072-3	8 h.: 15 mg/m³ (total)	
Aluminium, metal (ACGIH, TLV)	CAS no.: 7429-90-5 EC no.: 231-072-3	8 h.: 1 mg/m³ (resp)	2008
Silicon, dust (OSHA, PEL)	CAS no.: 7440-21-3 EC no.: 231-130-8	8 h.: 5 mg/m³ (resp.) 8 h.: 15 mg/m³ (total)	2008
Magnesium oxide, dust (ACGIH, TLV)	CAS no.: 1309-48-4 EC no.: 215-171-9	8 h.: 10 mg/m³ (total)	2008
Iron oxide, fume or respirable dust (as Fe) (OSHA, PEL)	CAS no.: 1309-37-1 EC no.: 215-168-2	8 h.: 1 mg/m³	2008
Iron oxide (ACGIH, TLV)	CAS no.: 1309-37-1 EC no.: 215-168-2	8 h.: 5 mg/m³ (resp)	2008
Manganese and inorganic compounds (as Mn) (OSHA, PEL)	CAS no.: 7439-96-5 EC no.: 213-105-1	15 min.: 5 mg/m³ (short)	2008
Manganese (Mn and compounds) (ACGIH, TLV)	CAS no.: 7439-96-5 EC no.: 231-105-1	8 h.: 0,2 mg/m³ (fume)	2008
Zinc oxide, dust (OSHA, PEL)	CAS no.: 1314-13-2 EC no.: 215-222-5	8 h.: 5 mg/m³ (resp.) 8 h.: 15 mg/m³ (total)	2008
Zinc oxide, fume (OSHA, PEL)	CAS no.: 1314-13-2 EC no.: 215-222-5	8 h.: 5 mg/m³	2008
Zink Oxide, dust (ACGHI, TLV)	CAS no.: 1314-13-2 EC no.: 215-222-5	8 h.: 2 mg/m³ (resp.) 15 min.: 10 mg/m³ (resp.)	2008
Chromium (OSHA , PEL)	CAS no.: 7440-47-3 EC no.: 231-157-5	8 h.: 1 mg/m3	
Chromium (ACGIH, TLV)	CAS no.: 7440-47-3 EC no.: 231-157-5	8 h.: 0,5 mg/m³ (TLV)	
Copper (as Cu) (OSHA, PEL)	CAS no.: 7440-50-8 EC no.: 231-159-6	8 h.: 1 mg/m³(dust/mist) 8 h.: 0,1 15 min.: mg/m³(fume)	2008
Copper (ACGIH, TLV)	CAS no.: 7440-50-8 EC no.: 231-159-6	8 h.: 0,2 mg/m³ (fume)	2008
Vanadium	CAS no.: 7440-62-2 EC no.: 231-171-1	8 h.: 0,05 mg/m³	2003

Exposure controls

Recommended monitoring procedures	Monitor the level of air pollution at the work place. Risk assesment of the use of the product, may result in different use of protective equipment than recommended below.
Other Information about threshold limit values	Exposure Limit Values - Abbreviations: OSHA: Occupational Safety and Health Administration (USA) PEL: Permissible Exposure Limit ACGIH: American Conference of Governmental Industrial Hygienists TLV: Treshold Limit Value C: Cancer A: Allergy National occupational exposure limits must be taken into account. All protective equipment should be labelled with CE. All protective equipment should be tested according to relevant CEN-standards.
Occupational exposure controls	Eye wash facilities should be available. Provide good ventilation. Avoid handling, such as welding, that will produce metal dust.

Respiratory protection	Wear respiratory protection with particle filter P2 in dusty conditions. When cutting, welding, grinding, melting etc, use fresh air supplied respiratory protection.
Hand protection	Wear leather gloves or the like when cutting, welding, grinding, melting etc.
Eye protection	Wear dust proof goggles in dusty conditions. Wear welder's goggles when welding, and tight fitting goggles when cutting, grinding or melting.
Skin protection (other than of the hands)	Use appropriate personal protective equipment to guard against cut or abrasion.

9. Physical and chemical properties

Physical state	Extrusion profile. Weight may vary with the length and diameter.
Odor	None
Color	Grey
Solubility description	Insoluble in water
Specific gravity	**Value:** 2,68 g/cm³ **Comments:** (Al)
Melting point/melting range	**Value:** 560-660 °C
Boiling point	**Value:** 2450 °C **Comments:** (Aluminum)
Vapour pressure	**Value:** 1 mmHg **Comments:** (applies to Al)

10. Stability and reactivity

Materials to avoid	Strong acids or bases. Molten aluminum may explode when getting in contact with water. When in form of particles, aluminum may explode in presence of halogenated acids, halogenated solvents, bromates, iodates or ammonium nitrate. Aluminum particles in contact with copper, lead or iron oxides can react violently and exothermic provided a source of ignition or intense heat.
Hazardous decomposition products	Flammable hydrogen gas may be released when in contact with strong acids or bases. Hydrogen is explosive in concentrations exceding 4 vol-%. Otherwise this product shows little reaction with other chemicals.
Stability	Massive metal is stable and non-reactive under normal condition of use, storage and transport.

11. Toxicological information

Other information regarding health hazards

General	A dust free product does not imply any health risk. Cutting, welding, grinding etc. will generate dust, smoke or particles containing the components of this product. Heating above the melting point will produce metal vapors that can be oxidized to toxic metal oxides, or the vapor might condensate to aerosol containing respirable particles. Inhalation of metal aerosols and fumes might imply a health risk. Contact with hot metal can give severe burns.
Inhalation	Metal dust/fumes may irritate respiratory system. Overexposure to dust or fumes may give chronic health effects (shortness of breath, cough, loss of lung function). Inhalation of fumes may give metal fever.
Skin contact	Metal dust/fumes may provide skin irritation.
Eye contact	Dust irritates eyes.
Ingestion	Dust/particles/vapors may irritate mucous membranes.
Other Information	The product contains small amounts of chromium. Metal fumes of chromium VI compounds can cause cancer and allergy.

12. Ecological information

Components' toxicological data

Other ecological information

Mobility	Aluminum is not mobile in the environment, unless it comes in contact with an aqueous environment with a pH below 5.5 or above 8.5
Environmental details, conclusion	Contains small amounts of copper that can form environmental hazardous substances. Avoid outlet of metal dust, or metal in the environment.

13. Disposal considerations

EWC waste code	06 04 05
Product classified as hazardous waste	No
Specify the appropriate methods of disposal	Collect mechanically and place in suitable container. Dispose of at approved waste receiving station. Recycle if possible.
Other Information	Information of waste number and EWC-code are only intended as a guide. The user has to decide the final waste group numbers and EWC-codes based on the actual use of the product.

14. Transport information

Dangerous goods ICAO/IATA	**Status:** No
Other applicable information.	Not classified as dangerous goods according to ADR, RID, IMDG or IATA.

15. Regulatory information

R phrases	Not subject to classification.
References (laws/regulations)	Compilation of Safety Data Sheet: EC Regulation no. 1907/2006 of European Parliament and of the Council of 18. Dec. 2006 (REACH). Classification and labelling of the product: EU Council Directive 67/548/EEC (substances), Annex I and 1999/45/EC (preparations). Transport classification according to Transport regulations: ADR/RID, IMDG, IATA. OSHA/ACGIH: Occupational Exposure Limit Values European waste catalogue and European Waste List. Norwegian Waste Regulations.
Comments	The preparation is not classified as dangerous according to Directive 1999/45/EC and its amendments.
No duty to declare owing to	Non-hazardous product

16. Other information

Sources of key data used to compile the safety data sheet	Information from the manufacturer.
Information which has been added, deleted or revised	First edition in English
Supplier's notes	The safety data sheet has been approved in accordance with the regulations in force. BIS Production Partner is not responsible for any errors or deficiencies in the information received from the manufacturer/ supplier. The manufacturer/ supplier mentioned in section 1 is legally responsible for the contents of the safety data sheet.
Responsible for safety data sheet	Profile Custom Extrusions, LLC