

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: Outdure QwickBuild

Other names: aluminium extrusion billet, primary aluminium billet, aluminium extrusion ingot

Description: Aluminium framing system for deck, tiles and artificial turf.

Appearance and odor: Aluminium framing

Supplier:

Outdure International Ltd.

1501, Prosperity Tower, 39 Queen's Road

Central, Hong Kong

Telephone: +85230184830

This Material Safety Data Sheet (MSDS) is issued by the Producer in accordance with the Code and guidelines from Safe Work Australia (SWA, formerly the Australian Safety and Compensation Council - ASCC, formerly National Occupational Health and Safety Commission - NOHSC). The information in it must not be altered, deleted or added to. The Producer will not accept any responsibility for any changes made to its MSDS by any other person or organization. The Producer will issue a new MSDS when there is a change in product specifications and/or SWA standards, guidelines, or regulations.

2. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Proportion	CAS Number
Aluminium	>90%	7429-90-5
Magnesium	<5%	7439-95-4
Silicon	<5%	7440-21-3
Copper	<2%	7440-50-8
Manganese	<2%	7439-96-5
Iron	<2%	7439-89-6
Chromium	<1%	7440-47-3
Nickel	<1%	7440-02-0
Titanium	<1%	7440-32-6
Boron	<1%	7440-42-8
Sinc	<1%	7440-66-6
Strontium	<1%	7440-24-6

3. HAZARD IDENTIFICATION

Statement of hazardous nature: product is classified as hazardous according to the criteria of Safe Work Australia SWA (formerly ASCC, formerly NOHSC) Approved Criteria For Classifying Hazardous Substances [NOHSC:1008] 3rd Edition.

Hazard: dust and fumes

The following Risk & Safety phrases relate to the dust or fumes:

Risk Phrases	Safety Phrases
R20: Harmful by inhalation	S22: Do not breathe dust
R36/37/38: Irritating to eyes, respiratory system and skin	S23: Do not breathe gas/fumes

4. FIRST AID MEASURES

Product as supplied is a solid metal and First Aid Measures are non-applicable.

The following First Aid measures are applicable to dust or fumes from melted aluminium:

Swallowed: Rinse mouth and lips with water. Do not induce vomiting. If symptoms persist, seek medical attention.

Eyes: Flush thoroughly with flowing water, while holding eyelids open, for 15 minutes to remove all traces. If symptoms such as irritation or redness persist, seek medical attention.

Skin: Remove heavily contaminated clothing. Wash off skin thoroughly with water. Use a mild soap if available. Seek medical attention for persistent redness or irritation of the skin.

Inhaled: If respiratory irritation, cough, shortness of breath, wheezing or chest tightness occurs after exposure to dust, remove from further exposure, seek immediate medical assistance.

Advice to Doctor: Treat symptomatically.

5. FIRE FIGHTING MEASURES

Fire and explosion hazards: This product is non flammable. Fine dusts present an explosion hazard if dispersed in air at high levels, however due to product form the potential for such explosion is minimal. Reaction with acids or alkalis may generate flammable gas.

Notification procedure: In a fire situation do not use water or foam. Extinguish with dry chemical Class D extinguisher or smother with dry, uncontaminated sand.

Special protective equipment: For fires in enclosed areas, firefighters must use self-contained breathing apparatus.

Hazards from combustion products: None

Special protective precautions and equipment for firefighters: None

Hazchem Code: None

6. ACCIDENTAL RELEASE MEASURES

Spills: collect and reuse where possible.

7. HANDLING AND STORAGE

Handling: Danger of physical injury: Billet bundles may collapse if over-stacked. If stacked the base needs to be smooth and level (not sloping). Outdure's aluminium frame user must employ the proper handling to prevent damage or injury. All products loaded and transported from Outdure sites must comply with local rules and guidelines for load restraint.

Storage: Store away from strong alkalis, halogens, oxidising agents and halogenated hydrocarbons and any fire or explosion risks eg. ammonium nitrate. Prevent contact with all strong acids including hydrochloric acid, sulphuric acid, nitric acid and strong alkalis eg. potassium hydroxide and sodium hydroxide.

Incompatibilities: Reaction with acids or alkalis may generate flammable gas.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

This section applies to dust or fume from cutting, grinding or working of aluminium. When welding Aluminium, more information regarding exposure to welding fume should be sourced and applied, depending on welding method and working conditions.

Exposure standards: National Occupational Exposure Standard (NES) Safe Work Australia, SWA (formerly ASCC, formerly NOHSC).

Exposure to any Aluminium dust should be kept as low as practicable, and below the following NES.

Aluminium: 5 mg/m³ (fume), 10 mg/m³ (dust)

Total dust (of any type, or particle size): 10 mg/m³.

Ventilation: Keep exposures to dust as low as practicable. Open air work or use of natural ventilation (opening of doors and windows in buildings) generally provides adequate ventilation. Local mechanical ventilation or extraction may be required in areas where dust standards cannot be achieved.

Respiratory protection: None required if engineering and handling controls are adequate. A suitable P1 or P2 particulate respirator chosen and used in accordance with AS/NZS 1715 and AS/NZS 1716 may be appropriate in dusty conditions.

Eye protection: Ventilated non-fogging goggles (dust resistant AS/NZS 1336) should be worn when working in a dusty environment.

Skin protection: Excessive or repeated skin contact should be avoided by wearing long sleeved shirts and long trousers, a cap or hat, and gloves (standard duty leather or equivalent AS 2161). Wash work clothes regularly. Wash hands before eating, or smoking.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Solid in various diameters, lengths and weights

Colour: Black

Odor: None

PH Value at stated concentration: Not determined

Vapour pressure: Not determined

Vapour density: Not determined

Boiling point/range: 2467°C

Freezing/Melting point: 482-660°C

Solubility in water: Insoluble

Solubility (other): Not applicable

Specific gravity (H₂O=1): Range 2.5-2.9

Evaporation rate: Not applicable

Flammability: Not flammable

Flash point: Not applicable

Explosive properties: Not flammable

10. STABILITY AND REACTIVITY

Chemical Stability: Stable. Aluminium dust can be highly reactive. Work situations where aluminium dust is created in substantial amounts should be assessed for safety risks.

Incompatible Materials: Store away from strong alkalis, halogens, oxidising agents and halogenated hydrocarbons and any fire or explosion risks eg. ammonium nitrate. Prevent contact with all strong acids including hydrochloric acid, sulphuric acid, nitric acid and strong alkalis eg. potassium hydroxide and sodium hydroxide. Fine powder or freshly cleaned metal surface may react with water (evolving flammable gas).

Conditions to avoid: Dust and fume generation

Hazardous Decomposition products: None

Hazardous Polymerisation: None

11. TOXICOLOGICAL DATA

The following information is applicable to dust or fumes from melted aluminium:

Health Effects:

Acute (short term)

Swallowed: Unlikely under normal industrial use, but swallowing may result in abdominal discomfort.

Eye: Irritating to the eyes, causing watering and redness. May aggravate pre-existing eye conditions.

Skin: May cause mild irritation, and drying to the skin due to its physical characteristics.

Inhaled: Dust is mildly irritating to the nose, throat and respiratory tract and may cause coughing and sneezing. Pre-existing upper respiratory and lung diseases including asthma and bronchitis may be aggravated.

Chronic (long term):

Swallowed: With large doses ingestion may result in nausea, vomiting and gastrointestinal irritation.

Eyes: Dust may cause irritation and inflammation of the eyes and aggravate pre-existing eye conditions.

Skin: Repeated heavy contact with the dust may cause drying of the skin and can result in skin rash (dermatitis) typically affecting the hands. Over time this may become chronic and can also become infected. Allergy to nickel and or chromium may occur.

Inhaled: Repeated exposure to high levels of dust may result in increased nasal and respiratory secretions and coughing. Inflammation of lining tissue of the respiratory system may follow repeated exposure to high levels of dust with increased risk of asthma, bronchitis and pneumonia.

Toxicity Data:

Manganese: LD50 (Ingestion): 9000 mg/kg (rat)

Silicon: LD50 (Ingestion): 3160 mg/kg (rat)

Iron: LD50 (Ingestion): 20000 mg/kg (guinea pig)

Boron: LD50 (Ingestion): 310 mg/kg (rabbit)

12. ECOLOGICAL INFORMATION

Ecotoxicity: Product is non-toxic to aquatic and terrestrial organisms.

Persistence and Degradability: Product is persistent and would have a low degradability.

Mobility: A low mobility would be expected in a landfill situation.

13. DISPOSAL CONSIDERATION

Aluminium Extrusion Billet (and dust) should be recycled as scrap or can be treated as a common waste for disposal or dumped into a landfill site in accordance with local authority guidelines.

Measures should be taken to prevent dust generation during disposal and exposure and personal precautions should be observed.

14. TRANSPORT INFORMATION

Aluminium Extrusion Billet is classified as Non-Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. This product is not specifically regulated by International Maritime Organisation or the International Maritime Dangerous Goods Code.

Transport Requirements: No special transport requirements are necessary.

UN number: None allocated

Class: None allocated

Subsidiary Risk 1: None allocated

Packaging Group: None allocated

Hazchem code: None allocated

DG Class: None allocated

EPG: None

Incompatibilities: None

Proper Shipping Name: None allocated

Marine Pollutant: No

15. REGULATORY INFORMATION

Poisons Schedule: None scheduled

Whilst the information contained in this document is based on data which, to the best of our knowledge, was accurate and reliable at the time of preparation, no responsibility can be accepted by us for errors and omissions. The provision of this information should not be construed as a recommendation to use any of our products in violation of any patent rights or in breach of any statute or regulation. Users are advised to make their own determination as to the suitability of this information in relation to their particular purposes and specific circumstances. Since the information contained in this document may be applied under conditions beyond our control, no responsibility can be accepted by us for any loss or damage caused by any person acting or refraining from action as a result of this information.