

MATERIAL SAFETY DATA SHEET

MSDS No.: ELL76-0020

Company Identification

Name of manufacturer: Mitsubishi Plastics, Inc.
 Name of division: Composite Materials Department
 Address: 1-1-1, Marunouchi, Chiyoda-ku,
 Tokyo 100-8252 Japan
 Telephone: 81-3-6748-7350
 Facsimile: 81-3-3286-1338
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1. Product Name:
 ALPOLIC® / A2
 (Aluminum Composite Material with fire-retardant core filled with non-combustible mineral)

2. Hazardous Identification:
 GHS classification: Not applicable to hazardous classifications
 Wear appropriate protective equipment. Particles involved in mechanical processing may irritate mucosal of respiration apparatus, eyes, mouth, nose, and etc. The edges or corners of the material may cut person's body. A heated product may cause a burn injury.

3. Composition / Information on Ingredients:

Components and CAS Nos.:	<u>Component</u>	<u>CAS No.</u>
	Aluminum	7429-90-5
	Ethylene-copolymer	Not released
	Aluminum tri-hydroxide	21645-51-2
	Calcium carbonate	471-34-1
	Hollow Ceramics	Not released
	Coating	Not released

*Components less than 0.1 wt% are not shown in the above.

Identification in accordance with UN: Not defined in identifications in UN

4. First-Aid Measures

Eye contact:	When eyes are hurt with particle and/or powder during mechanical processing of the product, rinse affected eyes with clean running water. If irritation is persistent afterwards, get ophthalmic check immediately.
Skin contact:	In case of slight burns due to heated product, flush out affected part with large amount of water immediately, to cool down the affected part. In case of serious burns, get medical check immediately.
Inhalation:	When having inhaled a large quantity of powder and/or particle during mechanical processing of the product, move to fresh air, to ensure rest and keep warm, and get medical attention immediately.
Ingestion:	When having ingested a large quantity of powder and/or particles during mechanical processing of the product, get medical check immediately.

5. Fire-Fighting Measures

Prevention of fire spread: In case of occurrence of fire near by the product, cover the products with incombustible sheet or dry sand, to prevent from fire spread to the products.

Fire extinguishing: If the product is ignited, it is effective for initial extinguishing to dash water. Fire fighting shall be done from the lower portion of the products, and then to upper portion. Fire fighting shall be done from windward side with wearing air-breathing apparatus.

Extinguishing media: Water, carbon dioxide, dry-chemical powder and foam fire extinguisher.

6. Accidental Release Measures

Not applicable. Generally, the product is unlikely to spill out accidentally, because of solid nature.

7. Handling and Storage

Handling: Wear gloves to protect hands from scratch and cut with panel edges.

Storage: Store horizontally where the products can be piled up without deflection. Do not wet the product with rain. Keep it away from such chemicals as acid, alkali, strong oxidizer and chlorides, organic solvents, spark and fire.

8. Exposure Control

Permissible content: Normally, control is not required. But, when a large quantity of powder and particles are likely to occur due to mechanical processing of the product, apply the following standards as a reference value.

Applied material	ACGIH TLV, 1999 Edition	Industrial Hygiene Academy of Japan, 1999 Edition
Aluminum particle	10.0mg/m ³	Inhalant particle 0.5mg/m ³ Total particle 2mg/m ³

Note: Unless special remarks is indicated, long term work consisting of 8hrs per day and 5 days per week is available under the above condition.

Facility measures: When the particle content can not be maintained within the permissible range, provide such a suitable facility as partial ventilation.

Personal protection:

Respiratory protection: When particle and small chips exist in certain range, wear respirator.

Eye protection: When operators are exposed to particles and small chips, wear protection glasses during the operation.

Hand protection: Wear gloves to protect hands from scratch and cut with panel edges.

Skin protection: Wear working clothes and safety shoes.

9. Physical and Chemical Properties

Appearance: Panel of 4 mm thick.

Odor: None

Boiling temperature: Approx. 2500°C in aluminum

Melting temperature: Approx. 645°C in aluminum

Approx. 78 to 105 °C in Ethylene-copolymer

Possibility of self-ignition: None

Specific gravity: 2.7g/cm³ in aluminum

0.94 ± 0.01g/cm³ in Ethylene-copolymer

Solubility: Insoluble to water

10. Stability and reactivity

Stability: Stable under normal atmospheric conditions

Susceptibility of oxidization: None

Reactivity with water: None

Self-reactivity: None
Other reactivity: None

11. Toxicological Information

There is no information available.

12. Ecological Information

There is no information available.

13. Disposal Consideration

In accordance with official regulations for waste disposal, dispose by incineration or reclamation as factory waste.

14. Transport Information

The product is packed in wooden crate for transportation. During transportation, please prevent the product from being wet.

15. Regulations

There is no applicable regulation.

16. Other Information

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