

MATERIAL SAFETY DATA SHEET (MSDS)

1. PRODUCT AND COMPANY IDENTIFICATION

<u>Product Name</u>	: Eter sheets and Accessories: Eter6, Eter11, Eter14, EterAX6, EterAX11, EterAX14...
<u>Intended product use</u>	: Fiber-cement corrugated sheets and accessories for roofing & cladding.
<u>Company description</u>	: ETEX BUILDING PERFORMANCE INDONESIA Head office & factory : Jl. Indro no.1, Gresik 61124 - Indonesia E-mail : info.bp.id@etexgroup.com Tel : +62 (0) 31 398 1091 Fax : +62 (0) 31 398 2647 Website : www.kalsi-building-solutions.com

2. COMPOSITION / INFORMATION ABOUT COMPONENT

Description:

Fiber-cement corrugated sheets and accessories, from 3.5mm, 4mm, 5mm and 6mm of thickness, to be used as roofing and wall cladding applications.

Chemical characterization:

The Eter product is a manufactured article, not a substance or a preparation.
The Eter products are manufactured from cement, synthetic & natural fibers, minerals, water and additive.

All ETER product are produced **without using any asbestos** (such as chrysotile, amosite, crocidolite, or any other kind of asbestos).

3. HAZARD IDENTIFICATION

Indication of the hazards:

The installed product in its final application: no hazards known.

By machining (drilling, cutting, sanding, etc.) the product:

- Excessive inhalation of dust may cause irritation of the airways.
- Eye-contact with dust may lead to transient eye irritation or inflammation.
- Prolonged skin contact could lead to irritation for sensitive persons.

Specific risk information for humans and environment:

See sections Number 7 and 8.

4. FIRST AID MEASURES

Inhalation	: Move to a ventilated area and if necessary visit a doctor or a hospital
Skin contact	: Clean it with water. If necessary visit a doctor or a hospital
Eye contact	: Do not rub the eye, rinse out with water. If necessary visit a doctor or a hospital.

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5. FIRE FIGHTING MEASURES

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|--------------------------------------|---|--|
| - Flash point | : | Non-combustible. |
| - Flammable limits | : | LEL: Not applicable,
UEL: Not applicable. |
| - Extinguishing media | : | Not applicable. |
| - Special firefighting procedures | : | None. |
| - Unusual fire and explosion hazards | : | None. |

6. ACCIDENTAL SPILL / RELEASE MEASURES

Not applicable.

7. HANDLING AND STORAGE

Handling:

During working with the **Eter Sheets**:

- Work in well-ventilated area.
- Use tools with dust exhaust system.
- Wear respiratory protective equipment.
- When dust concentration is higher than occupational exposure limit, respiratory protective equipment is obligatory.
- Collect dust with a vacuum cleaner, hose down or wet sweep work areas.
- Do not step on the Eter sheet during installation or service. Stepping or walking directly on the Ether roofing may cause cracks in the product and or lead to work accidents.
- If there is a need to walk on the Eter roof, use a layer of wood or supporting boards with a minimum length of 1.5x the distance between purlins, and make sure the supporting board sits perfectly above 2 (two) purlins.

Storage:

- Pallets should be stored on a flat surface, in a dry, covered, frost proof and well-ventilated area.
- The products must be covered during transport.

8. EXPOSURE CONTROL AND PERSONAL PROTECTION

- Check the latest Occupational Exposure Limits (OEL) for airborne contaminants that are applicable in your country.
- Engineering controls: Ensure vacuum dust exhaust with correct filter when using motorized machining tools.
- Personal protection: Avoid breathing dusts, avoid eye and skin contact, and wear personal protective equipment's appropriate for the task.
- Respiratory protection: Use approved respirators whenever occupational exposure levels are or can be foreseen to be exceeded.
- Eye protection: Use safety goggles whenever tools are used, and dust is produced.
- Skin protection: Use working clothes and gloves to protect against mechanical injury and direct skin contact.
- Working at height: working with Eter sheet and roofing is categorized as working at height, always wear a safety harness and other necessary safety equipment needed for working at height.

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9. PHYSICAL AND CHEMICAL CHARACTERISTICS

Appearance	:	Available in greyish color.
Delivery form	:	Rigid, self-supporting board.
Odor	:	None

Important safety parameters:

Boiling point	:	Not applicable.
Melting point	:	Not applicable.
Flash point	:	Not applicable.
Flammability	:	Not applicable.
Auto flammability	:	Not applicable.
Explosive properties	:	Not applicable.
Oxidizing properties	:	Not applicable.
Vapor pressure	:	Not applicable.
Average density	:	1.47 Kg/dm ³ .
Solubility:		
. Water solubility	:	Insoluble.
. Fat solubility	:	Not applicable.
PH value	:	12 – 13.
Partition coefficient	:	Not applicable.
Viscosity	:	Not applicable.

10. STABILITY DAN REACTIVITY

Stability: Stable.

Incompatibility (materials to avoid): Strong acids.

11. TOXICOLOGICAL INFORMATION

Acute toxicity:

No acute toxicity other than transient irritation of exposed mucosae (eyes, throat, airways).

Further information:

- Prolonged skin contact can lead to moderate skin irritation.
- Hazards are related to the inhalation of dust produced during machining. This risk will be minimal if correct working practices are observed and applied.
- Short-term inhalation of dust can cause transient respiratory irritation.

- As with most types of inorganic and organic dust, non-specific to the **ETER** products, the inhalation of excessive concentrations of dust over prolonged periods of time can lead to chronic inflammation of the airways (industrial bronchitis).

12. ECOLOGICAL INFORMATION

Nothing to report.

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13. DISPOSAL CONSIDERTION

- The product should be handled as building waste in accordance with local legislation
- Please check that you comply with the entire local, state and government regulations for disposal of waste containing described raw materials.

14. TRANSPORT INFORMATION

- Road transport : **Eter Sheets** are not classified as dangerous.
- Inland shipping transport : **Eter Sheets** are not classified as dangerous.
- Sea shipping transport : **Eter Sheets** are not classified as dangerous.
- Air transport : **Eter Sheets** are not classified as dangerous.

15. REGULATORY INFORMATION

Eter Sheets are a manufactured article, not a substance nor a preparation. According to the Indonesia regulations, no label is required.

16. OTHER INFORMATION

The recommendations for machining and installation of the above mentioned **Eter Sheets** should be followed.

The health and safety information contained herein is believed to be accurate and correct based on our current knowledge at the date of issue and no liability can be accepted for any loss, injury or damage resulting from its use. It is intended as a guide for the safe handling, storage and use under normal conditions, but does not necessarily refer to the requirements of a customer when further advice should be obtained.

This data sheet and the information contains in it do not intended to supersede any terms or conditions of sale and does not constitute a specification. Nothing contained herein is to be construed as a recommendation for use in violation of any patent or applicable laws or regulations.

More technical information can be found on the **Eter** product information sheets, the **Eter** product application guidelines, the Etex Building Performance Indonesia (Eter.co.id) website etc.

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