

Product Name **CAST 13 ES**

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name CAST 13 ES

Product Group Extra Strength Fireclay Castable

Supplier Name THE SIAM REFRACTORY INDUSTRY Co., Ltd.

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Recommended Use High Temperature Thermal Insulation

For additional MSDSs and to confirm the most current MSDS of this product, please visit our website (www.siamrefractory.com)

2. HAZARDS IDENTIFICATION

Hazard classification Not classified as a hazardous material according to criteria of NOHSC
NON-HAZARDOUS SUBSTANCE.
NON-HAZARDOUS GOODS.

Risk phrase (s) Not classified as a hazardous material according to criteria of NOHSC

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient	CAS Number	Proportion (%)
Alumina	1344-28-1	30-50
Silica	14808-60-7	40-60
Calcium Aluminate	65997-16-2	0-20

4. FIRST AID MEASURES

Eye Contact	If in eyes, hold eyelids apart and flush the eyes thoroughly and continuously with running clean water. Continue flushing for at least 15 minutes. If irritation persists, seek medical attention. Contact lenses removal should only be undertaken by skilled personnel.
Skin Contact	Wash areas of contact with clean water and pH-neutral soap. If irritation continues, seek medical attention.
Inhalation	Move to fresh air. Seek medical attention if coughing or other symptoms persist.
Ingestion	As shipped, product not likely to be ingested; but if it occurs, do not induce vomiting, drink plenty of water. Seek medical attention.

5. FIRE FIGHTING MEASURES

Flammability	Non flammable
Fire and Explosion	Non flammable. No fire or explosion exists
Suitable Extinguishing media	No specific requirements

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Avoid direct contact with product or dusts from product by wearing protective clothing, using approved respiration protection and wearing gloves.
Cleanup measures	Dry sweeping of materials should be avoided to minimize dust emissions into the air.

7. HANDLING AND STORAGE

Precautions for Safe Handling	Avoid direct contact with product or dusts from product by wearing protective clothing, using approved respiratory protection and wearing gloves of the impermeable type.
Conditions for safe storage	The product should be kept in a dry location until used and away from sources of heat (furnaces, boilers, incinerators, etc.).

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls	Process enclosures, local exhaust ventilation, or other engineering process controls may be necessary to keep any air contaminants associated with this product within their TLV's. This is particularly true if user operation generates dust.
Respiratory Protection	This product is a proprietary mixture of unique ingredients. It does not have an established limit for airborne concentration, which workers can routinely be exposed to without suffering adverse health effects. The user must review his/her own circumstances and then determine what is required to establish a respiratory program. Some type of respiratory protection is recommended even for the best conditions. Actual respirator selection should be made after consultation with a competent health and safety professional.
Eye Protection	Wear safety glasses with side shields or goggles
Hand Protection	Wear gloves to prevent direct skin contact.
Other Protective Clothing or Equipment	Wear clothing designed to limit direct exposure to product or dusts associated with product. If clothing becomes contaminated, it should be laundered before wearing again. Maintain good personal hygiene. Wash hands thoroughly before eating or drinking.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	White/Gray/Brown aggregate and powder
Odor	Odorless
pH value	7-8
Vapor Pressure	Not available
Vapor Density	Not available
Boiling Point	Not available
Melting Point	> 1300°C
Solubility in water	Slightly (Calcium Aluminate Cement)
Density	1800-2400 kg/m ³
Evaporation rate	Not available

% Volatiles	Not available
Flammability	Non Flammable
Flash Point	Not available
Flammable Limits-Lower	Not available
Flammable Limits-Upper	Not available

10. STABILITY AND REACTIVITY

Chemical Stability	This product is stable under normal conditions for shipping, storage and installation. Product will react with water and solidify within 1-24 hours
Conditions to Avoid	None
Incompatible Material	None Hazardous Decomposition None
Hazardous Polymerization	None
Hazardous reaction	None

11. TOXICOLOGICAL INFORMATION

Health Hazard summary	Low toxicity. Use safe work practices to reduce eye or skin contact and dust generation-inhalation.
Eye	Contact with dust or powder may cause irritation
Skin	Repeated or prolonged contact may cause irritation
Inhalation	May irritate the respiratory tract on prolonged or repeat contact and may aggravate pre-existing respiratory conditions.
Ingestion	Not applicable
Carcinogenicity	Not applicable
Chronic Effects	Prolonged breathing of dust may cause lung disease.

12. ECOLOGICAL INFORMATION

Accidental Release	No information has been developed regarding the eco-toxicity or environmental fate of this product.
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13. DISPOSAL CONSIDERATIONS

Waste Disposal Method	The as-manufactured refractory or dust from this material is not considered a hazardous. However, used product (and dusts generated during maintenance and tear-out operations) May be contaminated with other hazardous substances from the particular application (for example, metals). Therefore, appropriate waste analysis may be necessary to determine proper disposal. A qualified environmental professional in accordance with applicable federal, state, and local regulations should determine waste characterization and Disposal/treatment methods.
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14. TRANSPORT INFORMATION

Transport Information	Not regulated as a hazardous material
U.N. Number	Not applicable

15. REGULATORY INFORMATION

Not applicable

16. OTHER INFORMATION

Other Information	The information contained in this Material Safety Data Sheet is believed to be accurate. However, SRIC makes no warranty with respect to the accuracy of the information or the suitability of the recommendations and assume no liability to any user based upon use of the product or reliance upon the information contained in this Material Safety Data Sheet.
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