

## SAFETY DATA SHEET

**[Product Group]** Insulating Fire Brick

### 1. IDENTIFICATION OF SUBSTANCE / PREPARATION AND OF THE COMPANY

**[Trade Names]** LBK-20, LBK-23, LBK-23F, LBK-26, LBK-28, LBK-28S, LBK-30  
LBK-30H, LBK-3000, LBP-13, LBP-14, LBP-15, LBP-15H

**[Generic Terms]** Insulating Fire Brick

**[Manufacturer/Supplier]**

Company Name : Isolite Insulating Products Co., Ltd.

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### 2. HAZARDS IDENTIFICATION

GHS Classification

Item		Evaluation	Remarks
Physical Hazards	Explosives	Not applicable	
	Flammable gases	Not applicable	
	Flammable aerosol	Not applicable	
	Oxidizing gases	Not applicable	
	Gases under pressure	Not applicable	
	Flammable liquids	Not applicable	
	Flammable solids	Not classified	Noncombustible
	Self-reactive substance and mixtures	Not applicable	
	Pyrophoric liquids	Not applicable	
	Pyrophoric solids	Not classified	Noncombustible
	Self-heating substance and mixtures	Not classified	Noncombustible
	Substance and mixtures ,witch in contact with water ,emit flammable gases	Not classified	Noncombustible
	Oxidizing liquids	Not applicable	
	Oxidizing solids	Not applicable	
	Organic peroxides	Not applicable	
	Corrosive to metals	Not applicable	No data available

Health Hazards	Acute toxicity (oral, dermal, inhalation)	Not classified	
	Skin corrosion/irritation	Not applicable	
	Serious eye damage/eye irritation	Not applicable	
	Respiratory /skin sensitizer	Not applicable	
	Germ cell mutagenicity	Not classified	
	Carcinogenicity	Category1A	
	Toxic to reproduction	Not Applicable	No data available
	Specific target organ toxicity following single exposure	Category1	Respiratory system, respiratory tract irritation
	Specific target organ toxicity following repeated exposure	Category1	Respiratory system, kidney, lung
Environmental Hazards	Aspiration hazard	Classification not possible	No data available
	Hazard to Aquatic Environment (Acute)	Classification not possible	No data available
	Hazard to Aquatic Environment (Chronicity)	Classification not possible	No data available
	Hazard to Ozone layer	Classification not possible	No data available

Pictogram or Symbol :



Signal word : “Danger”

Hazard Statement :

- . (Respiratory tract irritation) May cause respiratory irritation.
- . May cause damage to respiratory system.
- . Causes damage to respiratory system, kidney and lung through prolonged or repeated exposure.
- . May cause cancer

Precautionary statements

Prevention :

- . Don't handle the material until you read and understood all precautionary statements of its safety.
- . Wear protective glove/ protective clothing/ eye protection/ face protection.
- . Do not breathe dust, fume.
- . Do not eat, drink or smoke when using this product.
- . Wash hands thoroughly after handling.

**Response**

. If exposed or concerned get medical advice/ attention.

**Storage**

. Store indoors, away especially from water.

**Disposal**

. Dispose of contents container to in accordance with local regulations.

**3. COMPOSITION / INFORMATION ON INGREDIENTS**

Substance/Mixture : Mixture

	CAS No.	Content (%)	EC No.
Alumina	1344-28-1	40-77	215-691-6
Silica	7631-86-9	22-60	231-545-4

**4. FIRST AID MEASURES**

- If inhaled : If inhaled plenty of dust, immediately remove victim to fresh air. If the victim shows breathing abnormality, immediately get medical advice/attention.
- If on skin : Wash with soap and water.
- If in eyes : If dust contact with eyes, immediately rinse with clean water or eyewash. If abnormality persists, get medical advice/attention.
- If swallowed: Rinse mouth with water. Immediately get medical advice/attention.

**5. FIRE FIGHTING MEASURES**

Material is unflammable. Therefore, no particular measures are established.

**6. ACCIDENTAL RELEASE MEASURES**

Personal precautions, protective equipment and emergency procedures :

Avoid raising dust during a process and recover it. Wear proper protective equipment and avoid contacting dust with eyes and skin and inhaling dust.

Environmental precautions :

Nothing particular.

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## 7. HANDLING & STORAGE

### [ Handling Instructions ]

- .Do not handle until all precautionary statements have been fully understood.
- .Use only well-ventilated place.
- .Wash hands thoroughly after handling this product.
- .Wear protective gear if necessary.
- .Do not breathe fume/dust.

### [ Storage instructions ]

- . Avoid exposure to water.
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## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### Exposure Limits

ACGIH's recommendation(2015) : Refractory ceramic fiber ...0.2f/cm<sup>3</sup>

Alumina...TWA 10 mg/m<sup>3</sup>

Inhalant crystalline silica

Quartz...TWA 0.025 mg/m<sup>3</sup> total dust 0.05 mg/m<sup>3</sup>

Cristobalite...TWA0.025 mg/m<sup>3</sup> total dust 0.05 mg/m<sup>3</sup>

- Protective Equipment : Close up the area where dust originates and install local ventilation or arrester. If not equitable, wear protective gear described below.
- Protective Gear : If the concentration exceeds the criteria mentioned above, wear protective mask. Filter replacement type mask is the most appropriate.
- Eye protection : Wear proper eye protection to suit the work and environment such as chemical goggles, safety glasses with side shields.
- Skin protection : Wear gloves and long-sleeve work clothes not to expose skin.
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## 9. PHYSICAL & CHEMICAL PROPERTIES

- Physical form : compact
- Color : gray to lemon yellow
- pH : No date
- Melting point : 1500°C over
- Boiling point, Flash point, Burning point : incombustibility
- Bulk density : 0.4~1.2 g/cm<sup>3</sup>
- Solubility for the solvent : Indissolubility to water and an organic solvent
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**1 0 . STABILITY & REACTIVITY**

Stability	: Stable under normal conditions.
Possibility of hazardous reactions	: React with strong acids and hydrogen fluoride.
Conditions to avoid	: Diffusion of dust
Material to avoid	: Strong acids and hydrogen fluoride.
Hazardous decomposition products	: Nothing

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**1 1 . TOXICOLOGICAL INFORMATION**

When there is only data for a mixture available for a substance, GHS classification of the substance as a pure substance is performed.

As reference, data of each ingredient are shown below.

Carcinogenicity	: May cause cancer. IARC68: 1, NTP RoC: K, Japan Society for Occupational Health: 1. (Category 1A) (crystalline quartz)
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Specific Target Organ / Systemic Toxicity (Single Exposure):

Upper respiratory irritation (Category 3, respiratory tract irritation) (Aluminum oxide)

Short-term exposure affects the respiratory system in humans in case of high inhalation concentration. (Category 1, respiratory system) (crystalline quartz)

Specific Target Organ / Systemic Toxicity (Repeated Exposure):

By occupational exposure of aluminas, pulmonary fibrosis was occurred. (Category 1, lung) (aluminum oxide)

Respiratory system and kidney are affected in humans. (Category1, respiratory system and kidney) (crystalline quartz)

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**1 2 . ECOLOGICAL INFORMATION**

No information on environmental hazards.

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**1 3 . DISPOSAL CONSIDERATIONS**

Waste must be disposed of in accordance with national and or regional environmental control regulations. Waste must be sent to an approved incinerator or disposed in an approved waste facility.

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**1 4 . TRANSPORT INFORMATION**

No hazard but avoid generations of dust by breakage of package during transportation.

United Nations (UN) Classification : Not Applicable

United Nations (UN) Number : Not Applicable

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**1 5 . REGULATORY INFORMATION**

No information.

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**1 6 . OTHER INFORMATION**

No information.

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**[ Revision information ]**

Date of Revision	Description
Jan 1, 1996	NEW
June.01,2016	Added Composition / Information on ingredients Added Reference
Sep.1,2017	Changed:3.Composion/Information on Ingredients
Mar. 1,2018	Revised: 3.Composition/Information on ingredients 13.Disposal considerations
Mar.18,2019	Added : 1.Trade Names
May.27,2019	Added : 1.Trade Names

**[ References ]**

1. IARC : Monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Humans  
Vol. 81 (2002) ,“Man-made Vitreous fibers”
  2. ACGIH : Recommendation on the Acceptable Concentration (2015)
  3. CEN : prEN1094-1
  4. National Institute of Technology and Evaluation (NITE) : Data base of “Total Information Service System on Chemical Substances”
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Information given above will be revised whenever additional information becomes available. The information concerning content and physical and chemical properties described above doesn't mean to indicate the guaranteed value of those. Evaluation of risk and hazard was made based upon information and data available at present but not based upon all of them.