



MATERIAL SAFETY DATA SHEET

Insulating Firebrick, Revision n° 7-EU Effective: Oct-2015

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1. IDENTIFICATION OF THE PRODUCT AND OF THE COMPANY

1.1 Product :

Commercial Name:

T23C, T23, T23HS, T24, T25, T25-09, T25-10, T25AL, T25HS, T26A, T26B, T26, T26HS, T26-10, T26-60, T28, T28HS, T30, T32, T33, T135-12, T140-12, T150-11, T160-12

Insulating Firebrick

1.2 Use of the product

Non inflammable Insulating Firebrick suitable for lining of industrial furnaces and high temperature processes.

1.3 Company Name

1.2.1 Manufacturer

Tianjin New Century Refractories Ltd.
1207 ICTC, 59 Machang Road, Hexi, Tianjin, China 300203
Tel: +86-22-8558-9019
Fax: +86-22-8558-9023
<http://www.tncrltd.com>
[email: sales@tncrltd.com](mailto:sales@tncrltd.com)

1.2.2 Contacts

Dr. Yong S. Dai
Tel: +86-22-8558-9019
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1.4 Emergency phone number

Tel: +86-22-8558-9019
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2. HAZARD IDENTIFICATION

1.3 Mix classification:

No specific danger encountered with normal use..

The mix the article is made of, does not satisfy the criteria of Rule 99/45/CE and following modifications.

1.4 Other hazards:

However we will point out that continuous use of these products, as for many refractory products and particularly for temperatures higher than 900 °C, may produce Crystalline Silica as Quartz and Cristobalite.

Free Crystalline Silica is not included in annex. I of Principal Directive 67/548/CE and following modifications (now annex. VI of Rule N°1272/2008 (CLP)), anyhow professional exposure to crystalline silica dust could cause lung fibrosis (silicosis) and according to IARC an increased risk of developing lung neoplasia.

ACGIH classified inhaled Crystalline Silica as Quartz or Cristobalite as suspected carcinogen for humans (class A2).

3. COMPOSITION AND INFORMATION ON INGREDIENTS

3.1 Product :

Calcium Silicate and Alumina product, Alumina Silicate, Alumina Oxide, Silica Oxide, Other non hazardous Oxides.

3.2 Ingredients causing health risks :

Substances, hazardous for health according to Regulations and following modifications, or substances for which there are exposure known limits

Substance	Range	CAS	EINECS	
Quartz	0-1%	14808-60-7	238-878-4	Substance with EU limited exposure on work place
Cristobalite	0-0.5%	14464-46-1	238-455-4	Substance with EU limited exposure on work place



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4. FIRST-AID MEASURES

4.1. Description of first aid measures

4.1.1 Inhalation

Ventilate the room. Remove immediately the patient from the contaminated place and keep him at rest in a well aired place. Drink water and blow the nose. If uneasiness persist seek medical advice.

4.1.2 Contact with skin:

Rinse with fresh water for at least 15 minutes. In case of irritation seek medical advice.

4.1.3 Contact with eyes:

Rinse with fresh water for at least 15 minutes. In case of irritation seek medical advice.

4.1.4 After accidental significant ingestion :

In case of ingestion rinse mouth with plenty of water and seek medical advice.

4.2. Principal acute and delayed symptoms:

Not applicable

4.3. Indication of the need of seeking immediate medical advice and special treatments :

On the base on the exposure level periodical medical advice is recommended.

Accidental contact is to be intended under dust form .

5. FIRE-FIGHTING MEASURES

5.1 Extinguishment equipment

In case of fire of the surrounding area all extinguishing equipment can be used.

5.2 Hazards arising from the mix

Product non inflammable and not explosive.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, personal protection equipment and emergency procedures:

Clean using protection goggles and anti dust masks (see also point 8.2.1)

6.2 Ecological information :

Avoid flushing into drains or water streams. Should this happen please advise competent authorities.

6.3 Methods and materials for retaining and reclamation :

Avoid raising of dust by wetting the floor before dusting. Do not use compressed air.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling :

7.1.1 Recommendations

Avoid a contact and inhalation of dusts. Handling has to be done, as much as possible, using aspiration system with filters. See point 8.

7.1.1 General Recommendations on professional hygiene

Do not eat or drink during work.

7.2 Conditions for a safe storage and possible incompatibility:

No particular condition needed. See point 10.

Storing Conditions: no limit for quantities when storing material.

Indication for stocking place: well aired and dry room, repaired from rain.

8. EXPOSURE CONTROL AND PERSONNEL PROTECTION

8.1 Control parameters:

Exposure limits of contained substances :

*TLV TWA: 3 mg/m³ (ACGIH 2010) breathable product dust

*TLV TWA: 0.025 mg/m³ (ACGIH 2010) QUARTZ breathable dust

*TLV TWA: 0.025 mg/m³ (ACGIH 2010) CRISTOBALITE breathable dust

*weighted average on breathable dust in 8 working hours



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8.2 Exposure controls

8.2.1 Suitable technical controls

All protection recommendations are to be intended exclusively on direct exposure of workers to mix breathable dusts. Possible environmental controls on breathable air will allow to adopt suitable work precautions measures..

It is good to review work processes in order to analyze the real fonts of exposure to vapors..

8.2.2 Individual protection measures

8.2.2.1 Eye protection:

Not necessary during normal use. However work according to good working rules and wear safety goggles when it is possible to get in contact with fine dusts made by processing of the product.

8.2.2.2 Skin protection:

No particular precaution is needed during normal use. It is however advised to have a good personal and working clothes hygiene.

8.2.2.3 Respiratory protection:

Use respiratory protection in case of air dusts .

In case of concentration below the limit value no protection is compulsory but a type FFP2 mask could be proposed to be used on voluntary basis.

8.2.2.4 Hand Protection:

Where necessary use work gloves if in direct contact with dusts.

8.3 Environmental exposure controls

Avoid product to be released in the environment

9. PHYSICAL AND CHEMICAL CHARACTERISTICS

9.1 Information on physical and chemical characteristics :

Appearance White-beige porous brick

Odor None

Oxidizing properties Non applicable

Melting point > 1400 °C

Boiling point Non applicable

Inflammable point Non applicable

Explosive properties Non applicable

Density 0.4 – 1.3 g/cm³

Solubility Non applicable

9.2 Other information

No other data available

10. STABILITY AND REACTIVITY

10.1 Reactivity: Brick is a stable product

10.2 Chemical stability: N.A.

10.3 Possibility of dangerous reactions: N.A.

10.4 Conditions to avoid: N.A.

10.5 Non compatible materials: N.A.

10.5 Decomposition dangerous products: The use of these products as per many other refractory materials at temperatures higher than 900 °C can produce cristobalite (a form of crystalline Silica).



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11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

11.1.1 Acute Toxicity

There are no available data on the product itself. However please take into consideration the concentration of the single substances in order to evaluate the toxicological effects arising from the use of the products. The use of these products as for many other refractory materials at temperatures higher than 900°C can produce cristobalite (a form of crystalline Silica).

11.1.2 Immediate, delayed, chronic effects arising from short and long term exposure

These products have a small percentage of Crystalline silica.

Professional exposure to its dust could cause lung fibrosis (silicosis) and according to IARC an increased risk of developing lung neoplasia. ACGIH classified inhaled Crystalline Silica, such as Quartz or Cristobalite, as suspected carcinogen for humans (class A2)

However please note that the carcinogen effect depends on the characteristics of the Silica and the biological - physical conditions of the environment.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

This product is stable through time. It could propagate during handling as dust.

Use according to good working precautions avoiding re leasing the product in the environment.

13. DISPOSAL CONSIDERATIONS

13.1 Waste disposal methods

Recuperate where possible. Work as per local and National Regulations .

Where applicable refer to Rules: 91/156/CEE, 91/689/CEE, 94/62/CE and following modifications.

14. TRANSPORT INFORMATION

14.1 ONU number : N.A.

14.2 ONU Shipment number : N.A.

14.3 Danger class annexed to transport: N.A.

14.4 Packaging group: N.A.

14.5 Environment Dangers : N.A.

14.6 Special precautions for users: N.A.

15. REGULATORY INFORMATION

15.1 Rules and Laws on health, safety and environment specific for the article

D.Lgs. 2/2/2002 n. 25 (Risks arising by Chemical agents during work) . D.M. Lavoro 26/02/2004 (Professional exposure limits), D.Lgs 81/08, Rule (CE) n. 1907/2006 (REACH) en.1272/2008 (CLP).

15.2 Chemical security evaluation N.A.

16. OTHER INFORMATION

This Safety data sheet was subject to amendments to comply to new dispositions of Reach Rule n.453/2010 and modifications of Reach Regulation Reach 1907/2006 on writing of this document.

NOTICE:

The information presented herein is based on data considered to be accurate as of the date of preparation of this Material Safety Data Sheet. However, no warranty or representation, express or implied, is made as to the accuracy or completeness of the foregoing data and safety information, nor is any authorization given or implied to practice any patented invention without a license. In addition, no responsibility can be assumed by the vendor for any damage or injury resulting from abnormal use, from any failure to adhere to recommended practices, or from any hazards inherent in the nature of the product.