

Material Safety Data Sheet

Tianjin New Century Refractories Ltd.

PRODUCT HEALTH AND SAFETY INFORMATION

1. IDENTIFICATION OF THE PRODUCT AND OF THE COMPANY.

PRODUCT NAME: TNCR "T" Insulating Fire Brick (All Grades)

PRODUCT TYPE: 2300 - 3000 °F Insulation Firebrick

DESCRIPTION: Refractory Shape

SUPPLIER: Tianjin New Century Refractories Ltd.
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2. COMPOSITION/INFORMATION ON INGREDIENTS.

<u>CAS No.</u>	<u>Component</u>	<u>Range</u>	<u>Risk Phrases</u>
7631-86-9	silicon dioxide, chemically prepared	10-60%	-
1344-28-1	non-fibrous alumina	40-80%	-
1305-78-8	calcium oxide	0-5%	-
13463-67-7	titanium dioxide	0-3%	-
14808-60-7	crystalline silica (quartz)	0-1%	-
14464-46-1	crystalline silica (cristobalite)	0-0.5%	-

3. HAZARD IDENTIFICATION.

- **Hazard description:** Irritant
- **Medical conditions aggravated by exposure to the product:** Asthma, chronic lung disease, and skin irritation.
- **Carcinogenicity Information:**
Crystalline silica is listed by IARC as a Group 1 Carcinogen "sufficient evidence of carcinogenicity in humans", and is listed by NTP as K, "Known To Be A Human Carcinogen".
- **Information pertaining to particular dangers for man and environment:**
The product has to be labeled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.
May cause cancer by inhalation.
Irritating to eyes, respiratory system and skin.
Danger of serious damage to health by prolonged exposure.
- **NFPA ratings (scale 0-4)**



Health = 1
Fire = 0
Reactivity = 0

• **HMIS Classification**

HEALTH	*1
FIRE	0
REACTIVITY	0

Health: *1
Flammability: 0
Reactivity: 0

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4. FIRST AID MEASURES.

SKIN CONTACT: Wash off any dust with soap and water.
EYE CONTACT: Immediately gently irrigate with clean water and seek medical assistance.
INHALATION: Remove to fresh air ; consult doctor if needed.
INGESTION: Do not induce vomiting, seek medical assistance.

5. FIRE FIGHTING MEASURES.

Refractory products are heat resistant and therefore are not expected to burn.
 Use extinguishing media appropriate to surrounding fire and packaging materials etc,
 No special measures are required.
 No known special hazards caused by the material (see above).

6. ACCIDENTAL RELEASE MEASURES.

Individual items are unlikely to be released, therefore there are no known risks and no special measures are required.

7. HANDLING AND STORAGE.

· **Handling:**
 · **Information for safe handling:**
 Ensure good ventilation/exhaust at the workplace.
 Prevent formation of dust.
 Information about protection against explosions and fires: *Keep respiratory protective device available.*
 · **Storage:**
 Requirements to be met by storerooms and containers: *No special requirements.*
 Information about storage in one common storage facility: *Not required.*
 Further information about storage conditions: *Store the product inside, out of extreme weather conditions.*

8. EXPOSURE CONTROL/PERSONAL PROTECTION.

Occupational Exposure Limits

CAS No.	Substance	PEL	REL	TLV
1344-28-1	non-fibrous alumina	15*;5** mg/m ³	-	10mg/m ³
1309-37-1	iron oxide	10mg/m ³	5mg/m ³	5mg/m ³
13463-67-7	titanium dioxide	15*mg/m ³	Lowest feasible conc.; (LOQ 0.2 mg/m ³)	10mg/m ³
14808-60-7	crystalline silica (quartz)	-	0.05**mg/m ³	0.05mg/m ³
14464-46-1	crystalline silica (cristobalite)	-	0.05**mg/m ³	0.05mg/m ³

* Total dust ; ** Respirable fraction

Control Measures:

Where user operations (e.g. cutting, grinding or wrecking) are likely to generate dust, local ventilation should be employed. It may be necessary dependent upon the users' assessment of the process to undertake a program of monitoring to demonstrate that any Occupational Exposure Standard is not normally exceeded.

Personal Protection:

Eye Protection: Safety glasses with side shields recommended.
 Hand Protection: Suitable non-slip work gloves.
 Respiratory Protection: Use a nationally approved dust mask during wrecking.
 Body Protection: Overalls and safety footwear advisable.

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Breathing equipment:



NIOSH approved respirators should be used if dust is present. A respiratory protection program should be implemented if exposures exceed OSHA PELs

Protection of hands:



Protective gloves recommended

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves:

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material:

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

9. PHYSICAL AND CHEMICAL PROPERTIES.

Appearance:	White solid shape
Odour:	No discernible odour at ambient temperature
Density:	No determined
Solubility in water:	Insoluble

10. STABILITY AND REACTIVITY.

Stability:	Stable as supplied and at temperature.
Incompatibility:	None known.
Hazardous Decomposition:	Fume/volatile emissions when first heated.

11. TOXICOLOGICAL INFORMATION.

The material is not toxic.

Short-term exposure to volatiles may cause irritation and possible sensitisation of eyes, nose and throat and may cause nausea and dizziness. Exposure to large amounts of dust over long periods may cause lung damage.

12. ECOLOGICAL INFORMATION.

The product is inert and is not likely to impact on the environment.

13. DISPOSAL.

Recommendation for Disposal of Product:

As sold, this product is not RCRA hazardous. If the product is not used, normal landfill waste disposal via authorized contractor, observing any national Environmental Protection Regulations. Final used condition must be evaluated prior to disposal. Dispose of waste product in accordance with Federal, State and local regulations.

Dust created during demolition of used product may contain crystalline silica.

Packaging material should be sorted and recycled where appropriate.

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14. TRANSPORT.

No special labeling or transport requirements have been identified for this product.

15. REGULATORY INFORMATION.

No labeling is required in accordance with the Chemical (Hazard Information and Packaging) for Supply (Amendments) Regulations 1997.

SARA 313 TOXIC CHEMICALS:

No material listed in the components in Section 2 of this MSDS is on the SARA 313 List;

SARA 302 EXTREMELY HAZARDOUS SUBSTANCES:

No material listed in the components in Section 2 of this MSDS is on the SARA 302 List.

TSCA (Toxic Substance Control Act):

This substance or all the intergradient of this product are on the Chemical Substance Inventory of the Toxic Substance Control Act (TSCA Inventory). The presence on this list does not require any legal reporting.

WHMIS Classification

Class D – Division 2 – Sub Division A.

Untested mixture containing a very toxic material.

Class D – Division 2 – Sub Division B

Untested mixture containing a toxic material.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

This product contains chemicals known to the state of California to cause cancer.

Format of Data sheet is

in line with the Safety Data Sheets Directive (93/112/EEC)

Complies with the requirements of the Control of Substances Hazardous to Health Regulations 1994

16. OTHER INFORMATION.

This information is provided to enable customers to assess the health and safety requirements of products. Whilst it is given in good faith, and taken from sources believed to be accurate at the date hereof; Tianjin New Century Refractories Ltd. makes no expressed or implied warranty with respect to the accuracy of the information or the suitability of the recommendations and assumes no liability to any user thereof and cannot accept any responsibility for loss or damage arising from use, or reliance upon this information.

Any further new information on the safety aspects of our products will be supplied as and when it becomes available.