

**SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**
**1.1 PRODUCT IDENTIFIER**

<b>Product name</b>	CERBEC Silicon Nitride SN101C, NT154, NBD 200, SN571
<b>EC number</b>	234-796-8
<b>CAS number</b>	12033-89-5
<b>Product code</b>	Not available
<b>Product description</b>	Dense Ceramic Components
<b>Product type</b>	Solid
<b>Other means of identification</b>	CERBEC Silicon Nitride SN101C, SN571, NBD200, and NT154

**1.2 RELEVANT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND USES ADVISED AGAINST**

**Identified uses** None known

**1.3 DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET**

**Supplier's details** CoorsTek  
 14143 Denver West Parkway, Suite 400  
 Golden, CO 80401  
 Phone: +1 303 271 7100  
 Fax: +1 303 271 7009  
 Website: www.coorstek.com

**e-mail of person responsible for this SDS** coorsteksd@coorstek.com

**1.4 EMERGENCY TELEPHONE NUMBER**

**Emergency telephone number (with hours of operation)** +1 303 271 7100  
 8am-5pm MDT (M-F)

**SECTION 2: HAZARDS IDENTIFICATION**
**2.1 CLASSIFICATION OF THE SUBSTANCE  
OR MIXTURE**

<b>Product definition</b>	Mono-constituent substance
<b>Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]</b>	Not classified
	The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended. See Section 11 for more detailed information on health effects and symptoms.

**2.2 LABEL ELEMENTS**

<b>Signal word</b>	No signal word
<b>Hazard statements</b>	No known significant effects or critical hazards
<b>Precautionary statements</b>	
<b>Prevention</b>	Not applicable
<b>Response</b>	Not applicable
<b>Storage</b>	Not applicable
<b>Disposal</b>	Not applicable
<b>Supplemental label elements</b>	Not applicable
<b>Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures, and articles</b>	Not applicable

**SPECIAL PACKAGING REQUIREMENTS**

<b>Containers to be fitted with child-resistant fastenings</b>	Not applicable
<b>Tactile warning of danger</b>	Not applicable

**2.3 OTHER HAZARDS**

<b>Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII</b>	Not available
<b>Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII</b>	Not available
<b>Other hazards which do not result in classification</b>	None known

### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

#### 3.1 SUBSTANCES Mono-constituent substance

PRODUCT/INGRE-DIENT NAME	IDENTIFIERS	%	REGULATION (EC) NO. 1272/2008 [CLP]	TYPE
Trisilicon tetranitride	EC: 234-796-8 CAS: 12033-89-5	90-100	Not classified	[A]

There are no additional ingredients present which, within the current knowledge of the supplier, are classified and contribute to the classification of the substance and hence require reporting in this section.

#### Type

[A] Constituent

[B] Impurity

[C] Stabilising additive

Occupational exposure limits, if available, are listed in Section 8.

### SECTION 4: FIRST AID MEASURES

#### 4.1 DESCRIPTION OF FIRST AID MEASURES

**Eye contact** Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.

**Inhalation** Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

**Skin contact** Flush contaminated skin with plenty of water. Get medical attention if symptoms occur.

**Ingestion** Not a likely route of exposure. However if ingestion occurs, seek medical attention.

**Protection of first-aiders** No action shall be taken involving any personal risk or without suitable training.

#### 4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

##### Potential acute health effects

**Eye contact** No known significant effects or critical hazards

**Inhalation** Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

**Skin contact** No known significant effects or critical hazards

**Ingestion** No known significant effects or critical hazards

**SECTION 4: FIRST AID MEASURES, CONTINUED**

**Over-exposure signs/symptoms**

- Eye contact** No known significant effects or critical hazards
- Inhalation** No known significant effects or critical hazards
- Skin contact** No known significant effects or critical hazards
- Ingestion** No known significant effects or critical hazards

**4.3 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED**

**Notes to physician** In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

**Specific treatments** No specific treatment

**SECTION 5: FIREFIGHTING MEASURES**

**5.1 EXTINGUISHING MEDIA**

**Suitable extinguishing media** Use an extinguishing agent suitable for the surrounding fire.

**Unsuitable extinguishing media** None known

**5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE**

**Hazards from the substance or mixture** No specific fire or explosion hazard

**Hazardous combustion products** No thermal decomposition substances are formed.

**5.3 ADVICE FOR FIREFIGHTERS**

**Special protective actions for firefighters** No special measures are required.

**Special protective equipment for firefighters** Wear protective equipment for surrounding fire.

**SECTION 6: ACCIDENTAL RELEASE MEASURES**

**6.1 PERSONAL PRECAUTIONS,  
PROTECTIVE EQUIPMENT AND  
EMERGENCY PROCEDURES**

**For non-emergency personnel** No special protection is required. Do not touch or walk through spilt material.

**For emergency responders** No special protection is required.

**6.2 ENVIRONMENTAL PRECAUTIONS** Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains, and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil, or air).

**6.3 METHODS AND MATERIAL FOR  
CONTAINMENT AND CLEANING UP**

**Spill** Prevent entry into sewers, water courses, basement, or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.

**6.4 REFERENCE TO OTHER SECTIONS** See Section 1 for emergency contact information.  
See Section 8 for information on appropriate personal protective equipment.  
See Section 13 for additional waste treatment information.

**SECTION 7: HANDLING AND STORAGE**

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

**7.1-PRECAUTIONS FOR-SAFE-HANDLING**

**Protective measures** Put on appropriate personal protective equipment (see Section 8).

**Advice on general occupational hygiene** Eating, drinking, and smoking should be prohibited in areas where this material is handled, stored, and processed. Workers should wash hands and face before eating, drinking, and smoking. See also Section 8 for additional information on hygiene measures.

**7.2 CONDITIONS FOR SAFE STORAGE,  
INCLUDING ANY INCOMPATIBILITIES** Store in accordance with local regulations. Keep container tightly closed and sealed until ready for use.

**7.3 SPECIFIC END USE(S)**

**Recommendations** Not available

**Industrial sector specific solutions** Not available

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

### 8.1 CONTROL PARAMETERS

**Occupational exposure limits** No exposure limit value known.

**Recommended monitoring procedures** If this product contains ingredients with exposure limits, personal, workplace atmosphere, or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy); European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents); European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents). Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

**DNELs/DMELs** No DNELs/DMELs available

**PNECs** No PNECs available

### 8.2 EXPOSURE CONTROLS

**Appropriate engineering controls** Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

#### Individual protection measures

**Hygiene measures** Wash hands, forearms, and face thoroughly after handling chemical products, before eating, smoking, and using the lavatory and at the end of the working period.

**Eye/face protection** If cutting, grinding, or crushing this article, wear safety glasses and/or a face shield and employ good management practices consistent with safe machinery operation procedures.

#### Skin protection

**Hand protection** Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

**Body protection** Not required under normal conditions of use

**Other skin protection** Not required under normal conditions of use

**Respiratory protection** Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

**Environmental exposure controls** Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**
**9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES**
**Appearance**

<b>Physical state</b>	Solid
<b>Colour</b>	Dark grey to black
<b>Odour</b>	None
<b>Odour threshold</b>	Not applicable
<b>pH</b>	Not applicable

**Melting point/freezing point** >1800°C

**Initial boiling point and boiling range** Not applicable

**Flash point** Not applicable

**Evaporation rate** Not applicable

**Flammability (solid, gas)** Not applicable

**Upper/lower flammability or explosive limits** Not applicable

**Vapour pressure** Not applicable

**Vapour density** Not applicable

**Relative density** 3.2

**Solubility(ies)** Insoluble in the following materials: cold water and hot water

**Partition coefficient: n-octanol/water** Not available

**Auto-ignition temperature** Not applicable

**Decomposition temperature** Not available

**Viscosity** Not applicable

**Explosive properties** Not available

**Oxidising-properties** Not available

**9.2 OTHER INFORMATION** No additional information

**SECTION 10: STABILITY AND REACTIVITY**

**10.1 REACTIVITY** No specific test data related to reactivity is available for this product or its ingredients.

**10.2 CHEMICAL STABILITY** The product is stable.

**10.3 POSSIBILITY OF HAZARDOUS REACTIONS** Under normal conditions of storage and use, hazardous reactions will not occur.

**10.4 CONDITIONS TO AVOID** None

**10.5 INCOMPATIBLE MATERIALS** Reactive or incompatible with the following materials: oxidising materials.

**10.6 HAZARDOUS DECOMPOSITION PRODUCTS** Under normal conditions of storage and use, hazardous decomposition products should not be produced.

**SECTION 11: TOXICOLOGICAL INFORMATION**

**11.1 INFORMATION ON TOXICOLOGICAL EFFECTS**

<b>Acute toxicity</b>	There is no data available.
<b>Irritation/Corrosion</b>	There is no data available.
<b>Sensitisation</b>	There is no data available.
<b>Mutagenicity</b>	There is no data available.
<b>Carcinogenicity</b>	There is no data available.
<b>Reproductive toxicity</b>	There is no data available.
<b>Teratogenicity</b>	There is no data available.
<b>Specific target organ toxicity (single exposure)</b>	There is no data available.
<b>Specific target organ toxicity (repeated exposure)</b>	There is no data available.
<b>Aspiration hazard</b>	There is no data available.
<b>Information on likely routes of exposure</b>	Inhalation. Ingestion.

**POTENTIAL ACUTE HEALTH EFFECTS**

<b>Eye-contact</b>	No known significant effects or critical hazards
<b>Inhalation</b>	Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
<b>Skin contact</b>	No known significant effects or critical hazards
<b>Ingestion</b>	No known significant effects or critical hazards

**SYMPTOMS RELATED TO THE PHYSICAL, CHEMICAL AND TOXICOLOGICAL CHARACTERISTICS**

<b>Eye contact</b>	No known significant effects or critical hazards
<b>Inhalation</b>	No known significant effects or critical hazards
<b>Skin contact</b>	No known significant effects or critical hazards
<b>Ingestion</b>	No known significant effects or critical hazards

**DELAYED AND IMMEDIATE EFFECTS AS WELL AS CHRONIC EFFECTS FROM SHORT AND LONG-TERM EXPOSURE**

<b>Short term exposure</b>	
<b>Potential immediate effects</b>	No known significant effects or critical hazards
<b>Potential delayed effects</b>	No known significant effects or critical hazards



**SECTION 11: TOXICOLOGICAL INFORMATION, CONTINUED**

**Long term exposure**

**Potential immediate effects** No known significant effects or critical hazards

**Potential delayed effects** No known significant effects or critical hazards

**Potential chronic health effects**

**General** No known significant effects or critical hazards

**Carcinogenicity** No known significant effects or critical hazards

**Mutagenicity** No known significant effects or critical hazards

**Teratogenicity** No known significant effects or critical hazards

**Developmental effects** No known significant effects or critical hazards

**Fertility effects** No known significant effects or critical hazards

**Other information** Not available

**SECTION 12: ECOLOGICAL INFORMATION**

**12.1 TOXICITY** There is no data available.

**12.2 PERSISTENCE AND DEGRADABILITY** There is no data available.

**12.3 BIOACCUMULATIVE POTENTIAL** There is no data available.

**12.4 MOBILITY IN SOIL**

**Soil/water partition coefficient (K<sub>oc</sub>)** Not available

**Mobility** Not available

**12.5 RESULTS OF PBT AND VPVB ASSESSMENT**

**PBT** Not available

**vPvB** Not available

**12.6 OTHER ADVERSE EFFECTS** No known significant effects or critical hazards

**SECTION 13: DISPOSAL CONSIDERATIONS**

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

**13.1 WASTE TREATMENT METHODS**

**Product**

**Methods of disposal** The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

**Hazardous waste** Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 2008/98/EC.

**Packaging**

**Methods of disposal** The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

**Special precautions** This material and its container must be disposed of in a safe way.

**SECTION 14: TRANSPORT INFORMATION**

	ADR/RID	ADN	IMDG	IATA
UN number	Not regulated	Not regulated	Not regulated	Not regulated
UN proper shipping name	-	-	-	-
Transport hazard class(es)	-	-	-	-
Packing group	-	-	-	-
Environmental hazards	No	No	No	No
Additional information	-	-	-	-

**14.6 SPECIAL PRECAUTIONS FOR USER** Transport within users' premises: Always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**SECTION 15: REGULATORY INFORMATION**
**15.1 SAFETY, HEALTH, AND ENVIRONMENTAL REGULATIONS/LEGISLATION SPECIFIC FOR THE SUBSTANCE OR MIXTURE**
**EU Regulation (EC) No. 1907/2006 (REACH)**

**Annex XIV - List of substances subject to authorisation** None of the components are listed.

**Substances of very high concern** None of the components are listed.

**Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles** Not applicable

**Other EU regulations**

**Europe inventory** All components are listed or exempted.

**Ozone depleting substances (1005/2009/EU)** Not listed.

**Prior Informed Consent (PIC) (649/2012/EU)** Not listed.

**Seveso Directive** This product is not controlled under the Seveso Directive.

**National regulations**

**Reinforced medical surveillance** Act of July 11, 1977 determining the list of activities which require reinforced medical surveillance: not applicable

**15.2 CHEMICAL SAFETY ASSESSMENT** This product contains substances for which Chemical Safety Assessments are still required.

**SECTION 16: OTHER INFORMATION**

**Abbreviations and acronyms**

ATE= Acute Toxicity Estimate  
 CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]  
 DMEL = Derived Minimal Effect Level  
 DNEL = Derived No Effect Level  
 EUH statement= CLP-specific Hazard statement  
 PBT = Persistent, Bioaccumulative and Toxic  
 PNEC = Predicted No Effect Concentration  
 RRN = REACH Registration Number  
 vPvB = Very Persistent and Very Bioaccumulative

**Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]**

CLASSIFICATION	JUSTIFICATION
Not classified	-

**Full text of abbreviated H statements** Not applicable

**Full text of classifications [CLP/GHS]** Not applicable

**HISTORY**

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**Prepared by** KMK Regulatory Services Inc.

**Notice to reader** To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Commission Regulation (EU)

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