

# SAFETY DATA SHEET

## 1. PRODUCT AND COMPANY IDENTIFICATION

<b>Product Name:</b>	<b>NanoTech Materials Bleed Blocker</b>
<b>Product Use Description:</b>	Base coat for roofing applications
<b>Chemical Family:</b>	Water-based acrylic coating
<b>Manufacturer:</b>	NanoTech Materials, Inc. 21401 Park Row Drive #360 Katy, TX 77449
<b>Email:</b>	info@nanotechmaterials.com
<b>Telephone:</b>	1-(888) 296-6266

## 2. HAZARDS IDENTIFICATION

### GHS Label Elements

**Hazard Pictograms:**



**Signal Word:** Danger

**Hazard Statements:**

- H317: May cause an allergic skin reaction
- H319: Causes serious eye irritation
- H350: May cause cancer

**Precautionary Statements:**

- P201: Obtain special instructions before use.
- P202: Do not handle until all safety precautions have been read and understood.
- P260: Do not breathe dust/mist/gas/vapors/spray.
- P264: Wash skin and face thoroughly after handling.
- P272: Contaminated work clothing must not be allowed out of the workplace.
- P280: Wear protective gloves/protective clothing/eye protection/face protection.
- P302+P352: IF ON SKIN: Wash with plenty of soap and water.
- P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes; remove contact lenses, if present and easy to do; continue rinsing.
- P308+P313: IF exposed or concerned: Get medical advice/attention.
- P333+P313: If skin irritation or rash occurs: Get medical advice/attention.
- P362+P364: Take off contaminated clothing and wash it before reuse.
- P405: Store locked up.
- P501: Dispose of contents and container in accordance with federal, state, and local regulations.

### Hazard Classification

**GHS classification in accordance with: OSHA (29 CFR 1910.1200, 2012)**

<b>Serious eye irritation:</b>	Category 2A
<b>Skin sensitization:</b>	Category 1
<b>Carcinogenicity:</b>	Category 1A

**Other hazards which do not result in classification**

**Percent of the mixture with unknown acute toxicity:** 24%

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixtures

Hazardous components

Component	CAS-No.	Concentration (% weight)
Aluminum hydroxide	21645-51-2	10 – 20%
Titanium dioxide (Rutile)	13463-67-7	5 – 10%
Biocide	Trade Secret	0.1 – 1%
Ammonium hydroxide	1336-21-6	0.1 – 1%
Crystalline Quartz Silica	14808-60-7	0.1 – 1%

### 4. FIRST-AID MEASURES

Description of necessary first-aid measures

<b>Eye contact:</b>	In case of contact, flush eyes with plenty of lukewarm water. Get medical attention if irritation develops.
<b>Skin contact:</b>	In case of skin contact, wash affected areas with soap and water. Immediately remove contaminated clothing and shoes. Get medical attention if irritation develops and persists.
<b>Inhalation:</b>	If inhaled, remove to fresh air. Get medical attention if irritation develops.
<b>Ingestion:</b>	If ingested, do not induce vomiting unless directed to do so by medical personnel. Get medical attention.
<b>Most important symptoms/effects, acute and delayed:</b>	Causes serious eye irritation with symptoms of reddening, tearing, swelling, and burning. May cause an allergic skin reaction with symptoms of reddening, itching, swelling, and rash.
<b>Indication of immediate medical attention and special treatment needed:</b>	Treat symptomatically. Treatment should be directed at the control of symptoms and the clinical condition of the patient.

### 5. FIRE-FIGHTING MEASURES

<b>General Fire Hazards:</b>	Toxic and irritating gases/fumes may be given off during burning or thermal decomposition. Material will not burn until water has been evaporated.
<b>Suitable (and unsuitable) extinguishing</b>	
<b>Suitable extinguishing media:</b>	All extinguishing media are suitable.
<b>Unsuitable extinguishing media:</b>	No data available.
<b>Specific hazards arising from the chemical:</b>	By thermal decomposition: carbon monoxide, carbon dioxide, acrylic monomers, and other potentially toxic fumes. Material will not burn until water has been evaporated. Containers may rupture on heating.
<b>Special protective equipment and precautions for firefighters</b>	
<b>Special fire-fighting procedures:</b>	Use cold water spray to cool fire-exposed containers to minimize the risk of rupture.
<b>Special protective equipment for fire fighters:</b>	Firefighters should be equipped with self-contained breathing apparatus to protect against potentially toxic and irritating fumes.

## 6. ACCIDENTAL RELEASE MEASURES

<b>Personal precautions, protective equipment and emergency procedures:</b>	Cleanup personnel must use appropriate personal protective equipment. Keep unauthorized personnel away. See Section 8 for Personal Protective Equipment.
<b>Methods and material for containment and cleaning up:</b>	Cover spill with inert material (e.g., dry sand or earth) and collect for proper disposal.
<b>Environmental precautions:</b>	Avoid release to the environment. Do not contaminate water sources or sewers. Prevent further leakage or spillage if safe to do so.

## 7. HANDLING AND STORAGE

<b>Precautions for safe handling:</b>	Avoid breathing dust, vapor, or mist. Avoid contact with skin, eyes, and clothing. Use only with adequate ventilation and personal protection. Wash thoroughly after handling. Keep container closed when not in use.
<b>Conditions for safe storage:</b>	Keep container closed when not in use. Protect from freezing. Store away from incompatible materials.
<b>Storage temperature and shelf life:</b>	Minimum 1 °C (33.8 °F); maximum 49 °C (120.2 °F). Storage period: 12 months.
<b>Incompatible materials:</b>	None known.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### Control Parameters

### Occupational Exposure Limits

<b>Aluminum hydroxide (CAS: 21645-51-2):</b>	ACGIH TWA: 1 mg/m <sup>3</sup> (respirable fraction). ACGIH carcinogenicity: A4 (not classifiable as a human carcinogen).
<b>Titanium dioxide (Rutile) (CAS: 13463-67-7):</b>	ACGIH TWA: 10 mg/m <sup>3</sup> . OSHA PEL: 15 mg/m <sup>3</sup> (total dust). ACGIH carcinogenicity: A4 (not classifiable as a human carcinogen).
<b>Ammonium hydroxide (CAS: 1336-21-6):</b>	ACGIH TWA: 25 ppm; STEL: 35 ppm. OSHA PEL: 50 ppm (35 mg/m <sup>3</sup> ).
<b>Crystalline Quartz Silica (CAS: 14808-60-7):</b>	ACGIH TWA: 0.025 mg/m <sup>3</sup> (respirable fraction). OSHA Table Z-3 limits apply. ACGIH carcinogenicity: A2 (suspected human carcinogen).

<b>Appropriate Engineering Controls:</b>	General dilution and local exhaust as necessary to control airborne vapors, mists, dusts, and thermal decomposition products below appropriate airborne concentration standards/guidelines.
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### Individual protection measures, such as Personal Protective Equipment

<b>General Information:</b>	Use Personal Protective Equipment as required.
<b>Eye/Face Protection:</b>	Splash-proof goggles.
<b>Skin and Hand Protection:</b>	Permeation-resistant gloves. Wear cloth work clothing including long pants and long-sleeved shirts.
<b>Respiratory Protection:</b>	In case of insufficient ventilation, wear suitable respiratory equipment.
<b>Additional Protective Measures:</b>	Emergency showers and eye wash stations should be available. Educate and train employees in the safe use and handling of this product.
<b>Hygiene Measures:</b>	Employees should wash their hands and face before eating, drinking, or using tobacco products. Handle in accordance with good industrial hygiene and safety practices.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical state:</b>	Liquid
<b>Color:</b>	Various
<b>Odor:</b>	Mild, amine
<b>Odor threshold:</b>	No data available
<b>pH:</b>	No data available
<b>Freezing point:</b>	0 °C (32 °F), similar to water
<b>Boiling point:</b>	100 °C (212 °F), similar to water
<b>Flash point:</b>	Not applicable (water-based product); solid material will support combustion if water has been evaporated
<b>Evaporation rate:</b>	No data available
<b>Upper/lower explosive limits</b>	
<b>Explosive limit – upper (%):</b>	No data available
<b>Explosive limit – lower (%):</b>	No data available
<b>Vapor pressure:</b>	17 mmHg @ 20 °C (68 °F), similar to water
<b>Vapor density:</b>	No data available
<b>Specific Gravity:</b>	1.2 – 1.5 (specific gravity)
<b>Solubility(ies)</b>	
<b>Solubility in water:</b>	No data available
<b>Partition coefficient: n-octanol/water:</b>	No data available
<b>Auto-ignition temperature:</b>	No data available
<b>Decomposition temperature:</b>	No data available
<b>Viscosity:</b>	No data available

## 10. STABILITY AND REACTIVITY

<b>Reactivity:</b>	No dangerous reaction known under conditions of normal use.
<b>Chemical stability:</b>	Stable under normal conditions.
<b>Possibility of hazardous reactions:</b>	Hazardous polymerization does not occur.
<b>Conditions to avoid:</b>	Protect from freezing. Avoid excessive heat.
<b>Incompatible materials:</b>	None known.
<b>Hazardous decomposition products:</b>	By thermal decomposition: carbon monoxide, carbon dioxide, acrylic monomers, and other potentially toxic fumes.

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

<b>Skin contact:</b>	Likely route of exposure.
<b>Eye contact:</b>	Likely route of exposure.

**Inhalation:** Likely route of exposure.

**Ingestion:** Likely route of exposure.

**Information on toxicological effects**

**Acute toxicity (oral):** Not classified based on available data. The mixture contains ingredient(s) with unknown acute toxicity (24% of the mixture).

**Acute toxicity (dermal):** Not classified based on available data.

**Acute toxicity (inhalation):** Not classified based on available data.

**Skin corrosion/irritation:** Not classified as a primary skin irritant. Prolonged or repeated contact may cause irritation.

**Serious eye damage/eye irritation:** Causes serious eye irritation (Category 2A).

**Respiratory sensitization:** Not classified.

**Skin sensitization:** May cause an allergic skin reaction (Category 1).

**Specific target organ toxicity – single exposure:** Not classified.

**Specific target organ toxicity – repeated exposure:** Not classified.

**Aspiration hazard:** Not classified.

**Carcinogenicity**

**Classification:** Carcinogenicity, Category 1A (May cause cancer).

**Basis:** Contains crystalline quartz silica (CAS 14808-60-7): IARC Group 1 (carcinogenic to humans); NTP: known human carcinogen. Contains titanium dioxide (CAS 13463-67-7): IARC Group 2B (possibly carcinogenic to humans, inhalable dust).

**Germ cell mutagenicity / reproductive toxicity:** No data available.

**12. ECOLOGICAL INFORMATION**

**Ecology – general:** No data available for the product as a whole. See component data below.

**Ecology – aquatic toxicity:** The product contains a biocide component that is very toxic to aquatic life.

**Eco toxicity**

Fish	
Biocide (isothiazolinone mixture):	LC50: 0.049 mg/l (other fish); LC50: 0.076 mg/l (Rainbow trout ( <i>Oncorhynchus mykiss</i> ), 96 h)
Titanium dioxide (Rutile):	LC0: > 1,000 mg/l (Golden orfe ( <i>Leuciscus idus</i> ), 48 h)
<b>Aquatic invertebrates:</b>	Biocide — EC50: 0.2 mg/l ( <i>Daphnia magna</i> ). Titanium dioxide (Rutile) — EC0: > 3 mg/l ( <i>Daphnia magna</i> ).
<b>Toxicity to microorganisms:</b>	Titanium dioxide (Rutile) — EC0: > 10,000 mg/l ( <i>Pseudomonas fluorescens</i> , 24 h)

**13. DISPOSAL CONSIDERATIONS**

**Waste Disposal Methods:** Waste disposal should be in accordance with existing federal, state, and local environmental control laws. Recondition or dispose of empty containers in accordance with governmental regulations. Do not reuse empty containers without proper cleaning.

## 14. TRANSPORT INFORMATION

<b>DOT:</b>	Not regulated
<b>IMDG:</b>	Not regulated
<b>IATA:</b>	Not regulated
<b>Transport in bulk (MARPOL Annex II / IBC Code):</b>	None known

Shipping descriptions may vary based on mode of transport, quantities, temperature of the material, package size, and/or origin and destination. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

## 15. REGULATORY INFORMATION

### U.S. Federal Regulations

- **TSCA Section 8(b) Inventory:** All components are listed on the TSCA Inventory.
- **SARA 311/312 Hazard Categories:** Acute (immediate) health hazard; Chronic (delayed) health hazard.
  - **SARA 302 Extremely Hazardous Substance:** None
  - **SARA 304 Emergency Release Notification:** None
  - **SARA 311/312 Hazardous Chemical:** Yes
  - **SARA 313 (TRI Reporting):** Contains 1,3-benzenedicarbonitrile, 2,4,5,6-tetrachloro- (supplier notification required).

This product may contain chemical(s) regulated under the Superfund Amendments and Reauthorization Act (SARA). For additional information, please contact NanoTech Materials, Inc. directly.

### U.S. State Regulations

- **U.S. California Proposition 65:** WARNING: This product can expose you to chemicals including titanium dioxide and crystalline (respirable) silica, which are known to the State of California to cause cancer and developmental/reproductive toxicity. For more information, go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

### State Right to Know Components

Component	CAS No.	State Listings
Limestone (Calcium carbonate)	1317-65-3	New Jersey, Massachusetts, Pennsylvania
Aluminum hydroxide	21645-51-2	New Jersey, Massachusetts, Pennsylvania
Crystalline Quartz Silica	14808-60-7	New Jersey, Massachusetts, Pennsylvania
Ammonium hydroxide	1336-21-6	New Jersey
Zinc Oxide	1314-13-2	New Jersey

### Inventory Status

- **United States (TSCA):** All components of this product are on the TSCA inventory.

The information that was used to confirm the compliance status of this product may deviate from the chemical information shown in Section 3.

## 16. OTHER INFORMATION

<b>Source of Information:</b>	Internal company data, suppliers, and other publicly available resources.
<b>Further Information:</b>	Contact supplier (see Section 1). More resources are available at <a href="http://nanotechmaterials.com">nanotechmaterials.com</a> .

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