

## SAFETY DATA SHEET

Product: NanoTech Fabric Coating  
Revision Date: November 2025  
Version No.: 1.0

### SECTION 1 – IDENTIFICATION

Product Name: NanoTech Fabric Coating  
Synonyms: Water-borne thermal and fire-resistant polymer coating  
Recommended Use: Heat- and flame-resistant surface coating for textiles, composites, and industrial fabricsx  
Restrictions on Use: Not for consumer aerosol application; avoid atomized spraying without ventilation Manufacturer / Supplier: NanoTech Materials  
Emergency Number: CHEMTREC 1-800-424-9300 (24 h US)

### SECTION 2 – HAZARD IDENTIFICATION

Classification (GHS / OSHA 29 CFR 1910.1200):

| Property                 | Value / Description   |
|--------------------------|---|
| Eye Irritation           | Category 2B   |
| Skin Irritation          | Category 3  |
| Aquatic Chronic Toxicity | Category 3 (due to zinc pyrithione)<br>Signal Word: Warning |

Hazard Statements:



| Property | Value / Description                                |
|----------|--|
| H316     | Causes mild skin irritation.                       |
| H320     | Causes eye irritation.                             |
| H412     | Harmful to aquatic life with long-lasting effects. |

Precautionary Statements:

| Property | Value / Description   |
|----------|---|
| P264     | Wash hands and exposed skin after handling.                   |
| P273     | Avoid release to the environment.                             |
| P280     | Wear protective gloves and eye protection during application. |

Precautionary Statements (Continued):

| Property             | Value / Description  |
|----------------------|--|
| P305<br>P351<br>P338 | If in eyes: rinse cautiously with water for several minutes; remove contact lenses if present. |
| P332<br>P313         | If skin irritation occurs: get medical advice.   |

GHS Pictograms:  (Exclamation mark)  (Environment symbol)

### SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

| Component                                     | CAS No.            | Approx. Wt % Range | GHS Classification                    |
|---|--------------------|--------------------|---------------------------------------|
| Water   | 7732-18-5          | 20-30%             | Not classified                        |
| Carboset RPT 3030<br>(Acrylic Resin Emulsion) | Proprietary        | 40-55%             | Non-hazardous polymer                 |
| Ammonium Polyphosphate                        | 68333-79-9         | 5-10%              | Not classified (Fire retardant salt)  |
| Glass Microspheres                            | 68189-16-2 / 65997 | 5 – 10 %           | Not classified                        |
| Pentaerythritol                               | 115-77-5           | 2 – 6 %            | Not classified                        |
| Titanium Dioxide                              | 13463-67-7         | 0.5 – 2 %          | Carc. 2 (respirable dust only)        |
| Dispersant (nonionic surfactant blend)        | Proprietary        | 0.5 – 1.5 %        | Eye Irrit. 2B                         |
| Defoamer (silicone emulsion)                  | Proprietary        | 0.5 – 1.5 %        | Not classified                        |
| Thickener (cellulosic / acrylic)              | Proprietary        | 0.5 – 1 %          | Not classified                        |
| Zinc Pyrithione (Biocide)                     | 13463-41-7         | 0.2 – 0.6 %        | Acute Aquatic 1;<br>Chronic Aquatic 1 |

### SECTION 4 – FIRST-AID MEASURES

|                         |  |
|-------------------------|--|
| Inhalation              | Move to fresh air. Seek medical attention if symptoms persist.   |
| Skin Contact            | Wash with soap and water. Remove contaminated clothing. If irritation develops, get medical advice.                    |
| Eye Contact             | Rinse cautiously with water for several minutes. Remove contact lenses. Seek medical attention if irritation persists. |
| Ingestion               | Rinse mouth. Do not induce vomiting. Seek medical attention if large quantities ingested.                              |
| Most important symptoms | Eye and skin irritation possible from surfactants and biocide.   |

## SECTION 5 – FIRE-FIGHTING MEASURES

|                              |   |
|------------------------------|---|
| Suitable Extinguishing Media | Water spray, foam, dry chemical, CO <sub>2</sub>  |
| Specific Hazards             | Dry residue may emit ammonia and phosphorus oxides on decomposition. Protective Equipment: Self-contained breathing apparatus for firefighters. |

## SECTION 6 – ACCIDENTAL RELEASE MEASURES

Contain spill. Absorb with inert material (earth, sand).

Avoid discharge to drains.

Clean area with water.

Wear appropriate PPE (eye protection, gloves).

## SECTION 7 – HANDLING AND STORAGE

Handle in well-ventilated areas.

Avoid aerosol generation.

Store in closed containers at 5 - 35 °C.

Protect from freezing and direct sunlight.

Keep out of reach of children.

## SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

| Substance         | Limit                             | Source             |
|-------------------|-----------------------------------|--------------------|
| Titanium Dioxide  | 10 mg/m <sup>3</sup> (total dust) | OSHA PEL (8 h TWA) |
| Calcium Carbonate | 15 mg/m <sup>3</sup> (total dust) | OSHA PEL           |
| Amorphous Silica  | 10 mg/m <sup>3</sup> (TWA)        | ACGIH TLV          |

|                      |   |
|----------------------|---|
| Engineering Controls | Local exhaust ventilation recommended during spray application.           |
| Personal Protection  | Safety glasses / goggles, chemical-resistant gloves, protective clothing. |
| Respiratory          | Not needed under normal conditions; use NIOSH P95 mask for spray mist.    |

## SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

| Property               | Typical Value / Range             |
|------------------------|-----------------------------------|
| Appearance             | White to off-white viscous liquid |
| Odor                   | Mild acrylic / ammonia            |
| pH                     | 7 – 8.5                           |
| Melting/Freezing Point | ≈ 0 °C (water base)               |
| Boiling Point          | ≈ 100 °C                          |
| Flash Point            | > 93 °C (non-flammable)           |
| Density                | 1.05 – 1.15 g/mL                  |
| Solubility             | Dispersible in water              |
| VOC Content            | < 25 g/L                          |
| Viscosity              | 5 000 – 15 000 cP                 |

## SECTION 10 – STABILITY AND REACTIVITY

|                        |  |
|------------------------|--|
| Stability              | Stable under normal use conditions.                                      |
| Hazardous Reactions    | None known.  |
| Decomposition Products | CO <sub>2</sub> , CO, NH <sub>3</sub> , Phosphorus Oxides, Metal Oxides. |
| Incompatible Materials | Strong acids and bases; oxidizers.                                       |

## SECTION 11 – TOXICOLOGICAL INFORMATION

|                           |   |
|---------------------------|---|
| Likely Routes of Exposure | Inhalation of mist, skin contact, eye contact.                                  |
| Acute Toxicity            | Low oral and dermal toxicity (expected LD <sub>50</sub> > 2 000 mg/kg).         |
| Skin/Eye Effects          | Mild irritation possible.   |
| Sensitization             | Not expected under normal handling.   |
| Carcinogenicity           | Titanium dioxide classified Carc. 2 only when airborne, unbound and respirable. |
| Chronic Effects           | No known systemic effects at use levels.  |

## SECTION 12 – ECOLOGICAL INFORMATION

|                             |   |
|-----------------------------|---|
| Ecotoxicity                 | Zinc pyrithione is toxic to aquatic organisms (LC <sub>50</sub> fish ≈ 0.1 mg/L). |
| Persistence / Degradability | Polymer and inorganics are largely non-biodegradable but environmentally stable.  |
| Bioaccumulation             | Not expected for major components.  |
| Mobility                    | Water-borne material may disperse in surface runoff if released.                  |

## SECTION 13 – DISPOSAL CONSIDERATIONS

Dispose of in accordance with local regulations. Do not pour into drains.

Residues may be classified as non-hazardous solid waste under RCRA unless contaminated.

Empty containers should be rinsed and recycled where possible.

## SECTION 14 – TRANSPORT INFORMATION

| Mode        | UN Number     | Proper Shipping Name                   | Class | Packing Group | Comments                                       |
|-------------|---------------|--|-------|---------------|--|
| DOT (US)    | Not regulated | Not regulated (non-flammable, aqueous) | -     | -             | Non-hazardous for transport                    |
| IMDG / IATA | Not regulated | Not regulated (non-flammable, aqueous) | -     | -             | Avoid spillage to marine waters (zinc content) |

## SECTION 15 – REGULATORY INFORMATION

|                    |  |
|--------------------|--|
| U.S. TSCA          | All components listed or exempt.   |
| REACH (EU)         | All components registered or covered by existing registration.               |
| California Prop 65 | Titanium dioxide (listed only when airborne, unbound, respirable).           |
| RCRA               | Not a listed hazardous waste.  |
| SARA 313           | Contains zinc compound (< 0.3 %), reportable only if annual use > threshold. |
| WHMIS (Canada)     | Not controlled / irritant classification possible.                           |

## SECTION 16 – OTHER INFORMATION

Abbreviations:

|            |  |
|------------|--|
| U.S. TSCA  | Toxic Substances Control Act   |
| REACH (EU) | Registration, Evaluation, Authorisation and Restriction of Chemicals |
| SDS        | Safety Data Sheet  |
| GHS        | Globally Harmonized System   |

Preparation Date: November 3, 2025

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Disclaimer: This information is believed to be accurate as of the revision date but is not warranted. It applies only to the product as formulated and not to any use combination or process not specified. User assumes all risk of use and compliance with applicable laws.