

SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Cool Roof Coat

Product Use Description: Acrylic coating that provides a thermal barrier for roofs

Chemical Family: White elastomeric coating

Trade Name: Nano Shield Cool Roof Coating

Material Number: 2022001

Manufacturer: NanoTech Materials, Inc.
 21401 Park Row Drive #360
 Katy, TX 77449

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2. HAZARDS IDENTIFICATION

GHS Classification

Carc. 2

GHS Label Elements

Hazard Pictograms:



Signal Word: Warning

Hazard Statements: (GHS-US):H351 - Suspected of causing cancer.

Precautionary Statements

Prevention: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required.
 Wear protective gloves and eye protection. If exposed or concerned: Get medical advice/attention. Store locked up.

Disposal: Dispose of contents/container to a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as non-hazardous waste.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture: Acrylic emulsion mixture

Substance Name: Roof Coating

CAS number	Components	% by Mass
Not classified	Water based resin	15-50
1309-48	Inorganic semiconductors	2 to 20

598-62-9	Carbonate	10 to 50
7732-18-5	Water	10 to 50
Not classified	Nano Shield powder	2 to 20
1346-67-7	Alumina	5 to 20
N / A	Inert pigment	5 to 30
Not classified	Thickener	0.5 to 3.3
Not classified	Defoamer	0.1 to 2.6
Not classified	Dispersant	0.1 to 3.7

4. FIRST-AID MEASURES

Description of first aid measures

- First-aid measures general:** Seek medical attention immediately. If you feel unwell after in contact with this product. When seeking medical advice show the medical practitioner the product label if possible. If exposed or concerned: Obtain medical advice/attention immediately.
- First-aid measures after inhalation:** Remove person to fresh air and keep comfortable for breathing. Ensure fresh air breathing.
- First-aid measures after skin contact:** Wash with water and soap. Rinse with water. Wash skin with plenty of running water.
- First-aid measures after eye contact:** Obtain medical attention if pain, excessive blinking, or redness persists. Direct contact with the eyes is likely to be irritating. Rinse eyes with water as a precaution.
- First-aid measures after ingestion:** Drink plenty of water. Get medical advice/attention. Call a poison center or a doctor if you feel unwell.

Most important symptoms and effects (both acute and delayed)

- Symptoms/injuries:** Not expected to present a significant hazard under anticipated conditions of normal use.
- Symptoms/injuries after skin contact:** May cause moderate irritation.
- Symptoms/injuries after eye contact:** Irritation of the eye tissue.
- Symptoms/injuries after ingestion:** No data available.
- Chronic symptoms:** No effects known.

5. FIRE-FIGHTING MEASURES

Product not combustible.

Extinguishing Media

- Suitable Extinguishing Media:** Carbon dioxide, dry chemical, foam, water spray, fog.
- Explosion Hazard:** Vapors are heavier than air and may travel along the ground to an ignition source some distance from material handling point. Ignition sources include pilot lights, smoking, heaters, electric motors, sparks from electrical switches, and static discharges.

- CAUTION:** Never use cutting torch on empty containers. Residual solvent vapor in empty containers may ignite or explode. Any application to hot surfaces requires special precautions. During emergency conditions, overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent. Obtain medical attention.

Hazardous Combustion Products: Carbon oxides (CO, CO₂). Oxides of aluminum. Oxides of titanium.
Reference to Other Sections: Refer to section 9 for flammability properties.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Handle in accordance with good industrial hygiene and safety practice.
For Non-Emergency Personnel: Evacuate and isolate the area and prevent access. Remove ignition sources. No flames, smoking or flares in hazard area. Notify management. Avoid breathing vapor or mist and put on protective equipment. Control source of the leak.
For Emergency Personnel: See Section 8 for any specialized clothing recommendations.

Methods and material for containment and cleaning up: For Containment: Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Absorb and/or contain spill with inert material.
Methods for Cleaning Up: Clear up spills immediately and dispose of waste safely.

Environmental Precautions: Prevent entry to sewers and public waters.

7. HANDLING AND STORAGE

Precautions for Safe Handling: Harmful or irritating material. Avoid contacting and avoid breathing the material. Use only in a well-ventilated area. As with all chemicals, good industrial hygiene practices should be followed when handling this material. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling.

Conditions for Safe Storage: Store in a cool dry place. Keep container(s) closed.

Materials to Avoid: Oxidizing agents.

Incompatibility:

Maximum Handling Temperature: Not determined.

Conditions for Safe Storage, Including Any Incompatibilities: Technical measures: Comply with applicable regulations.
Storage conditions: Keep container closed when not in use. Store locked up. Store in a well-ventilated place. Keep cool.
Incompatible products: Strong bases. Strong acids.

Storage Temperature: 5 - 38 °C

Storage Area: Keep only in the original container. Protect against frost.

Special Rules on Packaging: Keep only in original container. Meet all legal requirements.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control Parameters: Not applicable.

Engineering Measures: Not applicable.

Personal Protection

Appropriate engineering controls: Ensure good ventilation of the workstation.

Recommended clothing - Skin Protection: Gloves, long-sleeved shirt, and boots to prevent contact.

Breath protection: Ventilation and dust mask are recommended when applying.

Hand protection:	Gloves - Recommended Use.
Eye Protection - Face:	Recommended wearing glasses.
Respiratory protection:	In case of insufficient ventilation, wear suitable respiratory equipment.
Environmental exposure controls:	Avoid release to the environment.
Other protective equipment:	Not required.
Thermal Dangers:	Not applicable.
Other information:	Do not eat, drink, or smoke during use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Color:	Light beige
Appearance:	Emulsion
Aspect:	White or slightly beige.
Odor:	There is no predominant odor.
pH:	Not applicable.
Fusion point:	Not applicable.
Freezing point:	0°C
Initial boiling point:	100°C
Evaporation Rate:	<1
Flash point:	Not applicable.
Flammability:	Nonflammable.
Lower / Upper Flammability and Explosive Limits:	Not applicable.
Vapor pressure:	No data available.
Vapor density:	(Ar = 1) 3 para 4
Relative density:	Between 1,100 e 1,600 kg/m ³ (Between 1.1 e 1.6 g/cm ³ density) a 15°C
Non-volatile solids:	> 60%
Solubility in water:	Soluble in water.
Auto-ignition temperature:	Not applicable.
Decomposition Temperature:	> 150°C
Viscosity:	40,000 – 50,000 cP

10. STABILITY AND REACTIVITY

Reactivity:	Reacts at ambient temperatures and above 100°C.
Chemical Stability:	Stable at room temperature.
Possibility of Hazardous Reactions:	Not applicable.
Conditions to Avoid:	Direct incidence of heat upon storage. Provide minimal natural ventilation of the environment.
Incompatible Materials:	Not applicable.

Unconcentrated acids and bases, dilute acid atmosphere: Not applicable.

Hazardous Decompositions Products: Not applicable.

11. TOXICOLOGICAL INFORMATION

Acute toxicity: Not applicable.

Skin corrosion / irritation: Skin contact may cause mild irritation.

Serious eye damage / eye irritation: Does not cause serious eye damage. Direct contact with eyes may cause irritation.

Respiratory or skin sensitization: Not applicable.

Germ cell mutagenicity: Not applicable.

Carcinogenicity: Not applicable.

Reproductive toxicity: Not applicable.

Specific target organ toxicity - single exposure: Not applicable.

Specific target organ toxicity - repeated exposure: Not applicable.

Aspiration hazard: No inhalation hazards.

Component Toxicology Data

Chemical Component	Oral LD50	Dermal LD50	Inhalation LC50
Inorganic semiconductors	Oral LD50 Rat > 25,000 mg/kg	Dermal LD50 Rabbit > 10,000 mg/kg	Inhalation LC50 (4h) Rat > 6.82 mg/L

12. ECOLOGICAL INFORMATION

ECOLOGY – GENERAL: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.

ECOLOGY – WATER: Very toxic to aquatic life with long lasting effects.

Eco toxicity: Not applicable.

Persistence and degradability: Not applicable.

Bio accumulative potential: Not applicable.

Soil Mobility: Not applicable.

Other adverse effects: Not applicable.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods: Dispose of contents/container in accordance with licensed collector's sorting instructions.

Waste Disposal Recommendations: Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to avoid release to the environment. Do not discharge into drains or the environment. Do not discharge into the sewer.

Ecology – Waste Materials: Avoid release to the environment.

Recommended Methods for Final Destination:

Residues of this material do not constitute a hazard. It must be disposed of in an appropriate place. It should not be incinerated in sealed packaging.

14. TRANSPORT INFORMATION

Land: It does not require specific regulation. It can be transported as a common cargo.
Hydro Ways: It does not require specific regulation. It can be transported as a common cargo.
Air: It does not require specific regulation.

15. REGULATORY INFORMATION

Specific health and environmental safety regulations for the chemical: Not applicable.

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Important information, but not specifically described in previous sections: Not applicable.
References: Not applicable.
Further Information: Note on the Chemical Weapons convention (CWC) Toxic Chemicals and Precursors List.
None Known.