

TF SERIES RF ABSORBERS

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SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product Name: TF Series RF Absorbers
Product Identifier: 3PB Solutions PNs Leading with AR-###-TF where ### is the tuned frequency in GHz.
(i.e. ### = 5.8 = 5.8 GHz)

Recommended Use: Magnetic powder loaded radio frequency (RF) and microwave absorber.
For commercial use only.

Supplier Name: 3PB Solutions LLC
Supplier Address: 8833 Production Avenue
San Diego, CA 92121
Supplier Phone: (855)785-5660

Emergency Phone: (800)424-9300 (24-hour line)

Issue Date: 9/1/2025
Supersedes Date: New issue

SECTION 2: Hazards Identification

Classification: No hazards present. This material is not classified as a hazardous material per the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS), which is aligned with the OSHA Hazard Communication Standard (HCS).

Label Elements:

Symbols:
None.

Signal Words:
None.

Hazard Statements:
None.

Precautionary Statements:
Do not handle until all safety precautions have been read and understood.
Avoid breathing dust/fume/gas/mist/vapors/spray.
If inhaled high concentrations of airborne dust may irritate the respiratory tract.
If in eyes contact with airborne dust may cause irritation. Rinse cautiously with water.
If eye irritation persists remove contact lenses, if present and easy to do. Continue rinsing.
Store in a dry place.
In case of fire, use dry chemical, foam, or water spray for extinction.

Other Hazards: Dust from this product may be harmful if inhaled. Abrasion of particles may cause eye, skin, and respiratory tract irritation. Ingestion may cause gastric disturbances. High-heat processing may liberate toxic gases.

Eye Contact: Contact with dust may cause irritation to the eyes. Symptoms may include redness, watering, itching, or a burning sensation in the eyes.

Skin Contact: Contact with dust does not generally cause skin irritation.

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Inhalation: High concentrations of airborne dust may irritate the respiratory tract, including the nose, throat, and lungs. Symptoms may include coughing, nausea, headaches, or dizziness.

Ingestion: Ingestion may cause irritation to the gastrointestinal tract but is unlikely to occur in industrial or commercial use.

Chronic Exposure: Long-term inhalation of iron dust particles results in siderosis, a benign pneumoconiosis.

SECTION 3: Composition/Information on Ingredients

Chemical Name	CAS Number	Weight %
Iron Powder	7439-89-6	65-88%
Polydimethylsiloxane	63148-62-9	10-23%
Mg(OH) ₂	01309-42-8	1-9%
Carbonic acid calcium salt	471-34-1	1-2%
Peroxide, bis(1-methyl-1-phenylethyl)	80-43-3	<1%

This article is cured solid and does not pose hazards under normal use

SECTION 4: First-aid Measures

General First Aid: Check the vital functions. Unconscious: maintain adequate airway and respiration. Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: perform resuscitation. Victim conscious with labored breathing: half-seated. Victim in shock: on his back with legs slightly raised. Vomiting: prevent asphyxia/aspiration pneumonia. Prevent cooling by covering the victim (no warming up). Keep watching the victim. Give psychological aid. Keep the victim calm, avoid physical strain. Depending on the victim's condition: doctor/hospital.

Eye Contact: Immediately flush eyes with plenty of water. Remove contact lenses. Flush with water for at least 15 minutes while occasionally lifting lower and upper eyelids. If irritation persists seek medical attention.

Skin Contact: Wash material from the skin thoroughly with soap and water. If irritation persists seek medical attention.

Inhalation: Remove to fresh air and rest in half-upright position. If breathing is difficult administer oxygen. Never give anything by mouth to an unconscious person. Get medical attention if symptoms develop.

Ingestion: If conscious, immediately rinse mouth and give large amounts of water to drink. Never give anything by mouth to an unconscious person. Seek immediate medical attention.

Physician Notes: High heat processing of this product may liberate thermal decomposition gases, which when inhaled can result in polymer fume fever. This condition is characterized by influenza-type symptoms (fever, cough, and malaise), which usually occurs within a few hours and resolves within 48 hours. Following severe exposure the patient should be kept under medical surveillance for at least 48 hours since delayed pulmonary edema may develop.

Chronic Exposure: Long-term inhalation of iron dust particles results in siderosis, a benign pneumoconiosis.

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SECTION 5: Firefighting Measures

- Suitable Extinguishing Media:** Use dry chemical, alcohol-resistant foam, or broad water spray.
- Unsuitable Extinguishing Media:** Do not use carbon dioxide (CO₂), if possible.
- Specific Fire Hazards:** High heat processing of this product may liberate thermal decomposition gases, which when inhaled can result in polymer fume fever.
- Special Protective Equipment:** Use self-contained breathing apparatus with full face piece operated in pressure mode and protection for skin. Keep containers cool with water spray, if possible.

SECTION 6: Accidental Release Measures

- Personal Precautions:** None.
- Protective Equipment:** None.
- Emergency Procedures:** None.
- Containment Techniques:** Solid material is generally not a spill concern; however, dust particles from this material may be applicable to spill containment. Restrict area where spill occurred. Tarp spilled material if outdoors to prevent wind dispersion of particles until clean-up can occur.
- Environmental Precautions:** Avoid discharge of particles into drains/surface waters/groundwater.
- Methods for Cleaning-up:** Refer to Section 8, below, for exposure controls. Restrict area and ensure adequate ventilation. Dampen and gently sweep spilled material. Mechanically pick up dampened material and dispose of. Mop or wipe residual from surface using water.

SECTION 7: Handling and Storage

- Safe Handling:** Use proper personal protective equipment when handling (See Section 8, below). Avoid formation and inhalation of dust particles. Do not eat, drink, or smoke when using this product. Use only in a well-ventilated area. Wash thoroughly with soap and water after handling.
- Storage Conditions:** Store in a cool, dry area away from heat, sparks, open flames, or other sources of ignition.

SECTION 8: Exposure Controls/Personal Protection

- Control Parameters:** Not defined.
- Engineering Controls:** Provide local exhaust ventilation in processes to capture dust or thermal decomposition gases at their source.
- Individual Protection Measures:** Personal Protective Equipment (PPE), below:

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Eyes and Face: Use tightly-fitting safety goggles when dust and thermal decomposition gases may be present.

Skin: If exposure to sanding dust is expected, use nitrile rubber gloves on hands and wear additional impervious clothing as appropriate to protect skin.

Respiratory: In the event that overexposure cannot be avoided, a full-face respirator with cartridges approved by NIOSH when dust exposure levels are known to be within the unit's capability. Use a positive-pressure, air-supplied respirator if exposure levels are not known or where purifying respirators may not provide adequate protection for thermal decomposition products.

SECTION 9: Physical and Chemical Properties

Appearance:	Physical State: Solid, Color: Medium Gray
Odor:	Characteristic of Silicone Rubber
Odor Threshold:	Not determined
pH:	Not determined
Melting Point:	Not determined
Freezing Point:	Not determined
Initial Boiling Point:	Not determined
Boiling Range:	Not determined
Flash Point:	Not determined
Evaporation Rate:	Not determined
Flammability:	Not determined
Upper Flammability Limit:	Not determined
Lower Flammability Limit:	Not determined
Vapor Pressure:	Not determined
Relative Density:	~2.930 to ~4.470
Solubility:	Insoluble
Partition Coefficients:	Not determined
Auto-Ignition Temp.:	Not determined
Decomposition Temp.:	Not determined
Viscosity:	Not determined

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SECTION 10: Stability and Reactivity

Reactivity: This product is not reactive under ordinary conditions of use and storage.

Chemical Stability: This product is stable under ordinary conditions of use and storage.

Possibility of Hazardous Reactions: Hazardous polymerization will not occur under ordinary conditions of use and storage.

Conditions to Avoid: Avoid storage under heat and by flames, ignition sources and incompatibles. Avoid exposure to temperatures above 250°C.

Incompatible Materials: Avoid contact or contamination with strong oxidizers and acids and molten alkali metals.

Hazardous Decomposition Products: Thermal breakdown of this product during fire or very high heat conditions may evolve the following hazardous decomposition products: Nitrogen oxides, metal oxides, formaldehyde, silicone dioxide, and carbon oxides.

SECTION 11: Toxicological Information

Skin corrosion/irritation:	Not classified
Serious eye damage/irritation:	Not classified
Respiratory or skin sensitization:	Not classified
Germ cell mutagenicity:	Not classified
Carcinogenicity:	Not classified
Reproductive toxicity:	Not classified
Specific target organ toxicity:	Not classified
Aspiration hazard:	Not classified
Inhalation effects:	Not classified
Skin contact effects:	Not classified
Eye contact effects:	Not classified
Ingestion effects:	Not classified
Chronic symptoms:	Long-term inhalation of iron dust particles results in siderosis, a benign pneumoconiosis.

SECTION 12: Ecological Information

Ecotoxicity: Not determined

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Persistence:	Not determined
Degradability:	Not determined
Bioaccumulative Potential:	Not determined
Soil Mobility:	Not determined
Other Adverse Effects:	Not determined

SECTION 13: Disposal Considerations

Waste Disposal: Dispose of absorbed material in accordance with all federal, state, and local regulations. Dispose of contaminated water in a contained waste treatment system.

SECTION 14: Transport Information

DOT Classification:	Not regulated
Air Transportation:	Not regulated
Environmental Hazard:	Not determined
Transport in Bulk:	Not regulated
Special Precautions:	None

SECTION 15: Regulatory Information

State and local definitions may vary. If identified components of this product are listed under the TSCA 12(b) Export Notification rule, they will be listed below.

State Reporting

CA Prop 65: This material is not known to contain a chemical substance known to the State of California to cause cancer, reproductive, or developmental toxicity under California Proposition 65. However, 3PB Solutions LLC has not tested for the presence of listed chemical substances.

California SCAQMN Rule 443.1 VOC's: No VOCs

FDA: Not listed

USDA: Not listed

EPA: Not listed

Status on Substance Lists: The concentrations shown are maximum or ceiling levels (weight %) to be used for calculations for regulations.

C.H.I.P. Regulations: None

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Inventory Status:	The ingredients of this product are listed on, or are exempt from listing, on the TSCA inventory.
MA Right to Know:	This product contains the following chemicals on the Massachusetts Right to Know Law: None.
Clean Air Act:	Hazardous Air Pollutants (HAPs): None.
Other Regulatory Info:	None

SECTION 16: Other Information

Revision Information: New issue.

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