

SAFETY DATA SHEET

Section 1. Chemical Product & Company Identification

TITAN INDUSTRIAL CHEMICALS, LLC P.O.BOX 635 GROVER, MO. 63040
636-273-9033

Product Name: **METAL SHIELD PLUS**
 Product Use: **FLOOR FINISH**
 Product Code: **44123**
EMERGENCY NUMBER: INFOTRAC 1-800-535-5053

Section 2. Hazards Identification

Physical Hazards: This chemical does not meet the hazardous criteria set forth by the 2012 OSHA Hazard Communication Standard (29CFR 1910.1200). However, this Safety Data Sheet contains valuable information critical to the safe handling and proper use of this product.

This product contains no substances which, at their given concentration, are considered to be hazardous to health.

OSHA Defined Hazards: None
 Label Elements: None required.
 Signal Word: None required.
 Other Hazards: Harmful to aquatic life. Harmful to aquatic life with long lasting effects.

Section 3. Composition/Information on Ingredients

<u>Chemical Name</u>	<u>CAS Number</u>	<u>% by Weight</u>
Tributoxyethyl phosphate	78-51-3	1-5
Glycol ether TPM	25498-49-1	1-5
Di(ethylene glycol) ethyl ether	111-90-0	1-5
Dipropylene Glycol Monomethyl Ether (DPM)	34590-94-8	1-5

Due to Trade Secret, the exact percentage of composition has been stated as a range. The exact identities of other ingredients has also been withheld as Trade Secret. However, they do not contribute to the identified hazards of the product and will be divulged to proper authorities in an emergency.

Section 4. First Aid Measures

Eye Contact: Rinse thoroughly with plenty of water for at least 15 minutes, lifting upper and lower lids. Get medical advice/attention.

Skin Contact: Wash with plenty of water. If skin irritation occurs: get medical advice/attention. Take off contaminated clothing and wash it before reuse.

Inhalation: Move to fresh air. Call a physician if symptoms develop or persist.

Ingestion: Rinse mouth with water and drink plenty of water.

Most Important Symptoms/Effects, Acute & Delayed: Eye itching, stinging, redness, tearing. Skin redness, itching.

Indication of Immediate Medical Attention & Special Treatment Needed: Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

Section 5. Fire Fighting Measures

Suitable Extinguishing Media: Water fog. Foam. Dry chemical powder. Carbon dioxide.

Specific Hazards Arising From the Chemical: During fire, gases hazardous to health may be formed.

Special Protective Equipment and Precautions for Firefighters: Self-contained breathing apparatus and full protective clothing.

Fire Fighting Equipment/Instructions: Move containers from area if you can do so without risk.

Specific Methods: Use standard firefighting procedures and consider the hazards of other involved materials.

General Fire Hazards: No unusual fire or explosion hazards noted.

Section 6. Accidental Release Measures

Personal Precautions, Protective Equipment & Emergency Procedures: Keep unnecessary personnel away. Keep people away from and upwind of spill. Keep out of low areas. Wear appropriate protective equipment and clothing during clean up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained.

Methods & Materials for Containment & Cleaning Up: This product is miscible in water. Large spills: stop the flow of material, if this is without risk. Dike the spilled material, where possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water. Small spills: wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spilled material to original container.

Environmental Precautions: Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

Section 7. Handling and Storage

Precautions for Safe Handling: Do not get in eyes, on skin, or on clothing. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

Conditions for Safe Storage, including any Incompatibilities: Store in original tightly closed container. Store away from any incompatible materials (see sec. 10).

Section 8. Exposure Controls/Personal Protection

Occupational Exposure Guidelines:

Dipropylene Glycol Monomethyl Ether

ACGIH TLV STEL 150ppm, TWA 100ppm S*

OSHA PEL TWA 100ppm, TWA 600mg/m³ (vacated), TWA 600mg/m³ (vacated), STEL 150ppm (vacated), STEL 900 mg/m³ (vacated) S*

S*

NIOSH IDLH: IDLH 600ppm, TWA 100ppm, TWA 600mg/m³, STEL 150ppm, STEL 900mg/m³

Appropriate Engineering Controls: Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product. It is recommended that users of this product perform a risk assessment to determine the appropriate PPE.

Individual Protection Measures, Personal Protective Equipment:

Eye/Face: Wear eye protection and face protection.

Skin/Body: Wear chemical resistant gloves.

Respiratory: No special protective equipment is needed under normal use conditions.

General Hygiene Considerations: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothes and protective equipment to remove contaminants.

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Section 9. Physical & Chemical Properties

Appearance: Milky-white liquid

Physical State : Liquid

pH: 8-9

Boiling Point: >212 F

Vapor Pressure: Unknown

Melting Point/Freeze Point: Unknown

Evaporation Rate: Not available

Upper Flammability Limit: Not available

Explosive Properties: Not available

Water Solubility: Soluble

Decomposition Temperature: Not available

Oxidizing Properties: Not an oxidizer.

Color: Milky white

Odor: Chemical

Odor Threshold: Not available

Specific Gravity: 1.027

Flash Point: >200 F.

Flammability (solid, gas): Non-flammable

Lower Flammability Limit: Not available

Vapor Density: Not available

Auto-Ignition Temperature: Not available

Viscosity: Water-like

Other Solubilities: Not available

Section 10. Stability & Reactivity

Reactivity: Not reactive under normal conditions.

Chemical Stability: Stable under normal conditions.

Possibility of Hazardous Reactions: Hazardous polymerization does not occur.

Conditions to Avoid: Do not mix with other chemicals. Avoid contact with incompatible materials.

Incompatibility: Strong acids.

Hazardous Polymerization: Will not occur.

Hazardous Decomposition Products: Irritating and/or noxious fumes and gases may be emitted upon decomposition.

Section 11. Toxicological Information**INFORMATION ON LIKELY ROUTES OF EXPOSURE:**

Inhalation: May cause irritation of the respiratory system. Prolonged inhalation may be harmful.

Ingestion: Causes respiratory tract irritation.

Skin Contact: May cause skin irritation.

Eye Contact: May cause serious eye irritation.

COMPONENT INFORMATION:

<u>Chemical Name</u>	<u>oral LD50</u>	<u>Dermal LD50</u>	<u>Inhalation LC50</u>
Tributoxyethyl phosphate	000mg/kg	>5000 mg/kg	>6.4mg/L
Di(ethyleneglycol) ethyl ether	920mg/kg	4200uL/kg	>5240mg/m ³ , 4hr
Glycol ether TPM	184mg/kg	15440mg/kg	
Dipropylene Glycol Monomethyl Ether (DPM)	5230mg/kg	9500mg/kg	
Alcohol ethoxylate	1378mg/kg	>2g/kg	

INFORMATION ON PHYSICAL, CHEMICAL, TOXICOLOGICAL EFFECTS:

Symptoms: See sec. 4 of this SDS for symptoms.

DELAYED & IMMEDIATE EFFECTS AS WELL AS CHRONIC EFFECTS FROM SHORT TERM EXPOSURE & LONG TERM EXPOSURE:

Carcinogenicity: Not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA

Respiratory Sensitization: Not a respiratory sensitizer.

Skin Sensitization: Not a skin sensitizer.

Germ Cell Mutagenicity: No data available to indicate product is mutagenic or genotoxic.

Reproductive Toxicity: Not expected to cause reproductive toxicity.

Specific Target Organ Toxicity, Single exposure: Not classified

Specific Target Organ Toxicity, repeated exposure: Not classified.

Aspiration Hazard: Not available.

Chronic Effects: None noted.

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Section 12. Ecological Information

Ecotoxicity: Harmful to aquatic life. Harmful to aquatic life with long lasting effects.

<u>Chemical</u>	<u>Algae/Aquatic Plants</u>	<u>Fish</u>	<u>Crustacea</u>
Tributoxyethyl phosphate	N/A	LC50 10.4-12.0mg/l 96 hr.	N/A
Di(ethylene glycol) ethyl ether	N/A	11400-15700; 96 hr. Onchorhynchus mykiss mg/L LC50 flow-through 11600-16700: 96 hr. Pimephales promelas mg/L LC50 flow-through 10000: 96 hr. lepomis macrochirus mg/L LC50 static 19100-23900: 96 hr. Lepomis macrochirus mg/L LC50 flow-through 13400: 96 hr. salmo gairdneri mg/L LC50 flow-through	N/A
Glycol ether TPM	N/A	11619: 96 hr. Pimephales promelas mg/L LC50 static	10:48 h Daphnia magna mg/L EC50
Dipropylene glycol monomethyl ether (DPM)	N/A	10000: 96 h Pimephales promelas mg/L LC50 static	1919:48 h Daphnia magna mg/L LC50 static

Persistence & Degradability: No data available.

Bioaccumulation: No data available

Mobility in Soil:

Chemical Name**Partition Coefficient**

Tributoxy phosphate	4.78
Di(ethylene glycol) ethyl ether	-0.8
Dipropylene glycol monomethyl ether (DPM)	-0.064

Other adverse Effects: No other adverse effects expected.

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Section 13. Disposal Considerations

Disposal Instructions: Disposal should be in accordance with applicable regional, national and local laws and regulations.

Hazardous waste Code: Not a hazardous waste.

Waste from Residues/Unused Products: Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see Disposal Instructions).

Contaminated Packaging: Since empty containers may contain product residue, follow all label warnings even after container is emptied. Follow disposal directions.

Section 14. Transport Information

<i>Regulatory Information</i>	<i>UN Number</i>	<i>Proper Shipping Name</i>	<i>Classes</i>	<i>PG*</i>	<i>Label</i>
DOT Classification: Not Regulated					

NOTE: DOT Classification applies to most package sizes. For specific container size classifications or for size exceptions, refer to the Bill Of Lading with your shipment.

PG*: Packing Group

Section 15. Regulatory Information**U.S. Federal Regulations:**

SARA 313 toxic chemical notification and release reporting:

Di(ethylene glycol) ethyl ether CAS# 111-90-0

Glycol Ether TPM CAS# 25498-49-1

Dipropylene glycol monomethyl ether (DPM) CAS# 34590--94-8

US State Right to Know Regulations:

New Jersey: Di(ethylene glycol) ethyl ether, Glycol Ether TPM, Dipropylene glycol monomethyl ether (DPM)

Massachusetts: Dipropylene glycol monomethyl ether (DPM)

Pennsylvania: : Di(ethylene glycol) ethyl ether, Glycol Ether TPM, Dipropylene glycol monomethyl ether (DPM)

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Section 16. Other Information

NFPA: 1,0,0,B

HMIS: 1,0,0, B

Issue Date: September 2, 2015

Revision Date: N/A

Revision Note: N/A

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 the 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.

**Note: Hazard Determination System (HDS) ratings are on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although these ratings are not required on SDS's under 29 CFR 1910.1200, the preparer may choose to provide them. HDS ratings are to be used with a fully implemented program to relay the meanings of this scale.*