

SAFETY DATA SHEET

1: Identification

Product Name: PHANTOM 3™ (B-Side)
PHOENIX PROTECTIVE COATINGS
804 Summer Park, Suite 450
Stafford, TX 77477
888-492-3339

Spill, leak, fire, exposure, or accident, call
CHEMTREC day or night
Domestic North America: 800-424-9300
email: info@phoenixliners.com

2: Hazards Identification

GHS Ratings:

Eye corrosive

2A

Eye irritant: Subcategory 2A, Reversible in 21 days

GHS Hazards:

Causes serious eye irritation

GHS Precautions:

Wash hands / skin thoroughly after handling

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Wear protective gloves/protective clothing/eye protection/face protection

If eye irritation persists: Get medical advice/attention



Warning

3: Composition / Information on Ingredients

Chemical Name	CAS number	Weight Concentration %
Polyether Polyol	9082-00-2	15 - 40%
Polyether Polyol		10 - 30%
Diethyltoluenediamine	68479-98-1	10 - 30%
Polyether Polyol		1 - 5%
Titanium Dioxide	13463-67-7	0 - 5%
Trade Secret		1 - 2%
Carbon Black	1333-86-4	0 - 1%

4: First-aid Measures

Inhalation: Remove to fresh air if effects occur. Consult a physician.

Eye Contact: Flush eyes with large quantities of water for at least 15 minutes. Consult a physician.

Skin Contact: Wash thoroughly with soap and flowing water.

Ingestion: If swallowed, seek medical attention. Do not induce vomiting unless directed to do so by medical personnel.

Notes to Physician: No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

5: Fire-fighting Measures

Flash Point: >100 C (>212 F)

Flammable Properties: Product is not considered a fire hazard, but will burn if ignited. NFPA Flammability Class: Class III A liquids are combustible liquids that have a flash point > 140° F (60° C), but <200° F (93° C). Class III B liquids are combustible liquids that have a flash point >200° F.

Suitable Extinguishing Media: Carbon dioxide, dry chemical, water fog or fine spray. Alcohol resistant foams are preferred, general purpose synthetic foams or protein foams may function, but will not be as effective.

Unsuitable Extinguishing Media: Do not use direct water stream, as it may spread fire.

Products of Combustion: Thermal decomposition in the presence of air may yield carbon monoxide, carbon dioxide, phenolics, ammonia, nitrogen oxides and other unidentified toxic and/or irritating compounds.

Fire Fighting: Stay upwind and keep people away. Isolate fire and deny unnecessary entry. Keep out of low areas where gases (fumes) can accumulate. Water is not recommended, but may be applied in large quantities as a fine spray when other extinguishing agents are not available. Use water spray to cool fire-exposed containers and fire-affected zone until fire is out. Contain fire water run-off if possible, as it may cause environmental damage. Review section 6 and section 12 of this SDS.

Protection of Firefighters: Wear positive pressure self-contained breathing apparatus (SCBA) and approved protective clothing (helmet, coat, trousers, boots and gloves). If contact is likely, use full chemical resistant fire fighting clothing with SCBA.

6: Accidental Release Measures

Personal Precautions: Put on appropriate personal protective equipment (see section 8).

Environmental Precautions: Prevent spilled material from contact with soil, drains and sewers.

Methods for Containment: Contain by diking with sand, earth or other suitable material.

Methods for Clean-up: Absorb spill with an inert material, use non-sparking tools to place into labeled waste container for disposal.

7: Handling and Storage

Handling: Wear appropriate personal protective equipment (see section 8). Avoid contact with skin, eyes or clothing. Do not breathe vapor or mist. Do not ingest. Avoid prolonged or repeated contact with skin. May cause allergic skin reaction, persons with a history of skin sensitization should not be employed in any process in which this product is used. Wash thoroughly with soap and water after handling. Do not handle or store near flame, heat or strong oxidants. Keep away from sources of ignition and hot metal surfaces.

Storage: Store original unopened containers in a sheltered area between 60°F and 80°F (15°C and 27°C) at atmospheric pressure. Do not store in direct sunlight. Keep containers closed when not in use.

8: Exposure Controls / Personal Protection

Control Parameters

Exposure limits are listed below, if they exist:

Chemical Name / CAS No.	OSHA Exposure Limits	ACGIH Exposure Limits	Other Exposure Limits
Titanium Dioxide 13463-67-7	15 mg/m ³ TWA (total dust)	10 mg/m ³ TWA	Not Established
Carbon Black 1333-86-4	3.5 mg/m ³ TWA	3 mg/m ³ TWA (inhalable fraction)	NIOSH: 3.5 mg/m ³ TWA; 0.1 mg/m ³ TWA (Carbon black in presence of Polycyclic aromatic hydrocarbons, as PAH)

Engineering Controls: General mechanical ventilation is sufficient for most conditions. Control airborne levels below the exposure guidelines, if established. Local exhaust ventilation may be necessary for some operations.

General Hygiene Considerations: Wash thoroughly after handling and before eating, drinking or smoking.

Eye/face Protection: Use chemical safety glasses, splash-proof eye goggles or goggles with full faceshield.

Skin Protection: Use neoprene, nitrile/butadiene rubber or other impermeable chemical resistant gloves to prevent skin irritation. If potential for skin contact is present, wear impervious, long-sleeved, body covering clothing and rubber boots.

Respiratory Protection: If exposure may or does exceed occupational exposure limits, respiratory irritation is experienced, or during spray application, use a properly fitted MSHA/NIOSH approved respirator fitted with organic vapor cartridges and particulate pre-filters. If the respirator is the sole means of protection, use a full-face supplied air respirator. If sanding or grinding on cured material, use above respirator fitted with HEPA filters or a dust mask.

Contaminated Gear: Remove contaminated clothing and shoes while washing. Wash clothing before reuse. Discard items which cannot be decontaminated, including leather articles such as shoes, belts and watchbands.

9: Physical and Chemical Properties

Appearance: Product color varies	Lbs VOC/Gallon Less Water: 0.0
Vapor Pressure: No Data	Odor: Ammonia-like
pH: No Data	Odor threshold: No Data
Freezing point: No Data	Melting point: No Data
Evaporation rate: No Data	Flash point: 212°F / 100°C
Explosive Limits: No Data	Flammability: No Data
Vapor pressure: 10.0 mmHg	Specific Gravity: 0.9 - 1.1
Solubility: No Data	Partition coefficient (n-octanol/water): No Data
Boiling Point: 313 °C	Autoignition temperature: No Data
Decomposition Temperature: No Data	Viscosity: No Data

10: Stability and Reactivity

Chemical Stability: Stable under recommended storage conditions (see Section 7).

Conditions to Avoid: Elevated temperatures may cause product to decompose.

Incompatible Materials: Strong acids, bases, or oxidizing agents. Avoid unintended contact with isocyanates and/or epoxies.

Products of Combustion: Thermal decomposition in the presence of air may yield carbon monoxide, carbon dioxide, phenolics, ammonia, nitrogen oxides and other unidentified toxic and/or irritating compounds.

Hazardous polymerization will not occur.

11: Toxicological Information

Mixture Toxicity

Oral Toxicity LD₅₀: 2,409 mg/kg

Dermal Toxicity LD₅₀: 3,914 mg/kg

Component Toxicity:

68479-98-1

Diethyltoluenediamine

Oral LD₅₀: 738 mg/kg (Rat) Dermal LD₅₀: 2,017 mg/kg (Rat)

Toxicological information on this product or its components appear in this section when such data is available.

Likely Routes of Exposure: No data found

Target Organs: May cause damage to the following organs: *Eyes, Respiratory System*

Effects of Overexposure: No data found

Carcinogenicity: Titanium dioxide has been characterized by IARC as possibly carcinogenic to humans (Group 2b) through inhalation (not ingestion), based on lifetime inhalation studies of rats. The IARC's findings were consistent with the massive accumulation of fine dust particles in the rat's lung (which overwhelm the natural lung clearance mechanisms, causing lung overloading) and consequential pulmonary overload and inflammation that causes lung cancer. In further studies, these tumors were found to occur only under particle overload conditions in a uniquely

sensitive species, the rat, and have little or no relevance for humans. Epidemiology studies on more than 20,000 workers do not suggest an increased risk of cancer in humans from occupational exposure to titanium dioxide. If present in this product, the titanium dioxide is in a "wet out" form and does not pose an inhalation hazard.

Carcinogenicity: This product may contain carbon black, a substance that has been listed by OSHA as a carcinogen to humans when inhaled. If present in this product, it is pre-dispersed in a liquid and not available as a dust. Under normal use conditions it would not be considered a hazard. IARC characterized carbon black as a possible human carcinogen (Group 2B) and concluded that there is sufficient evidence in experimental animals for the carcinogenicity of inhaled carbon black dust and inadequate evidence of carcinogenicity in humans. The IARC's findings were consistent with the massive accumulation of fine dust particles in the lung which overwhelm the natural lung clearance mechanisms, known as "lung overload" phenomenon, rather than from a specific chemical effect from the carbon black in the lung. NIOSH recommends that only carbon blacks with a PAH level greater than 0.1% be considered potential occupational carcinogens.

CAS Number	Description	% Weight	Carcinogen Rating
13463-67-7	Titanium Dioxide	0 - 5%	Titanium Dioxide: NIOSH: potential occupational carcinogen IARC: Possible human carcinogen OSHA: listed
1333-86-4	Carbon Black	0 - 1%	Carbon Black: NIOSH: potential occupational carcinogen IARC: Possible human carcinogen OSHA: listed

12: Ecological Information

Only component information is listed, if any. No testing has been performed on this mixture as it relates to ecological impact.

Component Ecotoxicity:

Diethyltoluenediamine

96 Hr LC50 fish: >104 mg/L

48 Hr EC50 water flea: 5.8 mg/L

72 Hr EC50 algae: 104 mg/L

13: Disposal Considerations

Waste Disposal Methods: Dispose of in accordance with federal, state and local regulations. The preferred method for disposal of uncontaminated product is by recycling, reclaiming, incineration or other thermal destruction device using a licensed and permitted waste disposal contractor.

14: Transport Information

Agency	Proper Shipping Name	UN Number	Packing Group	Hazard Class
DOT	Not Regulated			
ICAO/IATA	Not Regulated			
IMDG	Not Regulated			
TDG	Not Regulated			

15: Regulatory Information

USA Federal: This SDS has been prepared in compliance with the Occupational Safety and Health Act (OSHA) Hazard Communication Standard (29 CFR 1910.1200). This product is considered to be a hazardous chemical under that standard. The specific chemical identity and/or exact percentage of any proprietary ingredient(s) may be withheld as a trade secret, pursuant to the standard.

California Proposition 65 - Safe Drinking Water and Toxic Enforcement Act of 1986: To the best of our knowledge, this product contains the following chemicals which are known to the State of California to cause cancer, developmental or reproductive toxicity at levels which require warning under this statute:

1333-86-4	Carbon Black	0 - 1 %	Carcinogen
13463-67-7	Titanium Dioxide	0 - 5 %	Carcinogen

USA Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) - section 103

Hazardous Substances Reportable Quantities (RQs): To the best of our knowledge, this product contains the following chemicals which are listed in 40 CFR 302.4:

- None

States Right to Know Lists - MA, NJ, PA: To the best of our knowledge, this product contains the following chemicals at levels which require reporting under this statute:

1333-86-4	Carbon Black	0 - 1 %
13463-67-7	Titanium Dioxide	0 - 5 %

USA Resource Conservation and Recovery Act (40 CFR 261): To the best of our knowledge, this product contains the following chemicals at levels which require reporting under this statute:

- None

USA SARA 313 - Toxic Release Inventory (TRI) Form R: To the best of our knowledge, this product contains the following chemicals which are listed in 40 CFR 372.65:

- None

USA SARA 302 - Extremely Hazardous Substances Threshold Planning Quantities (TPQs): To the best of our knowledge, this product contains the following chemicals at levels which require reporting under this statute:

- None

USA Toxic Substances Control Act (TSCA) - section 12(b): To the best of our knowledge, this product contains the following chemicals above the de minimus concentration(s) which requires notification to the Environmental Protection Agency (EPA) per 40 CFR 707, subpart D, if any person intends to export:

68479-98-1	Diethyltoluenediamine	10 - 30 %
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Country	Regulation	All Components Listed
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Canada Domestic Substance List	Yes
Canada	Canada Non-Domestic Substances List (NDSL)	No
China	China Inventory of Existing Chemical Substances	Yes
EU	EU REACH List of Registered Intermediates	No
EU	EU REACH List of Pre-Registered Substances	Yes
EU	EU REACH List of Registered Substances	No
Japan	Japanese Existing and New Chemical Substances List	No
South Korea	South Korea Existing Chemicals Inventory	Yes
Philippines	Philippines Inventory of Chemicals and Chemical	Yes
USA	USA TSCA Inventory list section 8(b)	Yes

16: Other Information

The customer is responsible for determining the proper PPE code for this material within their respective process.

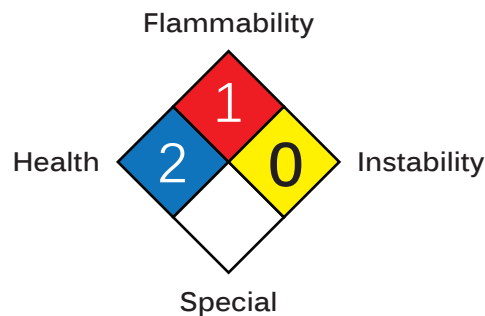
Hazardous Material Information System (HMIS)

2	HEALTH
1	FLAMMABILITY
0	PHYSICAL HAZARD
	PERSONAL PROTECTION

HMIS & NFPA Hazard Rating Legend

* = Chronic Health Hazard
0 = INSIGNIFICANT
1 = SLIGHT
2 = MODERATE
3 = HIGH

National Fire Protection Association (NFPA)



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Reviewer Revision 0

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THE PRODUCT MAY PRESENT HAZARDS AND SHOULD BE USED WITH CAUTION. WHILE CERTAIN HAZARDS ARE DESCRIBED IN THIS PUBLICATION, NO GUARANTEE IS MADE THAT THESE ARE THE ONLY HAZARDS THAT EXIST.

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