

SAFETY DATA SHEET

Quantum Technical Services Ltd.

Section 1. Product and Company Identification

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|----------------------|--|
| Product Name | PRECIDIUM™ Epoxy 41P Primer 'A' (Resin) |
| Manufacturer | Quantum Technical Services Ltd. (Dba Quantum Chemical) 15 Riel Drive St. Albert, AB, Canada T8N 3Z2 Tel: (780) 458-3355 (non-emergency phone number) Fax: (780) 458-2852 www.quantumchemical.com |
| Chemical Emergencies | For 24-Hour Emergency call Canutec at 613.996.6666 |

Section 2. Hazards Identification

2.1 Classification

GHS Classification This product contains a small amount of Titanium Dioxide which is considered possibly hazardous in its powder form. IARC lists TiO₂ powder as 2B “possibly carcinogenic to humans” when it is inhaled as dust. All TiO₂ in this product is dispersed in liquid.

Eye Irritant **Category 2**

2.2 Label Elements Pictogram



Signal Word **Warning**

Hazard Statements
H351: Suspected of causing cancer
H319 Causes serious eye irritation.

Precautionary Statements
P201 Obtain special instructions before use.
P202: Do not handle until all safety precautions have been read and understood
P280: Wear protective gloves/protective clothing/eye protection/face protection.

Response
P308+P313 If exposed or concerned: Get medical attention.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do so. Continue rinsing.
P337+P313: If eye irritation persists: Get medical advice/attention.

Disposal **P501** Dispose of contents/containers in accordance with local /regional/national international regulations.

Section 3. Composition and Ingredient Information

| Ingredient / CAS No. | % (w/w) | LD/50, Route, Species | LC/50, Route, Species |
|--|---------|--------------------------|-----------------------------------|
| Titanium Dioxide 13463-67-7 | 10 - 30 | >24,000 mg/kg, oral, rat | >6820 mg/m ³ 4 hr. rat |
| Aluminum dihydrogen triphosphate 13939-25-8 | 5 – 10 | >5000 mg/kg oral, rat | > 3.46 mg/l, rat |
| Mica 12001-26-2 | 1 - 5 | Not indicated | Not indicated |

Note: Concentration ranges are given to protect proprietary information.

Section 4. First Aid Measures

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| Eye Contact | Immediately flush eyes with running water for a minimum of 15 minutes. Hold eyelids open during flushing. If irritation persists, repeat flushing. Obtain medical attention IMMEDIATELY. |
| Skin Contact | Remove contaminated clothing. Wash affected areas thoroughly with plenty of soap and water. If irritation, redness or a burning sensation develops and persists, obtain medical advice. Contaminated clothing should be thoroughly cleaned before reuse. |
| Inhalation | Remove patient from exposure, keep warm and at rest. If breathing is labored, oxygen should be administered by qualified personnel. Obtain medical attention if there are persistent symptoms. |
| Ingestion | If swallowed, when in doubt or if symptoms are observed, get medical advice. |
| NOTE to Physicians | No specific measures have been identified. |

Section 5. Fire Fighting Measures

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| Extinguishing Media | Carbon dioxide, dry chemical, water spray or fog. |
| Unsuitable Extinguishing Media | Full water jet. |
| Special Protective Equipment and Precautions for firefighters. | Fire fighters must wear full protective equipment including self-contained breathing apparatus with chemical protection clothing. |
| Special Hazards | Keep containers cool by spraying with water if exposed to fire. |

Section 6. Accidental Release Measures

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| Personal Precautions | Wear approved respirator suitable for level of exposure. In addition to the protective clothing/equipment in Section 8, wear impermeable boots. |
| Method for Cleaning Up | Cover spills with some inert absorbent material, sweep up and place in a waste disposal container. Flush spill area with water. |
| Environmental Precautions | None known. |

Section 7. Handling and Storage

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| Handling | Precautions: Wash hands thoroughly after handling. Special Handling Statements; Provide good ventilation of working area. (local exhaust ventilation if necessary). During processing and handling of the product, comply with indicative occupational exposure limit values. |
| Storage Needs | Store in a cool, dry, well-ventilated space and keep container tightly closed. Keep away from source of ignition. Take precautionary measures against electrostatic loading – earthing necessary during loading operations. Observe the general rules of industrial fire protection. Sensitive to frost. |

Section 8. Exposure Controls and Personal Protection.

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| Protective Equipment: Eye | Safety spectacles. If there is a potential for splashing, use a full face shield. |
| Respiratory | Recommended: Respirator with organic vapour cartridge. |
| Gloves | For repeated exposure Nitrile rubber thickness 0.56 mm, break through time up to 480 min. For short term exposure/splash protection: Nitrile rubber thickness 0.38 mm. |
| Clothing | Protective clothing should be selected and used in accordance with “Guidelines for the Selection of Chemical Protective Clothing” published by ACGIH. |
| Other/Type | Eyewash fountain. Emergency shower should be in close proximity. |
| Ventilation Requirements | Where the material is not used in a closed system. Good enclosure and local exhaust ventilation should be provided to control exposure. |

Note: Exposure limits for these powder ingredients are based on respirable dust. In this product all the powders are fully dispersed in liquid and there is no danger of inhaling. In our opinion dust exposure limits for these ingredients do not apply to this product.

Titanium Dioxide

13463-67-7

PEL (OSHA) 15 mg/m³ (8 hr TWA total dust)
TLV (ACGIH) 10 mg/m³ (TWA)

Aluminium dihydrogen triphosphate

13939-25-8

| | | |
|--------------------------|----------------------|-----------------|
| Long Term Exposure value | 10 mg/m ³ | inhalable dust |
| | 4 mg/m ³ | respirable dust |

Mica

12001-26-2

TLV (ACGIH) 3mg/m³ TWA
PEL (OSHA) 3 mg/m³

Section 9. Physical and Chemical Properties

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| Physical State | Liquid. |
| Odor | Mild. |
| Specific Gravity | 1.41 |
| Odor Threshold(ppm) | Not applicable. |
| Vapor Density | Not available. |
| Evaporation Rate | Not available. |
| Percent Volatile (% by Wt) | 38 mostly water. |
| pH | Not available. |
| Solubility in water | Soluble. |
| Coefficient of water/oil | |
| Distribution | Not applicable. |
| Freezing Point (deg C) | Not available. |
| Melting Point (deg C) | Not available. |

Section 10. Stability and Reactivity

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|-------------------------|---|
| Stability | Stable. |
| Conditions to Avoid | Avoid high and freezing temperatures. |
| Polymerization | Will not occur. |
| Conditions to Avoid | None known. |
| Materials to Avoid | Amines Avoid contact with acids and alkalis. |
| Hazardous Decomposition | Carbon Dioxide |
| Products | Carbon monoxide (CO) |

Section 11. Toxicological Information

Acute Toxicity

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|---|--|
| Titanium Dioxide 13463-67-7 | LD50 >24,000 mg/kg, oral, rat LC50 >6820 mg/m3, inhalation, 4 hr. rat |
| Aluminum dihydrogen triphosphate 13939-25-8 | LD50 >5000 mg/kg oral, rat LC50 > 3.46 mg/l, inhalation, rat |
| Mica 12001-26-2 | Not indicated |

Titanium Dioxide and mica are either IARC listed as potential or known carcinogens in humans based on inhalation of dust and powder. In this product these ingredients are fully dispersed in liquid and potential to inhale dust or powder is not applicable. In our opinion in this product the carcinogenic effect of TiO₂ and mica are not applicable.

Section 12. Ecological Information

This material is not classified as dangerous to the environment.
This material is not readily biodegradable.

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| Titanium Dioxide 13463-67-7 | Aquatic Toxicity | |
| | Fish (96 hr, fathead minnow) | LC50 >1000 mg/l |
| | Algae (72 hr. green algae) | EC50 61 mg/l |
| | Daphnia (48 hr. Water Flea) | EC50 >1000 mg/l |

Section 13. Disposal Considerations

Waste Disposal The generation of waste should be avoided or minimized wherever possible. Disposal should be in accordance with federal, provincial and municipal regulations.

Section 14. Transport Information

Canada Not regulated.

US DOT Not regulated.

Section 15. Regulatory Information

Canadian DSL At least one component is not listed on the DSL but all such components are listed on the NDSL.

USA TSCA All components are listed.

Titanium Dioxide
13463-67-7

SARA 313 This material does not contain any chemical components with known CAS numbers that exceed the threshold reporting levels established by SARA Title III, Section 313.

California Prop 65 Warning! This product contains a chemical known to the state of California top cause cancer. The listing of titanium dioxide is for “airborne, unbound particles of respirable size.” The listing is not applicable to titanium dioxide when it remains bound in the polymer matrix.

Mica
12001-26-2

SARA 311/312 Health and Physical Hazard Categories per 40 CFR 370.2.

Immediate – Yes, Delayed – Yes, Fire – No, Pressure – No, Reactivity – No.

California Prop 65 Warning! This product may also contain small amounts of one or more naturally occurring materials known to the State of California top cause cancer, birth defects, or other reproductive harm.

Section 16. Other Information

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