

1. Product and company identification

Product Name	Pro-Bonder – Part A
Internal Code	260110, 260130
Product Type	Epoxy Resin
Product Use	Civil Engineering Resin System
Manufacturer/Supplier	Prospec Specialties Inc. Suite 400, 3601, Highway 7, Markham ON, L3R 0M3, CANADA info@prospecspecialties.com
Revision Date	27-NOV-2012
Telephone	For 24-Hour Emergency Response Information Call Tel: (888) 749-8456 (Canada)

2. Hazards identification

Product Form	Viscous off-white liquid
OSHA/HCS status	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Emergency Overview	WARNING! MAY CAUSE EYE AND SKIN IRRITATION. MAY CAUSE ALLERGIC SKIN REACTION. MAY CAUSE RESPIRATORY TRACT IRRITATION.
<u>Potential acute health effects</u>	
Inhalation	Heating of the product may generate vapors that could cause nausea, dizziness and respiratory tract irritation.
Ingestion	Not expected to be a relevant route of exposure. Product contains trace amounts of materials that may be slightly toxic.
Skin	May cause moderate irritation. May cause allergic skin reaction in individuals with prior sensitization.
Eyes	May cause eye irritation.
<u>Potential chronic health effects</u>	
Chronic effects	No known significant effects or critical hazards.
Carcinogenicity	This product contains Titanium Dioxide (CAS # 13463-67-7) which is classified as possibly carcinogenic to humans by IARC (IARC Group 2B)
Developmental effects	No known significant effects or critical hazards.
Fertility effects	No known significant effects or critical hazards.

Target organs Review Section 2 and 11 for any additional assessments.

Over-exposure signs/symptoms

Inhalation	Respiratory tract irritation, coughing.
Ingestion	No specific data.
Skin	Irritation, redness.
Eyes	Pain and/or irritation, redness, watering eyes.
Medical conditions aggravated by over-exposure	Pre-existing skin disorders may be aggravated by over-exposure to this product.

See section 11 for more detailed information on health effects and symptoms.

3. Composition/Information on ingredients

<u>Ingredient name</u>	<u>CAS number</u>	<u>WT%</u>
4, 4'-Isopropylidenediphenol-Epichlorohydrin Copolymer	25068-38-6	30 – 55%
Calcium Carbonate	1317-65-3	15 – 30%
Kaolin	1332-58-7	15 – 30%
Titanium Dioxide	13463-67-7	< 3%

4. First aid measures

Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention.
Skin contact	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. In the event of any complaints or symptoms, avoid further exposure. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Inhalation	Move exposed person to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Ingestion	Wash out mouth with water. Remove dentures if any. Move exposed person to fresh air. Keep person warm and at rest. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to

do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Notes to physician No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

5. Fire-fighting measures

Flammability properties of the product Flash Point: >302°F (>150°C)
Flash Point Method Used: PMCC
Flammable Limits in Air (Lower - % by volume): N/A
Flammable Limits in Air (Upper - % by volume): N/A

Extinguishing media

Suitable Use Water Fog, Foam, Dry Chemical or Carbon Dioxide (CO₂)

Not suitable None known.

Special exposure hazards Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Hazardous combustion products Carbon monoxide, carbon dioxide.

Unusual Fire and Explosion Hazards Sealed, fire-exposed containers may build up dangerous pressure, potentially resulting in explosive rupture.

Special protective equipment for fire-fighters Fire-fighters should wear appropriate protective equipment. Wear self-contained breathing apparatus and complete personal protective equipment when entering confined areas where potential for exposure to vapors or products of combustion exists.

6. Accidental release measures

Personal precautions No action shall be taken involving any personal risk or without suitable training. Wear a properly fitted NIOSH/MSHA approved respirator whenever exposure to mist is likely to exceed acceptable limits. Put on appropriate personal protective equipment (see section 8).

Environmental precautions Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Spill Response Use the proper personal protection equipment. Shut off source of leak if it is safe to do so. Dike spill. Absorb with inert material and dispose of properly.

7. Handling and storage

Handling Put on appropriate personal protective equipment (see section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Avoid breathing vapor or mist. Avoid contact with eyes, skin, and clothing. Avoid tasting or swallowing. Keep container closed when not in use. Use with adequate ventilation. Wash thoroughly after handling.

Storage Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store in accordance with all local and government regulations.

8. Exposure controls/personal protection

CAS Number	Chemical Identity	Exposure Limits				
		ACGIH		OSHA		NIOSH
		TWA	STEL	PEL	STEL	
25068-38-6	4,4'-Isopropylidenediphenol Epichlorohydrin Copolymer	N.E.	N.E.	N.E.	N.E.	N.E.
1317-65-3	Calcium Carbonate (Total Dust) (Respirable Fraction)	N.E. N.E.	N.E. N.E.	15 mg/m ³ TWA 5 mg/m ³ TWA	N.E. N.E.	10 mg/m ³ TWA 5 mg/m ³ TWA
1332-58-7	Kaolin (Total Dust) (Respirable Fraction)	N.E. 2 mg/m ³ TWA	N.E. N.E.	15 mg/m ³ TWA 5 mg/m ³ TWA	N.E. N.E.	N.E. N.E.
13463-67-7	Titanium Dioxide (Total Dust)	10 mg/m ³ TWA	N.E.	15 mg/m ³ TWA	N.E.	N.E.

Recommended monitoring procedures If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.

Engineering measures Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Hygiene measures Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are located in the work area.

Respiratory Use a properly fitted, air-purifying or air-supplied respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Eyes	Safety glasses with side-shields or chemical splash goggles are recommended.
Skin	Impervious gloves should be used. Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

9. Physical and chemical properties

Form	Viscous Liquid
Color	Off-White
pH	Not determined
Boiling point	>150°C (>302°F)
Freezing Point	<2°C (<36°F)
Specific gravity	1.46
Vapor pressure	Not determined
Odor threshold	Slight, sweet odor
Solubility in water	Negligible
Evaporation rate	Not Determined
Vapor density	Not Determined

10. Stability and reactivity

Stability	The product is stable. Under normal conditions of storage and use, hazardous polymerization will not occur.
Conditions to avoid	Contact with strong oxidizers or acids. Extremes of temperature and direct sunlight. Exposure to water vapor.
Materials to avoid	Reactive or incompatible with the following materials: Strong oxidizing agents, strong acids, strong alkalis.
Other hazards	Reacts with considerable heat release with some curing agents.
Hazardous decomposition products	Decomposition products may include the following materials: Carbon monoxide and/or carbon dioxide.

11. Toxicological information

Acute toxicity

LD50 Oral	Rat	> 500 mg/kg
LD50 Dermal	Rabbit	> 1,200 mg/kg
LC50 Inhalation		Not Determined

Carcinogenicity Classification

Ingredient name

Titanium Dioxide (CAS # 13463-67-7)

IARC	Group 2B (Possibly carcinogenic to humans)
NTP	Not listed
OSHA	Not regulated as a carcinogen
EU	Not classified

12. Ecological information

Environmental effects

No known significant effects or critical hazards.

Other adverse effects

No known significant effects or critical hazards.

13. Disposal considerations

Waste disposal

The generation of waste should be avoided or minimized wherever possible. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

14. Transport information

The data provided in this section is for information only and may not be specific to each package size or mode of transport. Apply the appropriate regulations to properly classify your shipment for transportation.

International transport regulations

Regulatory Information	UN/NA number	Proper shipping name	Classes/*PG	Reportable Quantity (RQ)
CFR	N/A	Not Dangerous Goods	N/A	N/A
TDG	N/A	Not Dangerous Goods	N/A	N/A
IMO/IMDG	N/A	Not Dangerous Goods	N/A	N/A
IATA (Cargo)	N/A	Not Dangerous Goods	N/A	N/A

*PG : Packing group

15. Regulatory information

US regulations

HCS Classification

When used for its intended purpose, this material is classified as hazardous in accordance with OSHA 29CFR 1910.1200. Irritating material, Sensitizing material

U.S. Federal regulations

SARA Title III, Section 311/312 Classification
 Immediate (Acute) health hazard
 Delayed (Chronic) health hazard

	<p>SARA Title III, Section 313 - Supplier Notification This product contains the following toxic chemical(s) subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986, and Subpart C-Supplier Notification Requirement of 40 CFR Part 372. No chemicals present above the de minimus limit.</p>
	<p>SARA Section 302 Extremely Hazardous Substances None required.</p>
State regulations	<p>Massachusetts RTK Substances Calcium Carbonate (CAS # 1317-65-3)</p> <p>Minnesota RTK Substances Calcium Carbonate (CAS # 1317-65-3)</p> <p>New Jersey RTK Hazardous Substances None</p> <p>Pennsylvania RTK Hazardous Substances Calcium Carbonate (CAS # 1317-65-3)</p> <p>California Prop. 65: WARNING: This product contains the following chemical(s) known to the State of California to cause cancer: Epichlorohydrin (CAS # 106-89-8) Oxirane, (phenoxymethyl) - (CAS # 122-60-1)</p> <p>California Prop. 65: WARNING: This product contains the following chemical(s) known to the State of California to be a reproductive toxin: Epichlorohydrin (CAS # 106-89-8)</p>
<u>Canada</u>	
WHMIS (Canada)	Class D-2B: Material causing other toxic effects (Toxic).
Canadian lists	Canadian NPRI : None required.
International regulations	
Chemical inventories	<p>Europe inventory - All components are listed or exempted Australia inventory (AICS) - All components are listed or exempted. Canada inventory - All components are listed or exempted Japan inventory - Not determined China inventory (IECSC) - All components are listed or exempted. Korea inventory - All components are listed or exempted. Philippines inventory (PICCS) – Not determined. United States inventory (TSCA 8b) - All components are listed or exempted.</p>
16. Other information	
Hazardous Material Information System III (U.S.A.)	<p>Health: 2 Flammability: 1 Physical hazards: 0 Personal Protection: X</p>

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. HMIS® ratings are to be used with a fully implemented HMIS® program.

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