



SAFETY DATA SHEET

According to 29 CFR 1910.1200(g) &
Canadian WHMIS 2015

PROTAL 7200 PART A (RESIN)

SECTION 1: Identification of the Substance/Mixture and of the Company/Undertaking

1.1. Product identifier

Product name Protal 7200 Part A (Resin)

1.2. Relevant identified uses of the substance or mixture and uses advised against

Product Use Industrial use as a protective coating in prevention of corrosion.

Restricted Use Not intended for use by general public.

1.3. Details of the supplier of the safety data sheet

Company Denso North America Inc.
Address 90 Ironside Crescent, Unit 12
Toronto, ON M1X 1M3
Web www.densona.com
Telephone 1 (416) 291-3435
Fax 1 (416) 291-0898
Email sales@densona-ca.com

1.4. Emergency telephone number

Emergency telephone number (24 Hour) 1 (888) 226-8832 Canutec Toll Free, *666 Cellular

SECTION 2: Hazards Identification

2.1. Classification of the substance or mixture

2.1.1. Health
Eye Irritation: Category 2A
Skin Irritation: Category 2
Skin Sensitization: Category 1

2.1.2. Environmental Not available.

2.1.3. Physical Not available.

2.2. GHS Label elements

Hazard pictograms



Signal Word

Danger

Hazard statement

H315 – Causes skin irritation
H317 – May cause an allergic skin reaction.
H319 – Causes serious eye irritation

Precautionary Statement: Prevention

P201 – Obtain special instructions before use.
P202 – Do not handle until all safety precautions have been read and



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understood.	
P261 – Avoid breathing dust/fume/gas/mist/vapors/spray.	
P264 – Wash thoroughly after handling.	
P272 – Contaminated work clothing should not be allowed out of the workplace.	
P280 – Wear protective gloves/protective clothing/eye protection/face protection.	
Precautionary Statement: Response	P302+P352 – IF ON SKIN: Wash with plenty of soap and water. P305+P351+P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P308+P313 – If exposed or concerned: Get medical advice/attention. P333+P313 – If skin irritation or rash occurs: Get medical advice/attention. P337+P313 – If eye irritation persists: Get medical advice/attention. P362+P364 – Take off contaminated clothing and wash it before reuse.
Storage	P405 – Store locked up.
Precautionary Statement: Disposal	P501 – Dispose of contents/container in accordance with local/regional/national/ international regulations.
Supplemental Information:	If product is in liquid or paste form, physical or health hazards listed related to dust are not considered significant. However, product may contain substances that could be potential hazards if caused to become airborne due to grinding, sanding or other abrasive processes.

SECTION 3: Composition/Information on Ingredients

3.1. Substances

Chemical Name	CAS No.	Concentration (%w/w)
Reaction product: Bisphenol-A- (epichlorhydrin); epoxy resin	25068-38-6	>= 30 - < 60%
Limestone	1317-65-3	>= 10 - < 30%
Talc	14807-96-6	>= 10 - < 30%
1,3-bis(2,3-epoxypropoxy)-2,2-dimethylpropane	17557-23-2	>= 5 - < 10%
[3-(2,3-epoxypropoxy)propyl]-trimethoxysilane	2530-83-8	>= 1 - < 5%

SECTION 4: First Aid Measures

4.1. General advice	Move out of dangerous area. Consult a physician. Show this material safety data sheet to the doctor in attendance.
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4.2. Eye contact	Immediately flush eyes with plenty of water. Remove any contact lenses. Keep eye open while rinsing. If eye irritation persists, consult a specialist.
4.3. Skin contact	Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. If symptoms persist, call a physician.
4.4. Ingestion	Clean mouth with water and drink afterwards plenty of water. Do not induce vomiting without medical advice. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person. Obtain medical attention.
4.5 Inhalation	Move to fresh air. Consult a physician after significant exposure.
4.6. Most important symptoms and effects, both acute and delayed	Irritant effects Sensitizing effects Carcinogenic effects Allergic reactions Excessive lachrymation. Erythema. Dermatitis See section 11 for more detailed information on health effects and symptoms. May cause an allergic skin reaction. Causes serious eye irritation.
Notes to physician	Treat symptomatically.

SECTION 5: Firefighting Measures

5.1. Suitable extinguishing media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
5.2. Specific hazards	None.
5.3. Special protective equipment for fire-fighters	In the event of fire, wear self-contained breathing apparatus.
5.4. Further information	Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

SECTION 6: Accidental Release Measures

6.1. Personal precautions, protective equipment and emergency procedures	Use personal protective equipment. Deny access to unprotected persons.
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6.2. Environmental precautions	Do not flush into surface water or sanitary sewer system. If the product contaminates rivers and drains inform respective authorities. Local authorities should be advised if significant spillages cannot be contained.
6.3. Methods and materials for cleaning up	Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust) Keep in suitable, closed containers for disposal.
6.4. Additional advice	None.

SECTION 7: Handling and Storage

7.1. Advice on safe handling	Do not breathe vapors or spray mist. Avoid exceeding the given occupational exposure limits (see section 8). Do not get in eyes, on skin, or on clothing. For personal protection, see section 8. Persons with a history of skin sensitizations problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used. Smoking, eating and drinking should be prohibited in the application area. Follow standard hygiene measures when handling chemical products.
7.2. Conditions for safe storage	Prevent unauthorized access. Store in original container. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Observe label precautions. Store in accordance with local regulations.
7.3. Technical precautions	Do not store in reactive metal containers.

SECTION 8: Exposure controls/Personal Protection

8.1. Ingredients with workplace control parameters

Ingredients	CAS No.	Value Type (Form of exposure)	Control parameters/ Permissible concentration	Basis
8.1.1. Exposure Limit Values				
Quartz (SiO ₂)	14808-60-7	TWA (Respirable fraction)	0.1 mg/m ³	CA ON OEL
		TWA (Respirable particulates)	0.025 mg/m ³	CA AB OEL
		TWAEV (Respirable dust)	0.1 mg/m ³	CA QC OEL
		TWA (Respirable)	0.025 mg/m ³ (Silica)	CA BC OEL
		TWA (Respirable fraction)	0.025 mg/m ³ (Silica)	ACGIH
Quartz (SiO ₂) <5µm	14808-60-7	TWA (Respirable fraction)	0.1 mg/m ³	CA ON OEL
		TWA (Respirable particulates)	0.025 mg/m ³	CA AB OEL
		TWAEV (Respirable dust)	0.1 mg/m ³	CA QC OEL
		TWA (Respirable)	0.025 mg/m ³ (Silica)	CA BC OEL
		TWA (Respirable fraction)	0.025 mg/m ³ (Silica)	ACGIH

8.2. Control measures / Personal Protection



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8.2.1. Recommended monitoring procedures	To meet the exposure limits for the materials listed above, 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.
8.2.2. Engineering measures	Use of adequate ventilation should be sufficient to control worker exposure to airborne contaminants. If the use of this product generates 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.
8.2.3. Hygiene measures	Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. Remove contaminated clothing and protective equipment before entering eating areas. Wash thoroughly after handling.
8.2.4. Respiratory protection	Use a properly fitted NIOSH approved air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. The filter class for the respirator must be suitable for the maximum expected containment concentration (gas/vapor/aerosol/particulates) that may arise when handling the product. If this concentration is exceeded, self-contained breathing apparatus must be used.
8.2.5. Eye protection	Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. This may include, but is not limited to, safety glasses, goggles and face shields.
8.2.6. Skin protection	Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific workplace.
8.2.7. Environmental exposure controls	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels. Environmental exposure controls may also include dikes or other liquid containment devices.

SECTION 9: Physical and Chemical Properties

Appearance:	Liquid
Color:	White
Odor:	Ether-like



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Odor threshold:	No data available
pH:	No data available
Melting/Freezing point:	No data available
Boiling point:	No data available
Flash point:	>101°C (214°F) Method: closed cup
Evaporation rate:	No data available
Flammability (solid, gas):	No data available
Upper explosion limit:	No data available
Lower explosion limit:	No data available
Vapor pressure:	0.01 hpa (0.01 mmHg)
Relative vapor density:	No data available
Density:	Ca. 1.465 g/ml 23°C (73°F)
Water Solubility:	Insoluble
Partition coefficient:	No data available
Auto ignition temperature:	No data available
Decomposition temperature:	No data available
Viscosity, dynamic:	No data available
Viscosity, kinematic	Not determined
Explosive properties	No data available
Molecular weight	No data available

SECTION 10: Stability and Reactivity

10.1 Chemical stability	The product is chemically stable.
10.2. Conditions to avoid	No data available.
10.3. Materials to avoid	No data available.
10.4. Other hazards	None.
10.5. Hazardous decomposition products	Stable under recommended storage conditions. No decomposition if stored and applied as directed.

SECTION 11: Toxicological Information

11.1. Acute health hazard	<p>Product: Acute dermal toxicity: Acute toxicity estimate: > 5,000mg/kg Method: Calculation method</p> <p>Ingredients: Bisphenol-A-(epichlorhydrin) epoxy resin: Acute oral toxicity: LD50 Oral (Rat): > 5,000 mg/kg</p> <p>Acute dermal toxicity: LD50 Dermal (Rabbit): > 20,000 mg/kg</p> <p>[3-(2,3-epoxypropoxy)propyl]trimethoxysilane: Acute oral toxicity: LD50 Oral (Rat): > 7,010 mg/kg</p>
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	Acute inhalation toxicity: LC50 (Rat) > 5.3 mg/L Exposure time: 4 h Test atmosphere: dust/mist
	Acute dermal toxicity: LD50 Dermal (Rabbit) > 4,248 mg/kg
	No data available on other components present.
11.2. Skin corrosion or irritation	Causes skin irritation.
11.3. Serious eye damage or irritation	Causes serious eye irritation.
11.4. Respiratory or skin sensitization	Skin sensitization: May cause an allergic skin reaction. Respiratory sensitization: Not classified based on available information.
11.5. Germ cell mutagenicity	Not classified based on available information.
11.6. Carcinogenicity	Not classified based on available information. IARC: Group 1: Carcinogenic to humans Quartz (SiO ₂) 14808-60-7 Quartz (SiO ₂) < 5µm 14808-60-7 Group 2B: Possibly carcinogenic to humans Titanium dioxide 13463-67-7 NTP: Known to be human carcinogen Quartz (SiO ₂) 14808-60-7 Quartz (SiO ₂) < 5µm 14808-60-7
11.7. Reproductive toxicity	Not classified based on available information.
11.8. STOT – single exposure	Not classified based on available information.
11.9. STOT – repeated exposure	Not classified based on available information.
11.10. Repeated dose toxicity	No data available.
11.11. Aspiration toxicity	Not classified based on available information.
11.12. Further information	Likely routes of exposure – inhalation; skin and eye contact.



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SECTION 12: Ecological Information

12.1. Ecotoxicity

Ingredients:

Bisphenol-A-(epichlorhydrin) epoxy resin:

Toxicity to fish: LC50 (Oncorhynchus mykiss (Rainbow trout)): 2 mg/L
Exposure time: 96 h

Toxicity to daphnia and other

aquatic invertebrates: LC50 (Daphnia magna (Water flea)): 1.8 mg/L
Exposure time: 48 h

[3-(2,3-epoxypropoxy)propyl]trimethoxysilane:

Toxicity to fish: LC50: (Cyprinus carpio (Carp)): 55mg/L
Exposure time: 96 h

12.2. Persistence and degradability

No data available.

12.3. Bioaccumulative potential

No data available.

12.4. Mobility in soil

No data available.

12.5. Other adverse effects

Product: Additional ecological information.

Do not empty into drains, dispose of this material and its container in a safe way. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. May be harmful to the environment if released in large quantities. Water polluting material.

SECTION 13: Disposal Considerations

13.1. Waste disposal

Waste form residues: 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.

Contaminated packaging: Empty containers should be taken to an approved waste handling site for recycling or disposal.

SECTION 14: Transport Information

14.1. UN number

UN3082

14.2. Proper shipping name

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (EPOXY RESIN)



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14.3. Transport hazard class

International Carriage of
Dangerous Good by
Road/Rail:
International Maritime
Dangerous Goods:
International Air Transport
Association:

ADR/RID: 9
IMDG: 9
IATA: 9
Packing Instruction (Cargo): 964
Packing instruction (Passenger): 964

US Code of Federal
Regulations:
Canadian Transportation of
Dangerous Goods:
US Department of
Transportation:

CFR Not Regulated
TDG: Not Regulated
DOT: Not Regulated in non-bulk packaging
(Drums/Pails/Cans)

14.4. Packing group

III

14.5. Environmental hazards

Environmental hazards: Yes Marine pollutant: Yes
ADR/RID
Hazard ID: 90 Tunnel Category: (E)
IMDG
EmS Code: F-A S-F

SECTION 15: Regulatory Information

15.1. OSHA Hazards Irritant, Sensitizer

15.2 to 15.9 Not Applicable

15.10. International Chemical Inventory Listing

TSCA (US) Yes (All components of this product are on US inventory)
DSL (Canada) Yes (All components of this product are on Canadian inventory)

Canadian Lists: No substances are subject to a Significant New Activity Notification.

15.11. WHMIS Hazard Classification (Canada)

Class D-2B: Material causing other toxic effects (Toxic).
Canadian NPRI: None required.

Canadian PBT Chemical: This product contains the following components on the DSL that are classified as Persistent, Bio-accumulative and/or Toxic (PBT) under



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CEPA: Naptha (petroleum), hydro-treated heavy.

SECTION 16: Other Information

16.1. NFPA	Not available.
16.2. HMIS®	Not available.
16.3. Text of Risk phrases in Section 3	Not available.
16.4. Text of Hazard statements in Section 3	Not available.
16.5. Notice to Reader	<p>The information provided herein was believed by Denso North America Inc. (“Denso”) to be accurate at the time of preparation and prepared from sources believed to be reliable, but it is the responsibility of the user to investigate and understand other pertinent sources of information, to comply with all laws and procedures applicable to the safe handling and use of the product and to determine the suitability of the product for its intended use. All products supplied by Denso are subject to Denso’s terms and conditions of sale. DENSO MAKES NO WARRANTY, EXPRESS OR IMPLIED, DENSO ASSUMES NO LIABILITY ARISING FROM THE USE OF THIS PRODUCT OR THE MECHANABILITY OR FITNESS THEREOF FOR ANY PURPOSE OR CONCERNING THE ACCURACY OF ANY INFORMATION PROVIDED BY DENSO, except that the product shall conform to Denso’s specifications.</p> <p>DENSO SHALL NOT BE LIABLE UNDER ANY LEGAL THEORY FOR SPECIAL OR CONSEQUENTIAL DAMAGES AND SHALL NOT BE RESPONSIBLE FOR THE USE OF THIS PRODUCT IN A MANNER TO INFRINGE ON ANY PATENT OR ANY OTHER INTELLECTUAL PROPERTY RIGHTS HELD BY OTHERS.</p> <p>Nothing contained herein constitutes an offer for the sale of any product.</p>
16.6. Key/Legend to abbreviations and acronyms used in the safety data sheet	<p>ACGIH American Conference Government Industrial Hygienists CAS Chemical Abstracts Service DNEL Derived No-Effect Level DSL Canada, Domestic Substances List EC50 Half Maximal Effective Concentration GHS Global Harmonization System IATA International Air Transport Association IMDG International Maritime Code for Dangerous Goods</p>



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LC50 Median lethal doses (the amount of a material, given all at once, which causes the death of 50% (one half) of a group of test animals)
LD50 Median lethal concentration (concentrations of the chemical in air that kills 50 % of the test animals during the observation period)
MARPOL International Convention for the Prevention of Pollution from Ships, 1973 as modified by the Protocol of 1978
NIOSH National Institute for Occupational Safety & Health
OEL Occupational Exposure Limit
OSHA Occupational Safety & Health Administration
PBT Persistent, Bio-accumulative and Toxic
PNEC Predicted No Effect Concentration
SVHC Substances of Very High Concern
TDG Transportation of Dangerous Goods (Canada)
TSCA Toxic Substance Control Act
TWA Time Weighted Average
vPvB Very Persistent and Very Bio-accumulative
WHMIS Workplace Hazardous Materials Information System

16.7. Prepared by

Denso EH & S Department

16.8. Telephone

1-416-291-3435 Corporate
1-888-266-8832 Emergency (Toll-free 24 hour), *666 Cellular