

Safety Data Sheet (SDS)

1. Identification

PRODUCT NAME: RADONSEAL 302 EPOXY SURFACE SEALER, PART A

SYNONYM: Thermosetting Resin

CHEMICAL FAMILY: Modified Epoxy Resin

MANUFACTURER / SUPPLIER: Novion Inc
494 Bridgeport Ave
Suite 101-336

TELEPHONE: 1-800-472-0603 Shelton CT 06484

2. Hazard(s) Identification

Signal Word: **WARNING**



Skin Contact: Exposure may cause moderate irritation, sensitization, and dermatitis. May cause allergic skin reaction

Eye Contact: May cause mild eye irritation. Prolonged contact with the eyes may cause reversible corneal opacity to occur, with no visual impairment expected.

Ingestion: Oral LD0: (rabbit) > 4000 mg/kg

Medical Conditions Generally Aggravated by Exposure: Allergy, eczema, skin conditions

Precautionary Statements: Do not handle until all safety precautions have been read and understood. Do not breathe vapors. In case of inadequate ventilation wear respiratory protection. Wear protective gloves and eye protection. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Store locked up. Keep away from children. Dispose of contents and container in accordance with applicable local, regional and national regulations.

Hazard Statements:

Causes skin and eye irritation.

May cause allergy or breathing difficulties if inhaled.

May cause an allergic skin reaction.

May cause respiratory irritation.

Effects of Overexposure: Irritation, sensitization, and dermatitis

None of the components of this material are listed as carcinogens by NTP, IARC, or OSHA.

Carcinogenicity: In order to comply with California Proposition 65, we feel obligated to advise that some of our products may conceivably contain trace contaminants of some of the listed chemicals. While not necessarily added to our products as ingredients, some listed chemicals may be present in the raw materials from suppliers and over which we have no control. Therefore, even though some of the listed substances may not be present, a significant risk as defined by the regulations in order to comply with California law, we feel obligated to make the following statement:

Warning: Our products may contain trace amounts of some chemicals considered by the State of California to be carcinogens or reproductive toxicants.

3. Composition / Information on Ingredients

INGREDIENT	% BY WEIGHT	EXPOSURE LIMITS	CAS #
Bisphenol a/diglycidyl Ether Resin	30 - 90	NE.	25068-38-6
Inert Powder	0 - 50	NE	14807-96-6
Fumed silica	0 - 5		067762-90-7
Cresyl Glycidyl Ether	3 - 5	ND	2210-79-9

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4. First Aid Measures

Eyes: Open lids wide and flush with large quantities of water for at least 15 minutes. Call a physician, preferably an eye specialist.

Skin: Wash with soap and water. Remove contaminated clothing and shoes. Wash clothing before reuse, discard shoes. Consult a physician if irritation develops.

Ingestion: Immediately drink large quantities of water. Induce vomiting. Consult physician

Inhalation: Remove the patient from the contaminated area to fresh air. Administer oxygen or artificial respiration as needed. Call a physician if after effects occur.

5. Fire Fighting Measures

Fire Degradation Products: Toxic fumes are released in fire situations. Acrid smoke/fumes

Extinguishing Media: Carbon dioxide, dry chemicals, foam. Where the fire is of major proportions, water spray may also be used. Water or foam may cause frothing if liquid is burning, but it still may be a useful extinguishing agent if carefully applied to the fire.

Protective equipment: In case of fire, use normal fire fighting equipment including a NIOSH approved, self contained breathing apparatus (SCBA). Use water to cool containers.

Explosion Hazards: Decomposition and combustion products may be toxic.

6. Accidental Release Measures

Small Spill: Absorb with rag. Wear proper personal protective equipment. Place in a chemical waste container for proper disposal.

Large Spill: Absorb with dry chemical absorbent, earth, sand or any other inert material. Wear proper personal protective equipment. Place in a chemical waste container for proper disposal. Flush contaminated areas with water.

Disposal: Any disposal practice must be in compliance with all federal, state and local laws and regulations. Chemical additions, processing, storage, or otherwise altering this material may make the waste management information presented in this SDS incomplete, inaccurate or otherwise inappropriate. Waste characterization and disposal compliance is the responsibility solely of the party generating the waste or deciding to discard or dispose of the material.

7. Handling and Storage

Storage: Store in tightly sealed containers. Store in a cool, dry, well ventilated area away from heat and open flame. Protect from moisture.

Handling: Avoid contact with skin, eyes, and clothing. Do not take internally. Use personal protective equipment when transferring material to or from drums, totes or other containers. Safety glasses and gloves are the minimum protection. Additional precautions must be used when splash hazards are present.

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8. Exposure Controls / Personal Protection

Respiratory Protection: Avoid breathing vapors. Use adequate ventilation.

Ventilation: Good mechanical ventilation and local exhaust.

Protective Gloves: Rubber or polyethylene.

Eye Protection: Chemical splash goggles or safety glasses.

Protective Clothing: Wear impervious clothing and gloves. Materials may include butyl rubber, nitrile rubber, neoprene and Saranex coated Tyvek.

Protective Equipment: Disposable containers and paper on work area. Use of barrier cream recommended. Use appropriate equipment to prevent eye or skin contact.

9. Physical and Chemical Properties

VP: >1 TORR @ 180° C

VD: >1 (air = 1)

Color: White

Solubility: Insoluble

Evaporation Rate: <1 (butyl acetate = 1)

SP GR: 1.32 (water = 1)

% Volatile by VL: Nil

Boiling Point: > 200° F

Flash Point: > 200° F (TCC)

Explosive Limits: LEL – NE
UEL – NE

10. Stability and Reactivity

Stability: Stable under recommended storage conditions.

Reactivity: Incompatibility Materials to Avoid: Strong oxidizers, strong acids or bases in bulk.

Hazardous Decomposition Products: Carbon monoxide, carbon dioxide, aldehydes and other organics.

Conditions to Avoid: Elevated temperatures, container contamination.

11. Toxicological Information

Toxicological Data: LD SOs provided are the lowest values for type of bisphenol A diglycidal ether resins used

Oral LD0: (rabbit) > 4000 mg/kg

Routes of Entry: Inhalation, skin contact, eyecontact, ingestion.

Carcinogenic Categories:

NTP: Not classified as a carcinogen **IARC:** Not classified as a carcinogen **OSHA:** Not classified as a carcinogen

12. Ecological Information

Comments: No information.

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13. Disposal Considerations

Disposal: Any disposal practice must be in compliance with all federal, state and local laws and regulations. Chemical additions, processing, storage, or otherwise altering this material may make the waste management information presented in this SDS incomplete, inaccurate or otherwise inappropriate. Waste characterization and disposal compliance is the responsibility solely of the party generating the waste or deciding to discard or dispose of the material.

Refer to RCRA 4 CFR 261 and/or any other appropriate federal, state or local requirements for proper classification information.

Container Disposal: Drums/containers should be decontaminated and either passed to an approved drum recycler or destroyed.

RCRA/EPA Waste Information: The generation of waste should be avoided or minimized whenever possible. Chemical waste, even small quantities, should never be poured down drains, sewers or waterways.

14. Transport Information

DOT (Domestic surface): Shipping name; Compound resin. Not regulated (Class 55)

IMO (Ocean): Not restricted.

ICAO (AIR): Not restricted.

15. Regulatory Information

TSCA Status: All ingredients are not required to be listed on the TSCA inventory

SARA Title III:

Section 311/312 Hazard Categories: This chemical is classified as a hazardous chemical due to the potential for allergic skin reaction.

Section 313 Toxic Chemicals: To the best of our knowledge this product contains no chemical subject to Sara Title III Section 313

OSHA: This chemical is classified as a hazardous chemical due to the potential for allergic skin reaction. Standard 29 CFR 1910.1200

RCRA Status: Under RCRA, it is the responsibility of the product user to determine at the time of disposal whether a material containing the product or derived from the product should be classified as a hazardous waste (40 CFR 261.20-24)

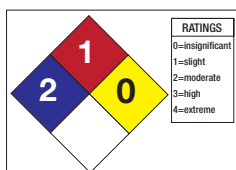
CEPA Canadian Environmental Protection Act: All ingredients in this product are listed on the DSL or are not required to be listed

16. Other Information

All statements, technical information and recommendations contained herein are based upon available scientific test or data which we believe to be reliable since we cannot anticipate all conditions under which this information and our products or the products of other manufacturers in combination with our products may be used. Novion, Inc. makes no warranties, express or implied, and assumes no responsibility in connection with any use of this information.

Personal Protection: B

NFPA Ratings:



HMIS Ratings:



Safety Data Sheet (SDS)**1. Identification**

PRODUCT NAME: RADON SEAL 302 EPOXY SURFACE SEALER, PART B

CHEMICAL FAMILY: Modified Amine

MANUFACTURER / SUPPLIER: Novion Inc
494 Bridgeport Ave
Suite 101-336
Shelton CT 06484

TELEPHONE: 1-800-472-0603

2. Hazard(s) Identification

Signal Word: **WARNING**



Skin Contact: Mild irritation.

Eye Contact: Polyamine resin - conjunctival irritant

Ingestion: Oral LD₅₀: (rat) < 5 CC/KG

Medical Conditions Generally Aggravated by Exposure: Dermatitis; reproductive, asthma, bronchitis, and inflammatory or fibrotic respiratory disease.

Precautionary Statements: Do not handle until all safety precautions have been read and understood. Do not breathe vapors. In case of inadequate ventilation wear respiratory protection. Wear protective gloves and eye protection. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Store locked up. Keep away from children. Dispose of contents and container in accordance with applicable local, regional and national regulations.

Signal Word: **DANGER**



Hazard Statement: Acute: Corrosive. Harmful if in contact with skin. Corrosive to eyes. Corrosive to skin. Severe eye irritant. Severe skin irritant. May cause respiratory sensitization. May cause skin sensitization. Burns of the eye may cause blindness. Contact of undiluted product with the eyes or skin quickly causes severe irritation and pain and may cause burns, necrosis and permanent injury. Inhalation of aerosol, mist or fog may cause harm if inhaled. Inhalation of aerosols and mists may severely damage contacted tissue and produce scarring. Risk of exposure to hazardous concentrations of vapor under normal working conditions in a well ventilated space is minimal. However, conditions such as spraying, or sudden release of hot liquid, which generate an aerosol, mists or fog should be avoided. Product is readily absorbed through the skin and may cause nausea, headache and general discomfort.

Chronic: Prolonged or repeated skin contact may defat the skin and cause dermatitis; allergic reactions may arise in sensitive individuals.

Carcinogenicity: Wollastonite:

NTP: Not classified as a carcinogenic

OSHA: Not classified as a carcinogenic

IARC classifies wollastonite as Group 3, Unclassifiable as to carcinogenicity to humans.

Carcinogenicity: In order to comply with California Proposition 65, we feel obligated to advise that some of our products may conceivably contain trace contaminants of some of the listed chemicals. While not necessarily added to our products as ingredients, some listed chemicals may be present in the raw materials from suppliers and over which we have no control. Therefore, even though some of the listed substances may not be present, a significant risk as defined by the regulations in order to comply with California law, we feel obligated to make the following statement:

Warning: Our products may contain trace amounts of some chemicals considered by the State of California to be carcinogens or reproductive toxicants.

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3. Composition / Information on Ingredients

INGREDIENT	% BY WEIGHT	EXPOSURE LIMITS	CAS #
Proprietary Polyamine	5 - 10	N.E.	UK
Wollastonite	40 - 50	OSHA PEL: 5mg/m ³ ACGIH TLV: 3mg/m ³	13983-17-0
Proprietary Polymercaptan	15 - 25	NE	Trade Secret
Diethylene Triamine	< 5	1 PPM SKIN ACGIH	111-40 0
Inert Powders	< 10		14807-96-6
Fumed Silica	< 5		067762-90-7
Terpene Hydrocarbon	3 - 7	OSHA PEL: 5mg-m ³ ACGIH TLV 3mg/m ³	8002-09-3
Furfuryl Alcohol	1 - 5	NE	Trade Secret

4. First Aid Measures

Eyes: Open lids wide and flush with large quantities of water for at least 15 minutes. Seek immediate medical attention, preferably an eye specialist.

Skin: Immediately deluge skin with plenty of water. Remove and isolate contaminated clothing and shoes at the site. Consult a physician if irritation develops.

Ingestion: *Do not induce vomiting*. Prevent aspiration of vomit (turn victim's head to side). Consult physician

Inhalation: Remove the patient from the contaminated area to fresh air. Administer oxygen or artificial respiration as needed. Seek medical attention.

5. Fire Fighting Measures

Extinguishing Media: Foam, dry chemicals, CO₂. Where the fire is of major proportions, water spray may also be used. Water or foam may cause frothing if liquid is burning, but it still may be a useful extinguishing agent if carefully applied to the fire.

Protective equipment/Special fire fighting procedures: Fire may produce irritation or poisonous gases. Positive pressure self-contained breathing apparatus (SCBA) and structural firefighters' protective clothing will provide limited protection. Keep unnecessary people away; isolate hazard area and deny entry. Stay upwind; keep out of low areas. Isolate for ½ mile in all directions if tank, rail car or tank truck is involved in fire. If runoff from fire control occurs, notify the appropriate authorities. Use water to cool containers.

Explosion Hazards: LEL not determined UEL not determined

6. Accidental Release Measures

Material is Released or Spilled: Ventilate area. Avoid breathing vapor. Wear suitable protective equipment. Contain spill if possible. Absorb with dry chemical absorbent, earth, sand or any other inert material and shovel up. Prevent entering waterways and sewers

Disposal: Any disposal practice must be in compliance with all federal, state and local laws and regulations. Chemical additions, processing, storage, or otherwise altering this material may make the waste management information presented in this SDS incomplete, inaccurate or otherwise inappropriate. Waste characterization and disposal compliance is the responsibility solely of the party generating the waste or deciding to discard or dispose of the material.

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7. Handling and Storage

Storage: Store in cool, well-ventilated area. Keep away from flames, sparks or hot surfaces. *Never use a torch to cut or weld on or near container. Empty containers can contain explosive vapors.* Protect from moisture.

Handling: Avoid contact with skin, eyes, and clothing. Do not take internally. Use personal protective equipment when transferring material to or from drums, totes or other containers. Additional precautions must be used when splash hazards are present. (waterless hand cleaner may be helpful in removing residues)

8. Exposure Controls / Personal Protection

Respiratory Protection: Avoid breathing vapors. NIOSH-approved respirator for organic vapor and mist to control exposure where ventilation is inadequate. Avoid breathing vapors of heated material.

Ventilation: : General and local exhaust.

Eye Protection: Chemical splash goggles or safety glasses with side-shields.

Protective Clothing: Wear impervious clothing and gloves. Materials may include butyl rubber, nitrile rubber, viton, neoprene and Saranex coated Tyvek.

Protective Equipment: Use appropriate equipment to prevent eye or skin contact.

Other Protective Clothing or Equipment: If splashing is anticipated, wear rubber apron and boots or other protective equipment to minimize contact.

9. Physical and Chemical Properties

VP: (mmHg at 70°F) .1

VD: >1 (air = 1)

Color /Appearance: Grey-Black Paste

Odor: Amine/Skunk-like, pinc - 0.1

Flash Point: 172 °F (TCC)

SP GR: 1.55 (water = 1)

% Volatile by VL: < 1%

Boiling Point: 414 °F

Solubility In Water: Appreciable

Evaporation Rate: < 1 (n-butyl acetate = 1)

10. Stability and Reactivity

Stability: Stable.

Reactivity: Incompatibility Materials to Avoid: Mineral acids (i.e. sulfuric, phosphoric, etc.). Organic acids (i.e. acetic acid, citric acid etc.). Oxidizing Agents (i.e. perchlorates, nitrates etc.). Reactive metals (i.e. sodium, calcium, zinc etc.). Sodium or Calcium Hypochlorite. CAUTION! N-Nitrosamines, many of which are known to be potent carcinogens, may be formed when the product comes in contact with nitrous acid, nitrites or atmospheres with high nitrous oxide concentrations. Product slowly corrodes copper, aluminum, zinc and galvanized surfaces. Reaction with peroxides may result in violent decomposition of peroxide possibly creating an explosion. Materials reactive with hydroxyl compounds. Nitrites, nitrosating agents. A reaction accompanied by large heat release occurs when the product is mixed with acids. Heat generated may be sufficient to cause vigorous boiling creating a hazard due to splashing or splattering of hot material.

Hazardous Decomposition Products: CO, CO₂, ammonia and NO_x, nitric acid.

Conditions to Avoid: Exposure to high temperature should be minimized.

Hazardous Polymerization: Will not occur.

Safety Data Sheet (SDS)**11. Toxicological Information**

Toxicological Data: Polyamine Resin

Oral LD0: (rat) LD50-<5 CC/KG

Routes of Entry: Inhalation, Skin absorption..

Acute: Corrosive. Harmful if in contact with skin. Corrosive to eyes. Corrosive to skin. Severe eye irritant. Severe skin irritant. May cause respiratory sensitization. May cause skin sensitization. Burns of the eye may cause blindness. Contact of undiluted product with the eyes or skin quickly causes severe irritation and pain and may cause burns, necrosis and permanent injury. Inhalation of aerosol, mist or fog may cause harm if inhaled. Inhalation of aerosols and mists may severely damage contacted tissue and produce scarring. Risk of exposure to hazardous concentrations of vapor under normal working conditions in a well ventilated space is minimal. However, conditions such as spraying, or sudden release of hot liquid, which generate an aerosol, mists or fog should be avoided. Product is readily absorbed through the skin and may cause nausea, headache and general discomfort.

Chronic: Prolonged or repeated skin contact may defat the skin and cause dermatitis; allergic reactions may arise in sensitive individuals.

Carcinogenic Categories: Wollastonite

NTP: Not classified as a carcinogen

IARC: classifies wollastonite as Group 3, unclassifiable as to carcinogenicity to humans.

OSHA: Not classified as a carcinogen

12. Ecological Information

Comments: material is slightly toxic to aquatic organisms on an acute basis (LC50/EC50 between 10 and 100 mg/L in the most sensitive species tested).

13. Disposal Considerations

Disposal: Any disposal practice must be in compliance with all federal, state and local laws and regulations. Chemical additions, processing, storage, or otherwise altering this material may make the waste management information presented in this SDS incomplete, inaccurate or otherwise inappropriate. Waste characterization and disposal compliance is the responsibility solely of the party generating the waste or deciding to discard or dispose of the material. Materials may become a hazardous waste through use.

Refer to RCRA 4 CFR 261 and/or any other appropriate federal, state or local requirements for proper classification information.

Container Disposal: Drums/containers should be decontaminated and either passed to an approved drum recycler or destroyed.

RCRA/EPA Waste Information:The generation of waste should be avoided or minimized whenever possible. Chemical waste, even small quantities, should never be poured down drains, sewers or waterways.

14. Transport Information

DOT (Domestic surface): Shipping name; Compound resin. Not regulated (Class 55)

IMO (Ocean): Not restricted.

ICAO (AIR): Not restricted.

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15. Regulatory Information

Volatile Organic Content: (Calculated Values)

VOC per liter (mixed per Rule 1168): Not Determined

VOC per liter minus exempt solvents & water: Not Determined

EPA Hazardous Waste Number(s) (40 CFR Part 261): D001

EPA Hazard Category (40 CFR Part 370): IMMEDIATE (ACUTE)
DELAYED (CHRONIC)

SARA TITLE III:

This product contains the following TOXIC CHEMICALS subject to the Reporting Requirements of Sec. 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986, and of 40 CFR Part 372:

Chemical	CAS No.	Wt%
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NONE

This product contains the following EXTREMELY HAZARDOUS SUBSTANCE(S) subject to Emergency Planning Requirements under Sec. 301-303 (40 CFR Parts 300 and 355) and Emergency Release Notification Requirements under Sec. 304:

Chemical	CAS No.	Wt%	RQ/TPQ Lbs
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NONE

This product contains the following (CERCLA LIST) HAZARDOUS SUBSTANCE(S) subject to Emergency Release Notification Requirements under Sec. 304 (40 CFR Part 302):

Chemical	CAS No.	Wt%	Final RQ Lbs
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NONE

CALIFORNIA PROPOSITION 65:

This product may contain trace quantities of the following chemicals that are identified by the State of California under the Safe Drinking Water and Toxic Reinforcement Act of 1986 ("Proposition 65") as either a carcinogenic or reproductive hazard:

Chemical	CAS No.	Estimated Concentration %
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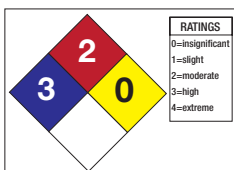
NONE

Although the information contained herein is believed to be reliable, it is furnished without warranty of any kind. This information is not intended to be all-inclusive as to the manner and conditions of use, handling, and storage.

16. Other Information

All statements, technical information and recommendations contained herein are based upon available scientific test or data which we believe to be reliable since we cannot anticipate all conditions under which this information and our products or the products of other manufacturers in combination with our products may be used. Novion, Inc. makes no warranties, express or implied, and assumes no responsibility in connection with any use of this information.

NFPA Ratings:



HMIS Ratings:

