Safety Data Sheet

RCC Corrosion Control / SDS #: RCC-20501-V / Revision Date: 06/01/2022

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: COROFLEX BC VERTICAL RESIN

Chemical Family: Epoxy Resin

Product Use: Coating material

Manufacturer: RCC Corrosion Control
1450 Hoff Industrial Drive
O'Fallon, MO 63366
Phone: 636-697-4659

24-Hour Emergency Phone Number: North America: 800-424-9300 (CHEMTREC)
International: 703-527-3887 (CHEMTREC) Collect Calls Accepted

2. HAZARD IDENTIFICATION

GHS Classifications

Health Hazards
Skin Irritation, Category 2
Eye Irritation, Category 2B
Skin Sensitization, Category 1A
Carcinogenicity, Category 2
Specific Target Organ Systemic Toxicity, Single Exposure, Category 3, Central Nervous System [Inhalation]
Specific Target Organ Systemic Toxicity, Repeated Exposure, Category 2, Central Nervous System, Kidneys, Liver [Inhalation, Skin absorption, Ingestion]

Environmental Hazards
Acute Aquatic Toxicity, Category 2
Chronic Aquatic Toxicity, Category 2

GHS-Labeling
Pictograms:

Signal Word: Danger!

Hazard Statements
H315: Causes skin irritation
H317: May cause an allergic skin reaction
H320: Causes eye irritation
H332: Harmful if inhaled
H336: May cause drowsiness or dizziness
H351: Suspected of causing cancer
H373: May cause damage to organs through prolonged or repeated exposure
H411: Toxic to aquatic life with long lasting effects

Precautionary Statements
Prevention:
P202: Do not handle until all safety precautions have been read and understood.
P233: Keep container tightly closed.
P260: Do not breathe vapors.
P264: Wash skin and exposed areas thoroughly after handling.
P270: Do not eat, drink or smoke when using this product.
P271: Use only outdoors or in a well-ventilated area.
P280: Wear protective gloves/protective clothing/eye protection/face protection.

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.
P321: Specific treatment found in supplemental first aid instruction of this SDS (Section 4).
P333 + P313: If skin irritation or rash occurs: Get medical advice/attention.
P337 + P313: If eye irritation persists: Get medical advice/attention.
P362: Take off contaminated clothing and wash before reuse.
P363: Wash contaminated clothing before reuse.
P391: Collect spillage.

Storage:
There are no specific storage requirements for this material.

Disposal:
P501: Dispose of contents/container in accordance with local, regional, and federal regulations.

3. COMPOSITION/ INFORMATION ON INGREDIENTS

Chemical characterization

Component*	CAS #	Weight %
Propane, 2,2-bis[p-(2,3-epoxypropoxy)phenyl)-, polymers	25085-99-8	65 - 75
Dodecyl & Tetradecyl Glycidyl Ethers	68609-97-2	10 - 20
Phenol-Formaldehyde Polymer, Glycidyl Ether	28064-14-4	5 - 10
Titanium Dioxide	13463-67-7	1 - 5

4. FIRST AID MEASURES:

Inhalation
Symptoms & Effects: Nose, throat and lung irritation, respiratory irritation, nausea, and headache
Measures: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If respiratory symptoms develop or if victim feels unwell, seek medical attention. If breathing is difficult, administer oxygen.

Skin Contact
Symptoms & Effects: Skin irritation, redness, allergic skin reactions, burning sensation, and drying.
Measures: Immediately wash skin with soap and plenty of water. Remove contaminated clothing and shoes while washing. If skin irritation or rash occurs, seek medical advice/attention. Wash contaminated clothing before reuse. Discard of clothing which cannot be decontaminated, including leather articles, such as shoes, belts and watchbands.

Eye Contact
Symptoms & Effects: Eye irritation, tearing, redness, stinging and swelling of the eyes.
Measures: Immediately rinse eyes with water for at least 20 minutes. Remove contact lenses after the initial few minutes and if easy to do so and resume rinsing. Rinse beneath the eyelids by holding eyelids apart with clean fingers. If eye irritation persists, consult a physician, preferably an ophthalmologist.

Ingestion
Symptoms & Effects: Stomach or intestinal irritation, nausea, vomiting, throat irritation, dizziness, drowsiness, headache, and weakness.
Measures: If swallowed, seek medical attention. If individual is drowsy or unconscious, do not give anything by mouth. Place individual on their left side with their head down. Do not induce vomiting unless directed to do so by medical personnel. Do not leave victim unattended.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media: Dry chemical, Carbon dioxide, Alcohol-resistant foam, Water spray (fine)
Unsuitable Extinguishing Media: Water stream

Hazardous Combustion Products: Hydrocarbons, Phenols, Carbon monoxide, Carbon dioxide

Protective Equipment for Fire-Fighters: Wear full firefighting turn-out gear (full Bunker gear), and respiratory protection (SCBA).

Precautions for Fire-Fighters: Use water spray to cool fire exposed containers and fire affected zone until fire is out and danger of re-ignition has passed. Do not use direct water stream as this may spread fire. Move containers away from fire area if possible to do so without hazard. Burning liquids may be moved by flushing with water to protect personnel and minimize property damage. Water fog, applied gently may be used as a blanket for fire extinguishment. Contain fire water run-off if possible as it may cause environmental damage.

6. ACCIDENTAL RELEASE MEASURES:

Protective Equipment: Recommended to wear chemical splash goggles & resistant gloves and discard of gloves that show tears, pinholes, or signs of wear. Wear proper garments to prevent skin exposure, such as long-sleeves and pants.

Personal Precautions: Persons not wearing proper PPE should be excluded from the area of contamination until clean-up has been completed. Ensure adequate ventilation. Eliminate all ignition sources (flares, flames including pilot lights, electric sparks, etc.) Pay close attention to the spreading of gases, especially at ground level.

Environmental Precautions: Do not allow discharge into drains, surface waters, or sanitary sewer system. Prevent spreading over a wide area by containment or oil barriers. Local authorities should be advised if significant spillages cannot be contained or if material discharges into drains or ground water.

Methods & Materials for Clean-Up: Contained spilled material with inert, non-combustible absorbent materials (e.g. sand, earth, diatomaceous earth, vermiculite) or fibers made from propylene or polyethylene. Transfer to a suitable container for disposal according to proper federal, state, and local regulations. Remove residual material with soap and hot water.

7. HANDLING AND STORAGE

Handling: Avoid prolonged or repeated contact with skin. Avoid contact with eyes, skin and clothing. Wash hands and exposed areas thoroughly after handling. Avoid the use of electric band heaters as failures of electric band heaters have been reported to cause drums of liquid epoxy resin to explode and catch fire. Any use of this product in elevated temperature processes should be thoroughly evaluated to establish and maintain safe operating conditions.

Storage: Keep containers away from incompatible materials and excessive heat.

Incompatible Materials: Amines, Acids, Bases, Oxidizing agents

8. EXPOSURE CONTROLS & PERSONAL PROTECTION

Exposure Limits :

Titanium Dioxide	**CAS # 13463-67-7**	
OSHA	Permissible Exposure Limit (PEL)	15 mg/m^3
ACGIH	Time weighted average (TWA)	10 mg/m^3

Engineering Controls: Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposures below permissible exposure limits. Provide readily accessible eye wash stations and safety showers.

Occupational Exposure Controls: Ensure adequate ventilation, especially in confined areas. Consider all potential hazards of this material, applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting PPE. Ensure that eyewash stations and safety showers are proximal to the work location. It is ultimately the responsibility of the employer to follow regulatory guidelines established by local authorities.

Protective and Hygiene measures: Wash hands before breaks and immediately after handling product. When using, do not eat, drink, or smoke. In case of clothes contamination, remove and wash contaminated clothing before re-use. Discard of contaminated leather articles.

Eye Protection: Recommended to wear chemical splash goggles. Have a suitable eye wash station or bottle nearby in case of splashing into the eyes.

Hand Protection: Recommended to wear suitable resistant gloves and discard of gloves that show tears, pinholes, or signs of wear. Suitable gloves will be based on product use and the period of use, and may include neoprene, butyl-rubber, nitrile rubber, etc.
Skin Protection: Recommended to wear long-sleeved clothing, pants and proper foot covering in order to prevent direct skin contact with the product. If skin irritation develops, contact your facility health and safety professional or your local safety equipment supplier to determine the proper personal protective equipment for your use.

Respiratory Protection: A NIOSH-approved air-purifying respirator with an appropriate cartridge and/or filter may be appropriate under certain circumstances where airborne concentrations are expected to exceed exposure limits (if applicable) or if overexposure has otherwise been determined. Protection provided by air-purifying respirators is limited. Use a positive pressure, air-supplied respirator if there is any potential for uncontrolled release, exposure levels are not known or any other circumstances where an air-purifying respirator may not provide adequate protection.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Grey Liquid
Odor: Mild
Odor Threshold: No data available
pH: No data available
Melting/Freezing point: No data available
Boiling point/range: > 572°F (> 300°C)
Flash point (Tag closed cup): > 284°F (> 140°C)
Evaporation rate: No data available
Flammability: Lower Limit: No data available **Upper Limit:** No data available
Vapor pressure: No data available
Relative vapor density: No data available
Density: 1.09 g/cm^3 (9.1 lbs/gal)
Solubility in water: Insoluble
Partition coefficient (n-octanol/water): No data available
Auto-ignition temperature: No data available
Ignition temperature: No data available
Decomposition temperature: No data available
Viscosity (dynamic): No data available

10. STABILITY AND REACTIVITY

Reactivity: No decomposition if stored and applied as directed.

Chemical Stability: Stable under normal conditions.

Possibility of Hazardous Reactions: Product will not undergo hazardous polymerization in isolation. When in contact with aliphatic amines and extensive heat however, product will cause an irreversible polymerization.

Conditions to Avoid: Heat, Flames, Sparks, Ignition sources, Temperatures above 572°F (300°C)

Incompatible Materials: Amines, Acids, Bases, Oxidizing agents

Hazardous decomposition products: Hydrocarbons, Aldehydes, Phenols, Carbon monoxide, Carbon dioxide

11. TOXICOLOGICAL INFORMATION

Primary Routes of Exposure: Inhalation, Eye contact, Ingestion, Skin contact

Symptoms Related to Physical, Chemical and Toxicological Characteristics: Skin irritation, redness, eye irritation, tearing of the eyes, stomach or intestinal irritation, respiratory tract irritation, digestive tract irritation, allergy or asthma symptoms, nose, throat and lung irritation, headache, nausea, dizziness, and vomiting.

Delayed and Immediate Effects & Chronic Effects from Exposure: Based on current data, this product is not anticipated to cause any significant adverse effects.

Measures of Toxicity:
Acute toxicities are calculated based on component toxicities
Mixture: Acute Oral Toxicity: LD_{50} Rat: 10,000 mg/kg
Acute Dermal Toxicity: LD_{50} Rabbit: >11,000 mg/kg
Acute Inhalation Toxicity: LC_{50} Rat: No data available

Carcinogen Claims: (titanium dioxide)
OSHA: **Yes;,** International Agency for Research on Cancer (IARC): **Yes; 2B**
ACGIH: **Yes, A4,** National Toxicology Program (NTP) Report on Carcinogens: **No**

12. ECOLOGICAL INFORMATION

Ecotoxicity: This substance is toxic to aquatic organisms. It is strongly advised that this substance does not enter the environment.

Propane, 2,2-bis[p-(2,3-epoxypropoxy)phenyl]-polymers	**CAS # 25085-99-8**
Toxicity to Fish	LC_{50} – 2 mg/l (Rainbow Trout; 96 h)
Toxicity to Daphnia	EC_{50} – 1.8 mg/l (Water Flea; 48 h)
Toxicity to Algae	ErC_{50} – 11 mg/l (Fresh Water Algae; 72 h)

Dodecyl & Tetradecyl Glycidyl Ethers	**CAS # 68609-97-2**
Toxicity to Daphnia	EC_{50} – 10 mg/l (Water Flea; 48 h)

Persistence & Degradability: Based on component OECD biodegradation tests, this material cannot be considered as readily biodegradable.
Bio-accumulative Potential: No data available
Mobility in Soil: No data available
Other Adverse Effects: No data available

13. DISPOSAL CONSIDERATIONS

Dispose of in accordance with Federal, State or Local regulations.
Contaminated packaging should be emptied as far as possible before disposal.

14. TRANSPORT INFORMATION

DOT SHIPPING CLASSIFICATION:
UN NUMBER: UN3082
PROPER SHIPPING NAME: Environmentally hazardous substance, liquid, n.o.s. (Epoxy resin)
TRANSPORTATION HAZARD CLASS: 9
PACKING GROUP: III
HAZARD LABEL: 9

IMDG (Marine) SHIPPING CLASSIFICATION:
IMDG CODE: 9
UN NUMBER: UN3082
MARINE POLLUTANT: Yes
EmS: F-A; S-F
IMDG PACKING GROUP: III
HAZARD LABEL: 9
Description of the goods
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (EPOXY RESIN)

IATA (Air) SHIPPING CLASSIFICATION:
ICAO/IATA-DGR: 9
UN NUMBER: UN3082
HAZARD LABEL: Miscellaneous
IATA-packing instructions – Passenger: 964
IATA -max. quantity – Passenger: 450 L
IATA – packing instructions – Cargo: 964
IATA –max. quantity – Cargo: 450 L
IAO packing group: III
Limited quantity Passenger: Y964 / 30 kg G
Description of the goods
Environmentally hazardous substance, liquid, n.o.s. (Epoxy resin)

15. REGULATORY INFORMATION

All components of this product conform to the following national inventory requirements. US TSCA, EU EINECS and Canada DSL

SARA Title III
Section 302 – Extremely Hazardous Chemicals
The following ingredients are subject to the supplier notification requirements of Section 302 of the Superfund Amendments and Reauthorization Act (SARA/EPCRA) and the requirements of 40 CFR Part 37 *None Listed*

Section 313 – Toxic Chemicals
The following ingredients are subject to the supplier notification requirements of Section 313 of the Superfund Amendments and Reauthorization Act (SARA/EPCRA) and the requirements of 40 CFR Part 37 *None Listed*

OTHER FEDERAL REGULATIONS

Components of this product are subject to RCRA Hazardous Waste requirements.
Clean Air Act (CAA) Hazardous Air Pollutants requirements and OSHA Process Safety Management (PSM) high hazard requirements.

CANADIAN REGULATIONS

Same as OSHA GHS Classification

STATE REGULATIONS

California Proposition 65
WARNING: This product contains Titanium dioxide, a chemical known to the state of California to cause cancer

The components of this product may be included on the various state hazardous materials lists noted below.

- California Hazardous Substances List/Permissible Exposure List
- California Toxic air contaminants
- Connecticut Permissible Exposure Limits
- Delaware List of Chemicals and RQs
- Hawaii Permissible Exposure Limits
- Idaho Toxic Air Pollutants
- Illinois Toxic Air Contaminants List
- Louisiana Toxic Air Pollutants
- Maine Hazardous Air Pollutants
- Maryland Toxic Air Pollutants for Existing Sources
- Massachusetts Hazardous Substances List
- Michigan Permissible Exposure Limits
- Minnesota Hazardous Substances
- Minnesota Permissible Exposure Limits
- Nebraska Hazardous Air Pollutants

New Jersey RTK Hazardous Substances List/TCPA Extremely Hazardous Substances List
New York List of Hazardous Substances
Ohio Toxic Air Contaminants
Oklahoma Toxic Air Contaminants
North Carolina TAP Emissions Rates Requiring a Permit
Pennsylvania Hazardous Substances List
Rhode Island Toxic Air Contaminants
Tennessee Permissible Exposure Limits
Vermont Hazardous Air Contaminants/Permissible Exposure Limits
Washington Permissible Exposure Limits for Airborne Contaminants.
West Virginia Toxic Air Pollutant List
Wisconsin hazardous Air Contaminants

Note: Entries under Section 15 are not intended to be all inclusive of Federal and State laws and regulations. Please consult the appropriate agencies for further clarification of any requirements.

16. OTHER INFORMATION

Disclaimer: The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.