Safety Data Sheet

RCC Corrosion Control / SDS #: RCC- 20031 / Revision Date: 05/23/2022

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: COROFLAKE 31 NVE RESIN Various Colors

Chemical Family: Novolac Vinyl Ester

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 2A
Respiratory Sensitization, Category 1B
Germ Cell Mutagenicity, Category 2
Carcinogenicity, Category 2
Reproductive Toxicity, Category 2
Specific Target Organ Systemic Toxicity, Single Exposure, Category 2, Central Nervous System, Respiratory Tract [Inhalation, Ingestion, Skin absorption]
Specific Target Organ Systemic Toxicity, Repeated Exposure, Category 2, Central Nervous System, Respiratory Tract [Inhalation, Ingestion, Skin absorption]
Aspiration Hazard, Category 2

Physical Hazards
Flammable Liquid, Category 3

Environmental Hazards
Acute Aquatic Toxicity, Category 2

GHS-Labeling
Pictograms:

Signal Word: Danger!

Hazard Statements
H226: Flammable liquid and vapor
H305: May be harmful if swallowed and enters airways
H315: Causes skin irritation
H319: Causes serious eye irritation
H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled
H341: Suspected of causing genetic defects
H351: Suspected of causing cancer
H361: Suspected of damaging fertility or the unborn child
H371: May cause damage to the central nervous system and respiratory tract
H373: May cause damage to organs prolonged or repeated exposure
H401: Toxic to aquatic life

Precautionary Statements
Prevention:
P201: Obtain special instructions before use.
P202: Do not handle until all safety precautions have been read and understood.
P210: Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P233: Keep container tightly closed.
P240: Ground/bond container and receiving equipment.
P241: Use explosion-proof electrical/ventilating/lighting equipment.
P242: Use only non-sparking tools.
P243: Take precautionary measures against static discharge.
P260: Do not breathe vapors.
P264: Wash hands and exposed areas thoroughly after handling.
P270: Do not eat, drink or smoke when using this product.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P281: Use personal protective equipment as required.
P285: In case of inadequate ventilation, wear respiratory protection.

Response:
P302 + P352: IF ON SKIN: Wash with plenty of soap and water.
P303 + P361 + P353: IF ON SKIN Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P341: IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

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.
P309 + P311: IF exposed or if you feel unwell: Call a POISON CENTER or doctor/physician.
P314: Get medical advice/attention if you feel unwell.
P321: Specific treatment found in supplemental first aid instruction of this SDS (Section 4).
P332 + P313: If skin irritation occurs: Get medical advice/attention.
P337 + P313: If eye irritation persists: Get medical advice/attention.
P342 + P311: If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
P362: Take off contaminated clothing and wash before reuse.
P370 + P378: In case of fire: Use alcohol-resistant foam, dry chemical, carbon dioxide or water spray for extinction.

Storage:
P403 + P235: Store in a well-ventilated place. Keep cool.
P405: Store locked up.

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

3. COMPOSITION/ INFORMATION ON INGREDIENTS

Chemical characterization
Novolac Vinyl Ester

Component*	CAS #	Weight %
Styrene	100-42-5	20 - 30
Titanium Dioxide	13463-67-7	1 - 3
Crystalline Silica, Quartz	14808-60-7	0.1 - 1

4. FIRST AID MEASURES:

Inhalation
Symptoms & Effects: Nose, throat and lung irritation, respiratory tract irritation, nausea, headache, dizziness, and drowsiness.
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.

Skin Contact
Symptoms & Effects: Skin irritation, redness, 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.

Eye Contact
Symptoms & Effects: Eye irritation, tearing, redness, and swelling of the eyes.
Measures: Immediately rinse eyes with water for at least 15 minutes. Remove contact lenses after the initial few minutes and if easy to do so and resume rinsing. Rinse beneath eyelids by holding eyelids apart with clean fingers while rinsing. Seek immediate medical attention.

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

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media: Alcohol-resistant foam, Water spray, Dry chemical, Carbon dioxide

Unsuitable Extinguishing Media: Water stream (See Precautions)

Hazardous Combustion Products: Hydrocarbons, 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: Material is volatile and readily gives off vapors which may travel along the ground or be moved by ventilation and ignited by pilot lights, flames, sparks, heaters, smoking, electric motors, static discharge or other ignition sources. Water may be ineffective for extinguishment unless used under favorable conditions by experienced fire fighters. Use water spray to cool fire exposed containers and structures until fire is out and if it can be done with minimal risk. Avoid spreading burning material with water used for cooling purposes. Polymerization may take place under fire conditions. If polymerization occurs in a closed container, there is a possibility it will rupture violently. Cool storage container with water, if exposed to fire.

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. 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). Transfer to a suitable container for disposal according to proper federal, state, and local regulations. Remove residual material with soap and hot water or other solvents.

7. HANDLING AND STORAGE

Handling: Containers of this material may be hazardous when emptied. Since emptied containers retain product residues, either as vapours, liquids and/or solids, all hazardous precautions mentioned in this SDS must be observed. Static ignition hazards may result from handling and use. Electrically bond and ground all containers, personnel and equipment before transfer or use of material. Special precautions may be necessary to dissipate static electricity for non-conductive containers. Published Auto-ignition temperature values cannot be treated as safe operating temperatures in chemical processes without analysis of the actual process conditions (material, temperature, humidity, pressure, etc.). Any use of this product in elevated temperature processes should be thoroughly evaluated to establish and maintain safe operating conditions. Spills of these organic materials on hot fibrous insulations may lead to lowering of the auto-ignition temperature, possibly resulting in spontaneous combustion.

Emergency showers and eye wash stations should be readily accessible. Adhere to work practice rules established by government regulations. Do not cut, puncture, or weld on or near the container. Avoid breathing vapors and/or aerosols. Avoid contact with skin and eyes. Use only in well-ventilated areas. Use personal protective equipment. When using, do not eat, drink or smoke.

Storage: Keep containers tightly closed in a cool and well-ventilated place, away from incompatible substances.

Incompatible Materials: Acids, Aluminum, Aluminum chloride, Amines, Bases, Copper, Copper alloys, Halogens, Iron chloride, Metal salts, Oxidizing agents, Peroxides

8. EXPOSURE CONTROLS & PERSONAL PROTECTION

Exposure Limits :
Exposure limits have not been established for this product.

Styrene	**CAS # 100-42-5**	
OSHA	Permissible Exposure Limit (PEL)	100 ppm
ACGIH	Threshold Limiting Value (TLV)/(STEL)	20 ppm/85 ppm
NIOSH	Recommended Exposure Limit (REL)	50 ppm
Crystalline Silica	**CAS # 14808-60-7**	
OSHA	Permissible Exposure Limit (PEL)	0.05 mg/m^3 / % Si_2
ACGIH	Threshold Limiting Value (TLV)	0.025 mg/m^3 (respirable)
NIOSH	Recommended Exposure Limit (REL)	0.05 mg/m^3
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: Do not inhale vapors. 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 at all times when using this product. 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: Various Colors Liquid
Odor: Mild
Odor Threshold: No data available
pH: No data available
Melting/freezing point: No data available
Boiling point: 293°F (145°C)
Boiling range: No data available
Flash point (Tag closed cup): 95°F (35°C)
Evaporation rate: No data available
Flammability: Lower Limit: 1.1% (V) **Upper Limit:** No data available
Vapor pressure: 6.0 hPa
Vapor density: > 1 (Air = 1)
Relative density: 1.2 g/cm^3 (10.0 lb/gal) @ 68°F (20°C)
Solubility in water: Insoluble
Partition coefficient (n-octanol/water): No data available
Auto-ignition temperature: 910°F (490°C)
Decomposition temperature: No data available
Viscosity (dynamic): 2,000 – 3,000 cP

10. STABILITY AND REACTIVITY

Reactivity: No decomposition if stored and applied as directed.

Chemical Stability: Stable under normal conditions.

Possibility of Hazardous Reactions: Product can undergo hazardous polymerization in excessive heat. Avoid exposure to excessive heat, peroxides, and polymerization catalysts.

Conditions to Avoid: Excessive heat, Flames, Sparks, Ignition sources, Exposure to sunlight, Exposure to air

Incompatible Materials: Acids, Aluminum, Aluminum chloride, Amines, Bases, Copper, Copper alloys, Halogens, Iron chloride, Metal salts, Oxidizing agents, Peroxides

Hazardous decomposition products: Hydrocarbons, 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: The substance may have effects on the central nervous system respiratory system. This substance is suspected of harming fertility and the unborn child. This substance is suspected of having mutagenic effects based on laboratory animal results. This substance is a potential carcinogen to humans (see below).

Measures of Toxicity:
Acute toxicities are calculated based on component toxicities
Mixture: Acute Oral Toxicity: LD_{50} Rat: No data available
Acute Dermal Toxicity: LD_{50} Rat: No data available
Acute Inhalation Toxicity: LC_{50} Rat: No data available

Carcinogen Claims: (quartz, styrene, titanium dioxide)
OSHA: **Yes; 2,** International Agency for Research on Cancer (IARC): **Yes; 2B**
ACGIH: Yes **A1,** National Toxicology Program (NTP) Report on Carcinogens: **Yes; II**

12. ECOLOGICAL INFORMATION

Ecotoxicity: This substance is toxic to aquatic organisms. It is strongly advised that this substance does not enter the environment.
Persistence & Degradability: No data available
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: UN1866
PROPER SHIPPING NAME: Resin solution, flammable
TRANSPORTATION HAZARD CLASS: 3
PACKING GROUP: III
HAZARD LABEL: 3

IMDG (Marine) SHIPPING CLASSIFICATION:
IMDG CODE: 3
UN NUMBER: UN1866
MARINE POLLUTANT: No
EmS: F-E; S-E
IMDG PACKING GROUP: III
HAZARD LABEL: 3
Description of the goods
RESIN SOLUTION flammable

IATA (Air) SHIPPING CLASSIFICATION:
ICAO/IATA-DGR: 3
UN NUMBER: UN1866
HAZARD LABEL: 3
IATA-packing instructions – Passenger: 355
IATA -max. quantity – Passenger: 60L
IATA – packing instructions – Cargo: 366
IATA –max. quantity – Cargo: 220L
IAO packing group: III
Limited quantity Passenger: Y344 / 10 L
Description of the goods
Resin solution, flammable

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
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

Component	CAS #	Weight %
Styrene	100-42-5	205 - 30

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 (styrene)
WARNING: This product contains chemicals known to the state of California to cause cancer, birth defects, and other reproductive harm.

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.