

Safety Data Sheet

RCC Corrosion Control / SDS #: RCC-23900 / Revision Date: 05/23/2022

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: THIN FILM CURING AGENT (TFCA)

CHEMICAL FAMILY: Vinyl Ester in Styrene solvent

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-Classification

Flammable Liquids, Category 3
Acute Toxicity, Category 4, Inhalation
Eye irritation, Category 2A
Skin irritation, Category 2
Germ cell mutagenicity, Category 2
Carcinogenicity, Category 2
Reproductive toxicity, Category 2
Specific target organ systemic toxicity – single exposure, Category 1, Central Nervous System
Specific target organ systemic toxicity, single exposure, Category 3
Specific target organ systemic toxicity, repeated exposure, Category 1, Blood, Liver, Nervous system,
Respiratory tract/organ
Aspiration Hazard, Category 1
Acute aquatic toxicity, Category 2

GHS-Labeling

Pictogram(s):



Signal Word: Danger

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Hazard Statements

H226: Flammable liquid and vapor
H315: Causes skin irritation
H319: Causes serious eye irritation
H332: Harmful if inhaled
H335: May cause respiratory irritation
H336: May cause drowsiness or dizziness
H361: Suspected of damaging fertility or the unborn child.
H351: Suspected of causing cancer
H372: Causes damage to organs (Blood, Liver, Nervous system, Respiratory tract through 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 dust/fume/gas mist/vapor/spray
P264: Wash skin thoroughly after handling
P270: Do not eat, drink or smoke when using this product
P271: Use only outdoors or in a well-ventilated area
P273: Avoid release to the environment
P280: Wear protective gloves/protective clothing/eye protection/face protection

Response:

P301+ P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
P303 + P361 + P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
P304 + P340: IF INHALED: 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.
P307 + P311: IF exposed: Call a POISON CENTER or doctor/physician.
P321: Specific treatment (see supplemental first aid instructions on this label
P331: D NOT induce vomiting
P332 + P313: If skin irritation occurs: Get medical advice/attention
P337 + P313: If eye irritation persist: Get medical advice/attention
P362: Take off contaminated clothing and wash before reuse
P370 + P378: In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction

Storage:

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P403 + P233: Store in a well-ventilated place. Keep container tightly closed

P405: Store locked up

Disposal:

P501: Dispose of contents/container to an approved waste disposal plant.

3. COMPOSITION/ INFORMATION ON INGREDIENTS

Chemical characterization (Mixture)

Epoxide-vinyl ester-resin in styrene

Component	CAS#	% By Wt.
Styrene	100-42-5	85 - 95

4. FIRST AID MEASURES:

General Information

Move affected person(s) from danger area. Remove contaminated/soaked clothing immediately. In the event of persistent symptoms, seek medical attention. Do not leave the victim unattended. Symptoms of poisoning may only appear several hours later. Show this Safety Data Sheet to the doctor in attendance.

If inhaled: Remove to fresh air. If breathing is difficult administer oxygen. Get immediate medical help.

In case of skin contact: If on skin, rinse well with water. Remove contaminated clothing. Consult a doctor if irritation persists.

In case of eye contact: Immediately flush eye(s) with plenty of water. Remove contact lenses. Hold eyes open and flush with water, including under eyelids, for at least 15 minutes. If irritation persists, seek medical attention.

If swallowed: Keep respiratory tract clear. Induce vomiting only upon the advice of a physician. Do not give milk. Immediately give plenty of water, if possible charcoal slurry. BEWARE, danger of aspiration! Never give anything by mouth to an unconscious person. Get immediate medical help.

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5. FIRE FIGHTING MEASURES

Suitable extinguishing media: Alcohol-resistant foam, carbon dioxide, dry chemical, water spray.

Unsuitable extinguishing media: High volume water jet.

Specific hazards during fire fighting: Do not allow run-off from fire fighting to enter drains or water courses.

Special protective equipment for fire-fighters: Wear self-contained breathing apparatus and protective suit.

Special exposure hazards arising from combustion: Carbon dioxide and carbon monoxide. Irritant/corrosive, flammable, as well as toxic fumes.

Additional information: Vapors are heavier than air and spread along the ground. Vapor/air mixture can be explosive, even in empty containers. Cool containers at risk with water spray. Collect contaminated firefighting water separately. Do not allow to enter drains or water courses. Fire residues and contaminated firefighting water should be disposed of in accordance with local, state, and federal regulations.

6. ACCIDENTAL RELEASE MEASURES:

Personal precautions: In case of vapor formation, use respirator to avoid breathing fumes. Ensure adequate ventilation. Remove any affected persons to safety. Use PPE. Keep all sources of ignition away!

Environmental precautions: Do not discharge into drains, surface waters, or ground water.

Methods for cleanup: Soak spilled material with inert absorbent materials. Transfer to a suitable container for disposal.

7. HANDLING AND STORAGE

Handling

Keep containers tightly closed. Vapors are heavier than air and spread along the ground. Use only in adequately ventilated areas. Keep away from heat and sources of ignition! Do not eat or drink in the work area. Practice good hygiene.

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Storage

Store in original closed containers away from heat and sources of ignition. Avoid storage in areas where the temperature exceeds 122 °F (50 °C). Keep away from food, drink, and animal foodstuffs.

Incompatible with Oxidizing agents, Metal halogenides, and Peroxides. .

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE LIMITS :

Component	CAS#	Reference	Exposure Limits
Styrene	100 42-5	ACGIH OSHA NIOSH	20 ppm, TWA/40 ppm STEL 100 ppm/200 ppm ceiling 50 ppm/100 ppm ceiling

Exposure Controls

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.

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. Treat subsequently with skin cream. Remove and wash contaminated clothing before re-use.

Respiratory protection

If local ventilation is insufficient, wear suitable NIOSH-approved breathing apparatus or respirator.

Hand protection

Chemical protective gloves made of nitrile, nitrile/cotton, butyl, or neoprene, with a minimum thickness of 0.028 inch (0.7 mm), permeation time of approximately 480 minutes (8 hrs.). Requirements may vary as a function of use. Therefore, it is necessary to adhere to the recommendations of the protective glove manufacturer.

Eye protection

Tight fitting goggles are recommended. Have a suitable eye wash station or bottle nearby in case of splashing product into eye(s).

Skin protection

Wear long-sleeved clothing. A solvent-resistant apron is recommended.

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9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Colorless Liquid

Odor: Sweet; Aromatic

Odor Threshold: 0.1 ppm

pH: No data available

Melting/freezing point: -24°F (-31°C)

Initial boiling point: 212°F (100°C)

Boiling range: 212 – 293°F (100 – 145°C)

Flash point (Tag closed cup): 83.0°F (28.3°C)

Evaporation rate: 0.49 n-Butyl Acetate

Flammability: Lower Limit: 1.1% (V) **Upper Limit:** 12.5% (V)

Vapor pressure: 4.5 mmHg @ 68°F (20°C)

Vapor density: 3.6 (Air = 1)

Relative density: 0.909 g/cm³ (7.58 lb/gal) @ 60°F (15.56°C)

Solubility in water: Negligible

Partition coefficient (n-octanol/water): 3.0 log P_{ow}

Auto-ignition temperature: 914°F (490°C)

Decomposition temperature: No data available

Viscosity (dynamic): 0.83 mPa.s @ 20°C

10. STABILITY AND REACTIVITY

Reactivity: No decomposition of stored and applied as directed.

Chemical stability: Stable under normal conditions.

Conditions to avoid: Avoid heat and ignition sources.

Materials to avoid: Oxidizing agents, Metal halides, Peroxides

Hazardous decomposition products: Carbon dioxide, carbon monoxide, as well as flammable, corrosive/irritant, and toxic gases.

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11. TOXICOLOGICAL INFORMATION

Primary routes of exposure: Inhalation, Skin contact, Eye contact. Ingestion is possible, but not likely under normal conditions.

Symptoms related to physical, chemical and toxicological characteristics:

Harmful by inhalation. Inhalation of high vapor concentrations may result in headache, dizziness, drowsiness, nausea, and vomiting.

Causes skin and eye irritation and dermatitis.

Styrene	CAS # 100-42-5
Acute Oral Toxicity	LD ₅₀ Rat: 2650 mg/kg
Acute Dermal Toxicity	LD ₅₀ Rabbit >2000 mg/kg
Acute Inhalation Toxicity	LC ₅₀ Rat: 12 mg/l , 4h

Carcinogen Claims: (styrene)

OSHA: **Yes; 2**, International Agency for Research on Cancer (IARC): **Yes; 2B**

ACGIH: **No; A4**, National Toxicology Program (NTP) Report on Carcinogens: **Yes; II**

12. ECOLOGICAL INFORMATION

Avoid contamination of ground water or waterways. Do not discharge into sewers.

Product is not readily biodegradable. Toxic to aquatic organisms.

May cause long term adverse effects in the aquatic environment.

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: II

HAZARD LABEL: 3

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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

Other applicable information (marine transport)

Viscous substance – excepted quantity if in containers with a capacity up to 30 l (subsection 2.3.2.5 IMDG Code)

IATA (Air) SHIPPING CLASSIFICATION:

ICAO/IATA-DGR: 3

UN NUMBER: UN1866

HAZARD LABEL: 3

IATA-packing instructions – Passenger: 309

IATA-max. quantity – Passenger: 60L

IATA – packing instructions – Cargo: 310

IATA –max. quantity – Cargo: 220L

IAO packing group: III

Limited quantity Passenger: Y309 / 10 L

Description of the goods

RESIN SOLUTION

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

Styrene (1,000 Lbs. RQ)

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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 styrene, 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

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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.