



AR-500 Concrete Resin

SECTION 1. IDENTIFICATION

Product Identifier	AR-500 Concrete Resin
Other Means of Identification	Polymer Concrete Resin
Product Family	Vinyl Ester Resin
Recommended Use	Mixed with other components to form a corrosion-resistant polymer concrete.
Restrictions on Use	None known.
Manufacturer/Supplier Identifier	The Stebbins Engineering and Manufacturing Company, 363 Eastern Boulevard, Watertown, NY, 13601, (315) 782-3000, www.stebbinseng.com
Emergency Phone No.	Chemtrec - Within North America, 1-800-424-9300, 24 hours Stebbins 24 Hour Contact-, 1-315-788-6624
SDS No.	059

SECTION 2. HAZARD IDENTIFICATION

Classification

Flammable liquid - Category 3; Combustible dust - Category 1; Acute toxicity (Oral) - Category 5; Acute toxicity (Dermal) - Category 5; Acute toxicity (Inhalation) - Category 5; Skin irritation - Category 2; Eye irritation - Category 2A; Carcinogenicity - Category 2; Specific target organ toxicity (single exposure) - Category 3; Specific target organ toxicity (repeated exposure) - Category 1; Hazard Not Otherwise Classified (HNOC); Aquatic hazard (Acute) - Category 2

Label Elements



Signal Word:
Danger

Hazard Statement(s):

- H226 Flammable liquid and vapour.
May form combustible dust concentrations in air.
Hazardous polymerization may occur.
- H319 Causes serious eye irritation.
- H315 Causes skin irritation.
- H333 May be harmful if inhaled.
- H372 Causes damage to organs through prolonged or repeated exposure.

Precautionary Statement(s):

- Prevention:
 - P202 Do not handle until all safety precautions have been read and understood.
 - P210 Keep away from heat, sparks, open flames, and hot surfaces. – No smoking.

- P233 Keep container tightly closed.
 P240 Ground/bond container and receiving equipment.
 P241 Use explosion-proof electrical, ventilating, lighting, and other equipment.
 P242 Use only non-sparking tools.
 P243 Take precautionary measures against static discharge.
 P280 Wear protective gloves/protective clothing/eye protection/face protection.
 P403 + P235 Store in a well-ventilated place. Keep cool.
 P501 Dispose of contents and container in accordance with local, regional, national and international regulations.
 P261 Avoid breathing vapours.
 P271 Use only outdoors or in a well-ventilated area.
 P270 Do not eat, drink or smoke when using this product.

Response:

- P302 + P352 IF ON SKIN: Wash with plenty of water.
 P332 + P313 If skin irritation occurs: Get medical advice or attention.
 P304 + P340 IF INHALED: Remove person to fresh air and keep 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.
 P337 + P313 If eye irritation persists: Get medical advice/attention.
 P363 Wash contaminated clothing before reuse.

Storage:

- P402 + P404 Store in a dry place. Store in a closed container.
 P403 + P235 Store in a well-ventilated place. Keep cool.

Disposal:

- P501 Dispose of contents and container in accordance with local, regional, national and international regulations.

Other Hazards

Hazard Not Otherwise Classified (HNOC): Hazardous to the environment.

Hazardous to the environment.

Static accumulating liquid May polymerize vigorously.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture:

Chemical Name	CAS No.	%	Other Identifiers	Other Names
Vinyl Ester Resin	CBI	60 - 70 %	None	None
Styrene	100-42-5	30 - 40 %	None	Styrene Monomer
Dimer/Trimer	800986-5689P	1 - 5 %	None	Oligomer
Copper Salts	1338-02-9	0.5 - 1.5 %	None	metalcarbonylate
Tetramethylammonium Chloride	75-57-0	0.1 - 1 %	None	Tetranethyl-ammonium chloride
Mineral Spirits	8052-41-3	0.02 - 0.05 %	None	petroleum distillates

Notes

Chemical nature: Static Accumulator

Chemical nature: Defatter

SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation

Move to fresh air. Serious Inhalation: Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt, or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek medical attention. Get medical advice or attention if you feel unwell or are concerned.

Product Identifier: AR-500 Concrete Resin - Ver. 7

SDS No.: 059

Date of Preparation: January 07, 2016

Date of Last Revision: June 30, 2023

Page 02 of 12

Skin Contact

Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Wash gently and thoroughly with lukewarm, gently flowing water and mild soap for 5 minutes. Get medical advice or attention if you feel unwell or are concerned. Thoroughly clean clothing, shoes and leather goods before reuse or dispose of safely.

Eye Contact

Rinse the contaminated eye(s) with lukewarm, gently flowing water for 5 minutes, while holding the eyelid(s) open. If eye irritation persists, get medical advice or attention.

Ingestion

Rinse mouth with water. Never give anything by mouth if person is rapidly losing consciousness, or is unconscious or convulsing. Do not induce vomiting. Get medical advice or attention if you feel unwell or are concerned.

First-aid Comments

Get medical advice or attention if you feel unwell or are concerned.

Most Important Symptoms and Effects, Acute and Delayed

If swallowed: aspiration hazard.

If inhaled: at high concentrations can irritate the nose and throat. Symptoms may include headache, nausea, dizziness, drowsiness and confusion.

If on skin: may cause mild irritation.

Immediate Medical Attention and Special Treatment

Target Organs

Respiratory system, skin.

Special Instructions

Not applicable.

Medical Conditions Aggravated by Exposure

None known.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Carbon dioxide, dry chemical powder, appropriate foam, water spray or fog.

Unsuitable Extinguishing Media

Do not use water jet.

Specific Hazards Arising from the Product

Can ignite if strongly heated. Can be ignited by static discharge. May accumulate in hazardous amounts in low-lying areas especially inside confined spaces, resulting in a fire hazard. Closed containers may rupture violently when heated releasing contents. Heating increases the release of toxic vapour.

In a fire, the following hazardous materials may be generated: very toxic carbon monoxide, carbon dioxide; irritating chemicals; toxic chemicals.

Special Protective Equipment and Precautions for Fire-fighters

Approach fire from upwind to avoid hazardous vapours or gases. Polymerization will 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. In the event of fire, wear self-contained breathing apparatus.

Fire-fighters may enter the area if positive pressure SCBA and full Bunker Gear is worn.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

Evacuate the area immediately. Isolate the hazard area. Keep out unnecessary and unprotected personnel. Eliminate all ignition sources if safe to do so. May accumulate in hazardous amounts in low-lying areas especially inside confined spaces, if ventilation is not sufficient. Use the personal protective equipment recommended in Section 8 of this safety data sheet.

Product Identifier: AR-500 Concrete Resin - Ver. 7

SDS No.: 059

Date of Preparation: January 07, 2016

Date of Last Revision: June 30, 2023

Page 03 of 12

Environmental Precautions

It is good practice to prevent releases into the environment. If the spill is inside a building, prevent product from entering drains, ventilation systems and confined areas.

Methods and Materials for Containment and Cleaning Up

Contain and soak up spill with absorbent that does not react with spilled product. Collect using shovel/scoop or approved HEPA vacuum and place in a suitable container for disposal. Place used absorbent into suitable, covered, labelled containers for disposal.

Other Information

Report spills to local health, safety and environmental authorities, as required.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

Keep containers tightly closed when not in use or empty. Eliminate heat and ignition sources such as sparks, open flames, hot surfaces and static discharge. Post "No Smoking" signs. Do NOT eat, drink or store food in work areas. Do NOT smoke in work areas. Only use where there is adequate ventilation. Wash hands thoroughly after handling this product and before eating, using the washroom or leaving work area. Do not get in eyes, on skin or on clothing. Avoid breathing in this product. Prevent skin contact.

Electrically bond and ground equipment. Ground clips must contact bare metal.

Conditions for Safe Storage

Protect from sunlight. Store in an area that is: dry, well-ventilated. Store between: 50°F (10°C) and 81°F (27°C).

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Chemical Name	ACGIH TLV®		OSHA PEL		AIHA WEEL	
	TWA	STEL	TWA	Ceiling	8-hr TWA	TWA
Styrene	20 ppm	40 ppm	100 ppm	200 ppm		

ACGIH TLV: 20 ppm, 8 hour TWA
ACGIH STEL: 40 ppm, 15 minutes

OSHA PEL: 100 ppm, 8 hour TWA
OSHA Ceiling: 200 ppm

Canada:

British Columbia: 50 ppm, 8 hour TWA

Alberta: 50 ppm, 8 hour TWA

Quebec: 50 ppm, 8 hour TWA

Ontario: 50 mg/m³, 8 hour TWA;

213 ppm, 15 minutes

Saskatchewan: 215 ppm, 15 minutes

STYRENE-Exposure-Permissible Concentration

OSHA Z-2 - PEAK - 600 ppm

OSHA P0 - TWA - 50 ppm (215 mg/m³)

OSHA P0 - STEL - 100 ppm (425 mg/m³)

NIOSH REL - TWA - 50 ppm (215 mg/m³)

NIOSH REL - ST - 100 ppm (425 mg/m³)

CAL PEL - C - 500 ppm

CAL PEL - PEL - 50 ppm (215 mg/m³)

CAL PEL - STEL - 100 ppm (425 mg/m³)

TLV® = Threshold Limit Value. TWA = Time-Weighted Average.

STEL = Short-term Exposure Limit. PEL = Permissible Exposure Limits.

Product Identifier: AR-500 Concrete Resin - Ver. 7

SDS No.: 059

Date of Preparation: January 07, 2016

Date of Last Revision: June 30, 2023

Page 04 of 12

Consult local authorities for provincial or state exposure limits. OSHA = US Occupational Safety and Health Administration. ACGIH® = American Conference of Governmental Industrial Hygienists.

Appropriate Engineering Controls

Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below exposure guidelines (if applicable) or below levels that cause known, suspected or apparent adverse effects. Provide appropriate exhaust ventilation at places where dust is formed. Use local exhaust ventilation and enclosure, if necessary, to control amount in the air.

Individual Protection Measures

Eye/Face Protection

When there is potential for eye exposure to Liquid, vapor or mist, wear safety goggles.

Skin Protection

Wear chemical splash goggles when there is the potential for exposure of the eyes to liquid, vapour or mist. Wear resistant gloves (consult your safety equipment supplier). Discard gloves that show tears, pinholes, or signs of wear. Suitable materials are butyl rubber, natural rubber, neoprene rubber, nitrile rubber, polyethylene, polyvinyl, alcohol, Viton®, polyvinyl chloride, cloth, and leather.

Respiratory Protection

Personal protective equipment

Respiratory protection: In the case of vapour formation use a respirator with an approved filter. Wear a NIOSH approved air-purifying respirator with an organic vapour cartridge.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

Appearance	Dark green viscous liquid. Particle Size: Not applicable
Odour	Sweet
Odour Threshold	Not available
pH	~ 4.8
Melting Point/Freezing Point	Not available (melting); Not available (freezing)
Boiling point/Initial boiling point	Not available
Boiling Range	>= 294 °F (146 °C)
Flash Point	70 - 80 °F (21 - 27 °C) (closed cup)
Evaporation Rate	> 1 (diethyl ether = 1)
Flammability (solid, gas)	Not applicable
Upper/Lower Flammability or Explosive Limit	6.1% (upper); 1.1% (lower)
Vapour Pressure	6.398 mm Hg (0.853 kPa) at 25 °C
Vapour Density (air = 1)	3.6
Relative Density (water = 1)	~ 1.05
Solubility	Insoluble in water; Not available (in other liquids)
Partition Coefficient, n-Octanol/Water (Log Kow)	Not available
Auto-ignition Temperature	914 °F (490 °C) (Styrene)
Decomposition Temperature	Not available
Viscosity	> 20.5 mm ² /s (kinematic); Not available (dynamic)
Other Information	
Physical State	Liquid
Bulk Density	~ 67 lb/ft ³ (1 kg/L)
Surface Tension	Not available
Critical Temperature	Not available

Product Identifier: AR-500 Concrete Resin - Ver. 7

SDS No.: 059

Date of Preparation: January 07, 2016

Date of Last Revision: June 30, 2023

Page 05 of 12

Vapour Pressure at 50 deg C	Not available
Saturated Vapour Concentration	Not available
Other Physical Property 1	Flammability (Solid, gas): May form combustuble dust concentrations in air (during processing).
Other Physical Property 2	Flammability (Liquid): Static accumulating liquid

SECTION 10. STABILITY AND REACTIVITY

Reactivity

Not sensitive to mechanical impact. Not reactive under normal conditions of use.

Chemical Stability

Normally stable. No Decomposition if: stored and applicted as directed.

Possibility of Hazardous Reactions

None expected under normal conditions of storage and use. May polymerize violently: With vapours and fine dust in sufficient concentrations, and in the presence of an ignition source. This may cause an explosion.

Conditions to Avoid

Open flames, sparks, static discharge, heat and other ignition sources. Prolonged storage. Prolonged exposure to high temperatures. >100°F (38°C) sunlight. Temperatures below 32.0 °F (0.0 °C) and above 100.0 °F (37.8 °C)

Incompatible Materials

Avoid: strong acids (e.g. hydrochloric acid), organic acids (e.g. acetic acid), inorganic acids (e.g. hydrofluoric acid), strong bases (e.g. sodium hydroxide), halogens (e.g. chlorine), oxidizing agents (e.g. peroxides), copper alloys, copper. Iron chloride, metal salts.

Hazardous Decomposition Products

Very toxic carbon monoxide, carbon dioxide; toxic chemicals; irritating chemicals. hydrocarbons.

SECTION 11. TOXICOLOGICAL INFORMATION

Information presented below is for the entire product, unless otherwise specified. Information on likely routes of exposure inhalation, skin absoption. Eye Contact ingestion. Acute toxicity (oral): Not classified

Acute toxicity (dermal): Not classified

Acute toxicity (inhalation): Not classified

May be fatal by: ingestion.

Likely Routes of Exposure

Inhalation; skin contact; skin absorption; eye contact.

Acute Toxicity

Chemical Name	LC50	LD50 (oral)	LD50 (dermal)
Styrene	~ 11.8 mg/L (rat) (4-hour exposure) (vapour)	> 2,000 mg/kg (female rat)	> 2,000 mg/kg (rat)

LC50 (Inhalation)

(Styrene):

Acute inhalation toxicity:

LC50 (Rat): 11.8 mg/l, 2770 ppm

Exposure time: 4 h

Test atmosphere: vapour

No observed adverse effect level (Humans): 100 ppm

Exposure time: 7 h

Test atmosphere: vapour

LD50 (Oral)

Styrene:

Acute oral toxicity:

Product Identifier: AR-500 Concrete Resin - Ver. 7

SDS No.: 059

Date of Preparation: January 07, 2016

Date of Last Revision: June 30, 2023

Page 06 of 12

LD50 Oral (Rat): > 2,000 mg/kg
tetramethylammonium chloride:
Acute oral toxicity: LD50 (Rat): 47 mg/kg
Dimer/Trimer:
Acute oral toxicity: LD50 > 2,000 mg/kg (Rat)
Method: OECD Test Guideline 423
GLP: yes

Assessment: Not classified as acutely toxic by ingestion under GHS.

tetramethylammonium chloride:
Acute oral toxicity: LD50 (Rat): 47 mg/kg

LD50 (Dermal)

(Styrene):
LD50 (Rat): > 2,000 mg/kg
Method: OECD Test Guideline 402
Assessment: No adverse effect has been observed in acute dermal toxicity tests.

tetramethylammonium chloride:
LD50 (Rabbit): > 200 - < 500 mg/kg

Skin Corrosion/Irritation

Human experience shows mild irritation. Remarks: Repeated exposure may cause skin dryness or cracking. May cause skin irritation and/or dermatitis.

Styrene:
Species: Rabbit
Result: Irritating to skin.
Species: human skin
Result: No skin irritation
DIMER / TRIMER:
Species: reconstructed human epidermis (RhE), Method: OECD Test Guideline 439 Result: No skin irritation
GLP: yes
tetramethylammonium chloride:
Result: Irritating to skin.

Serious Eye Damage/Irritation

Remarks: Vapours may cause irritation to the eyes, respiratory system and the skin., Causes serious eye irritation.

(Styrene) may cause serious eye irritation based on information for closely related materials.

DIMER / TRIMER:
Species: Bovine cornea
Result: No eye irritation
Method: OECD Test Guideline 437
GLP: yes

Tetramethylammonium chloride:
Result: Slight, transient irritation.

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation

A high concentration can displace oxygen in the air. If less oxygen is available to breathe, symptoms such as rapid breathing, rapid heart rate, clumsiness, emotional upsets and fatigue can result. As less oxygen becomes available, nausea and vomiting, collapse, convulsions, coma and death can occur. Symptoms occur more quickly with physical effort. Lack of oxygen can cause permanent damage to organs including the brain and heart. At high concentrations harmful effects on the liver, nose and throat irritation.

Skin Absorption

Method: Maximisation Test
Components:
Styrene:

Product Identifier: AR-500 Concrete Resin - Ver. 7
Date of Preparation: January 07, 2016
Date of Last Revision: June 30, 2023

SDS No.: 059

Page 07 of 12

Exposure routes: Skin contact
Species: Guinea pig
Assessment: Does not cause skin sensitisation.

Result: negative
Exposure routes: inhalation (vapour)
Species: Humans
Assessment: Does not cause respiratory sensitisation

Result: negative.

Ingestion

Styrene:
It may be fatal if swallowed and enters the airways. Tetramethylammonium chloride:
Exposure routes: Ingestion
Target Organs: Central nervous system
Assessment: Causes damage to organs.

Aspiration Hazard

May be drawn into the lungs (aspirated) if swallowed or vomited.

STOT (Specific Target Organ Toxicity) - Repeated Exposure

May cause harmful effects on the liver, irritation of the respiratory system. May cause respiratory tract injury. May cause effects on the central nervous system. May cause Symptoms may include dry, red, cracked skin (dermatitis).

(Styrene) repeated dose toxicity

Components: Styrene:

Species: Human

85 mg/m³

Application Route: inhalation (vapor)

At high concentrations may cause hearing loss.

Respiratory and/or Skin Sensitization

Not a respiratory sensitizer. Not a skin sensitizer.

Carcinogenicity

Styrene has been tested for carcinogenicity in rats and mice. Styrene caused lung tumors in mice only. These tumors are not considered to be relevant to humans.

California Proposition 65. (Styrene) IARC: Group 2B – Possibly carcinogenic to humans.

(Styrene) NTP: Reasonably anticipated human carcinogen.

OSHA: No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

Key to Abbreviations

IARC = International Agency for Research on Cancer. NTP = National Toxicology Program. OSHA = US Occupational Safety and Health Administration.

Reproductive Toxicity

Development of Offspring

Conclusions cannot be drawn from the limited studies available.

Sexual Function and Fertility

Conclusions cannot be drawn from the limited studies available.

Effects on or via Lactation

Does not cause effects on or via lactation.

Germ Cell Mutagenicity

Not known to be a mutagen. Conclusions cannot be drawn from the limited studies available.

Interactive Effects

Components:

DIMER / TRIMER:

Genotoxicity in vitro:

Product Identifier: AR-500 Concrete Resin - Ver. 7

SDS No.: 059

Date of Preparation: January 07, 2016

Date of Last Revision: June 30, 2023

Page 08 of 12

Test Type: Chromosome aberration test in vitro
Test species: Human lymphocytes
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 473
Result: negative
GLP: yes:
Test Type: Ames test
Test species: Salmonella typhimurium
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative
GLP: yes:
Test Type: in vitro assay
Test species: Chinese hamster fibroblasts
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 476
Result: negative
GLP: yes.

Other Information

Styrene:
May be fatal if swallowed and enters airways.

SECTION 12. ECOLOGICAL INFORMATION

This material should be considered toxic to aquatic organisms.

Ecotoxicity

Acute aquatic toxicity Category 2; Toxic to aquatic life Ecotoxicology Assessment Short-term (acute) aquatic hazard

Components:

Styrene:

Toxicity to fish:

LC50 (*Pimephales promelas* (fathead minnow)): 4.02 mg/l

Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates.

EC50 (*Daphnia magna* (Water flea)): 4.7 mg/l

Exposure time: 48 h

Toxicity to algae:

ErC50 (*Pseudokirchneriella subcapitata* (green algae)): 4.9 mg/l

Exposure time: 72 h

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity):

NOEC (*Daphnia magna* (Water flea)): 1.01 mg/l

Exposure time: 21 days

Toxicity to bacteria:

EC50 (activated sludge): ca. 500 mg/l

Exposure time: 0.5 h

Toxicity to soil-dwelling organisms:

NOEC (*Eisenia fetida* (earthworms)): 34 mg/kg

Exposure time: 14 d

Method: OECD Test Guideline 207

tetramethylammonium chloride:

Toxicity to fish:

LC50 (*Pimephales promelas* (fathead minnow)): 462 mg/l

Exposure time: 96 h, Test Type: flow-through test

Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates:

LC50 (*Daphnia magna* (Water flea)): 3.6 mg/l

Exposure time: 48 h, Test Type: static test

Product Identifier: AR-500 Concrete Resin - Ver. 7

SDS No.: 059

Date of Preparation: January 07, 2016

Date of Last Revision: June 30, 2023

Page 09 of 12

Method: OECD Test Guideline 202 Toxicity to algae:
 EC50 (Pseudokirchneriella subcapitata (microalgae)): 115 mg/l
 End point: Growth inhibition, Exposure time: 72 h, Test Type: static test, Method: OECD Test Guideline 201
 Remarks: Information given is based on data obtained from similar substances.
 NOEC (Pseudokirchneriella subcapitata (microalgae)): 7.5 mg/l
 End point: Growth inhibition, Exposure time: 72 h, Test Type: static test, Method: OECD Test Guideline 201
 Remarks: Information given is based on data obtained from similar substances.
 Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity):
 NOEC (Daphnia magna (Water flea)): 0.03 mg/l, Exposure time: 11 d
 End point: Reproduction Test, Test Type: semi-static test.
 Ecotoxicology Assessment
 Short-term (acute) aquatic hazard:
 Acute aquatic toxicity Category 2; Toxic to aquatic life.
 Long-term (chronic) aquatic hazard:
 Not classified based on available information. Components:
 DIMER / TRIMER:
 Toxicity to fish:
 LC50 (Cyprinus carpio (Carp)): > 38 mg/l
 Exposure time: 96 h
 Test Type: semi-static test
 Test substance: WAF
 Method: OECD Test Guideline 203
 GLP: yes
 Remarks: No toxicity at the limit of solubility
 Toxicity to daphnia and other aquatic invertebrates:
 (Daphnia magna (Water flea)): Exposure time: 48 h
 Test Type: static test.
 Method: OECD Test Guideline 202
 GLP: yes.

Persistence and Degradability

(Styrene) Biodegradability: Readily Biodegradation: >60%, 10 days.
 (Dimer/Trimer) Biodegradability: Not readily.
 (Tetramethylammonium Chloride) Biodegradability: Readily Biodegradation: 100%, 28 days Method: OECD Test Guideline 301A.

Bioaccumulative Potential

(Styrene) bio-concentration factor (BCF): <100 n-Octanol/Water Partition Coefficient (Log Kow): 2.96 77 F (25 C).

Mobility in Soil

(Styrene) Soil/water partition coefficient (Koc) 352.

Other Adverse Effects

Toxic to aquatic life.
 Product:
 Additional ecological information:
 An environmental hazard cannot be excluded in the event of unprofessional handling or disposal., Toxic to aquatic life.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods

Resins that are fully polymerized are considered to be toxicologically and ecologically inert and should be disposed of properly. Contact local environmental authorities for approved disposal or recycling methods in your jurisdiction.

SECTION 14. TRANSPORT INFORMATION

Regulation	UN No.	Proper Shipping Name	Transport Hazard Class(es)	Packing Group
------------	--------	----------------------	----------------------------	---------------

US DOT	UN1866	resin solution, flammable	3	III
IMO (Marine)	UN1866	resin solution, flammable	3	III
IATA (Air)	UN1866	resin solution, flammable	3	III
Canadian TDG	UN1866	resin solution, flammable	3	III

Environmental Hazards Not applicable (Styrene)

Special Precautions Not applicable

Transport in Bulk according to International Maritime Organization Instruments

Not applicable

Emergency Response Guide No. 127

SECTION 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations

HMIS classifications: health-2 flammability 3 physical Hazard 2

NFPA classification:

Health-2 flammability 3 instability 2 specific hazards- Blank cERCLA Reportable Quantity component: Styrene CAS-No. 100-42-5

Component RQ 1,000 lbs. Calculated product RQ 2961 (lbs)

SARA 304 Extremely Hazardous Substances Reportable Quantity

Component: HYDROQUINONE CAS-No. 123-31-9

Component RQ 100 lbs. Calculated product RQ *lbs

*: Calculated RQ exceeds reasonably attainable upper limit.

Canada

Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)

All ingredients are listed on the DSL or are not required to be listed.

USA

Toxic Substances Control Act (TSCA) Section 8(b)

All ingredients are listed on the TSCA Inventory.

Additional USA Regulatory Lists

Reporting levels established by SARA Title III, Section 313:

Styrene: CAS# 100-42-5 30 - 40 %

SARA Title III - Section 311/312: Reactivity Hazard Fire Hazard Acute Health Hazard Chronic Health Hazard

California Proposition 65: WARNING: This product can expose you to chemicals including styrene, benzene, which is/are known to the State of California to cause cancer, and ethanediol, benzene, toluene, which is/are known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Massachusetts Right To Know:

New Jersey Right To Know:

Pennsylvania Right To Know.

Custom Regulatory 1

The components of this product are reported in the following inventories:

TSCA: On the inventory, or in compliance with the inventory

DSL: This product contains one or several components that are not on the Canadian DSL and have annual quantity limits.

AICS: On the inventory, or in compliance with the inventory

ENCS: On the inventory, or in compliance with the inventory

KECI: On the inventory, or in compliance with the inventory

PICCS: Not in compliance with the inventory

IECSC: On the inventory, or in compliance with the inventory

REACH: On the inventory, or in compliance with the inventory

Product Identifier: AR-500 Concrete Resin - Ver. 7

SDS No.: 059

Date of Preparation: January 07, 2016

Date of Last Revision: June 30, 2023

Page 11 of 12

NZIOC: On the inventory, or in compliance with the inventory
TCSI: On the inventory, or in compliance with the inventory

SECTION 16. OTHER INFORMATION

NFPA Rating	Health - 2	Flammability - 3	Instability - 2
	Based on	Styrene	
SDS Prepared By	B.E.R		
Phone No.	(315) 782-3000		
Date of Preparation	January 07, 2016		
Date of Last Revision	June 30, 2023		
Revision Indicators	Revision 7 Updated: . Toxicological, Ecological, and Exposure Controls/Personal Protection Information		
Key to Abbreviations	reviewed and approved ACGIH® = American Conference of Governmental Industrial Hygienists HSDB® = Hazardous Substances Data Bank IARC = International Agency for Research on Cancer NFPA = National Fire Protection Association NIOSH = National Institute for Occupational Safety and Health NTP = National Toxicology Program OSHA = US Occupational Safety and Health Administration RTECS® = Registry of Toxic Effects of Chemical Substances		
References	CHEMINFO database. Canadian Centre for Occupational Health and Safety (CCOHS). HSDB® database. US National Library of Medicine. Available from Canadian Centre for Occupational Health and Safety (CCOHS). NIOSH Pocket Guide database. National Institute for Occupational Safety and Health. Available from Canadian Centre for Occupational Health and Safety (CCOHS). Registry of Toxic Effects of Chemical Substances (RTECS®) database. Dassault Systèmes/BIOVIA ("BIOVIA"). Available from Canadian Centre for Occupational Health and Safety (CCOHS).		
Disclaimer	NOTE: The information contained herein is, to the best of our knowledge, accurate and reliable. However, no warranty is expressed or implied regarding the accuracy of this information, or the results to be obtained from the use thereof.		

Product Identifier: AR-500 Concrete Resin - Ver. 7
Date of Preparation: January 07, 2016
Date of Last Revision: June 30, 2023

SDS No.: 059

Page 12 of 12