

SAFETY DATA SHEET



465 Vinyl Ester Polymer Concrete, Part B, Resin

Date Issued : 05/14/2015

SDS No : SCC-465B

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: 465 Vinyl Ester Polymer Concrete, Part B, Resin**PRODUCT DESCRIPTION:** Vinyl Ester Polymer Concrete, Part B, Resin**PRODUCT CODE:** 465LB**PRODUCT FORMULATION NAME:** 465 Vinyl Ester Polymer Concrete, Part B, Resin**CHEMICAL FAMILY:** Epoxy Methacrylate Resin**MANUFACTURER**

Sauereisen
160 Gamma Drive
Pittsburgh, PA 15238

Emergency Contact: John Kozak**Emergency Phone:** (800)444-8235**Alternate Contact:** Don Schubert**Customer Service:** 412 963-0303**E-Mail:** jakozak@sauereisen.com**24 HR. EMERGENCY TELEPHONE NUMBERS**

Poison Control Center (Medical):1-800-222-1222

CHEMTREC (US Transportation): 1-800-424-9300

CHEMTREC (Canada Transportation):1-703-527-3887

2. HAZARDS IDENTIFICATION

GHS CLASSIFICATIONS**Health:**

Carcinogenicity, Category 2

Target Organ Toxicity (Repeated exposure), Category 2

Skin Irritation, Category 2

Eye Irritation, Category 2B

Physical:

Flammable Liquids, Category 3

GHS LABEL

Flame

Health
hazard**SIGNAL WORD:** WARNING**HAZARD STATEMENTS**

H226: Flammable liquid and vapour.

H315: Causes skin irritation.

H320: Causes eye irritation.

H351: Suspected of causing cancer.

H373: May cause damage to liver, kidneys or spleen through prolonged or repeated exposure.

PRECAUTIONARY STATEMENTS**Prevention:**

P201: Obtain special instructions before use.

P202: Do not handle until all safety precautions have been read and understood.

P260: Do not breathe dust/fume/gas/mist/vapours/spray.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P264: Wash ... thoroughly after handling.

P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P233: Keep container tightly closed.

P240: Ground and bond container and receiving equipment.

P241: Use explosion-proof [electrical/ventilating/lighting/...] equipment.

P242: Use non-sparking tools.

P243: Take action to prevent static discharges.

Response:

P314: Get medical advice/attention if you feel unwell.

P308+P313: IF exposed or concerned: Get medical advice/ attention.

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.

P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

P332+P313: If skin irritation occurs: Get medical advice/attention.

P321: Specific treatment (see ... on this label).

P362: Take off contaminated clothing.

P370+P378: In case of fire: Use carbon dioxide, foam, dry chemicals, or water spray to extinguish.

Storage:

P405: Store locked up.

P403+P235: Store in a well-ventilated place. Keep cool.

Disposal:

P501: Dispose of contents/container in accordance with local/national regulations.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Wt.%	CAS
Styrene	< 45	100-42-5
2-propenoic acid, 2-methyl-, polymer with 1,3-butadiene, 2-(chloromethyl)oxirane, 4,4'-(1-methylethylidene)bis[phenol] and 2-propenenitrile	< 62	68492-68-2

4. FIRST AID MEASURES

EYES: Check for and remove all contact lenses. Flush eyes immediately with water or physiological saline for at least 15 minutes while lifting upper and lower lids. Do not use eye ointment. Seek medical attention.

SKIN: Wash promptly with soap and water. If soaked through clothing, promptly remove clothing and wash skin. Launder clothing before reuse. Discard saturated shoes and leather clothing. For severe exposures, get under safety hower after removing clothing. Do not apply greases or ointments. Seek medical attention for incidents of significant exposure or if effects apparent.

INGESTION: If swallowed, do not induce vomiting. Give large quantities of water. Seek medical attention immediately. Never give anything by mouth to an unconscious person.

INHALATION: If difficulty breathing, move to fresh at air once. Apply artificial respiration if breathing has stopped. Seek medical attention.

SIGNS AND SYMPTOMS OF OVEREXPOSURE

EYES: Can cause redness, tearing, Irritation, inflammation and corneal opacity.

SKIN: Contact causes skin irritation.

SKIN ABSORPTION: Absorbed through skin. Moderate irritant. Prolonged or repeated contact can cause dryness, defatting and dermatitis. Prolonged exposure can stain skin.

INGESTION: Ingestion may cause nausea, vomiting or weakness.

INHALATION: Excessive inhalation of vapors can cause nasal and respiratory tract irritation, headache, nausea, fatigue and drowsiness.

ACUTE EFFECTS: Exposure may aggravate asthma, other respiratory disorders (bronchitis, emphysema, and bronchial hyper-reactivity) skin allergies and eczema.

ADDITIONAL INFORMATION:

Since this product is a mixture, there is no exposure limit established for it. Hazardous components and their associated permissible exposure limits are listed in the section titled 'Composition and Data on Components'. Specific health hazards from the various ingredients include metallic taste, stomach or intestinal upset (nausea, vomiting, diarrhea), irritation (nose, throat, airways), central nervous system depression (dizziness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness) and other central nervous system effects, loss of coordination, confusion, liver damage.

The International Agency for Research on Cancer (IARC) has identified styrene as a possible human carcinogen. The IARC determination is based on "limited evidence" in animals and other "relevant data". IARC concedes there is "inadequate evidence" on humans for its findings. The significance of these results for humans has not been established.

Styrene is not expected to cause cancer in humans at concentrations below the recommended exposure standard or when appropriate industrial hygiene procedures are followed. Moreover, studies in humans exposed for long periods of time to styrene have not demonstrated any carcinogenic effects. At the conclusion of a major notice and comment rulemaking revising its air contaminants regulations, OSHA concluded that the "current evidence on styrene's carcinogenicity does not support its classification in the final rule as a carcinogen". In the same rulemaking, the National Institute for Occupational Safety and Health (NIOSH) commented that there "seems to be little basis from experimental animal investigations for epidemiological studies to conclude at this time that styrene is carcinogenic". The National Toxicology Program does include styrene on its' list of chemicals expected to be carcinogenic.

5. FIRE FIGHTING MEASURES

FLAMMABLE CLASS: Flammable

GENERAL HAZARD: Flammable in presence of open flame, sparks, excessive heat and static discharge.

EXTINGUISHING MEDIA: Water fog, foam, carbon dioxide, and dry chemicals.

HAZARDOUS COMBUSTION PRODUCTS: Combustion products may be toxic.

EXPLOSION HAZARDS: Dusts and aerosols at sufficient concentrations may exhibit explosive characteristics if ignited by static discharge or spark. Exercise care during dusting or misting operations such as grinding or drilling.

FIRE FIGHTING PROCEDURES: Water or foam may cause frothing which can be violent and possibly endanger the life of the firefighter, especially if sprayed into containers of hot burning liquid. Wear self-contained breathing apparatus with a full facepiece operated in pressure demand or other positive pressure mode when fighting fires.

FIRE FIGHTING EQUIPMENT: Toxic fumes will be evolved when this material is involved in a fire. Self-contained breathing apparatus should be available for fire fighters.

FIRE EXPLOSION: Containers may explode in heat of fire; cool containers with water. Vapors are heavier than air and may travel along the ground or may be moved by ventilation and ignited by pilot lights, other flames, sparks, heaters, smoking, electrical motors, static discharge, or other ignition sources at locations distant from material handling point.

SENSITIVE TO STATIC DISCHARGE: Sensitive to static discharge.

SENSITIVITY TO IMPACT: None

HAZARDOUS DECOMPOSITION PRODUCTS: May form toxic, unknown organic compounds, carbon dioxide and carbon monoxide during combustion.

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILL: Absorb liquid on paper, vermiculite, floor absorbent, or other absorbent material and transfer to hood.

LARGE SPILL: Eliminate all ignition sources (flares, flames, including pilot lights, electrical sparks). Stop spill at source, dike area of spill to prevent spreading. Pump liquid to salvage tank. Remaining liquid may be taken up with sand, clay, earth, floor absorbent, or other absorbent material and shoveled into containers.

7. HANDLING AND STORAGE

GENERAL PROCEDURES: Avoid contact with eyes, skin, and clothing. For industrial use only! Harmful if inhaled. Do not take internally. May cause irritation. Do not eat, drink or smoke when using this product. Wear chemical splash goggles, gloves and protective clothing. Avoid high ambient temperatures and humidity. Wash thoroughly after handling.

STORAGE: Store in a cool, dry place.

Keep container closed when not in use.

Store away from direct heat and flame.

Keep away from food and drinking water.

Store out of direct sunlight.
 DO NOT SMOKE where product is used or stored.
 Store in a well-ventilated place.
 Do not store in reactive metal containers.
 Do not store near acids.
 Always mix well before using.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE GUIDELINES

OSHA HAZARDOUS COMPONENTS (29 CFR1910.1200)				
Chemical Name	EXPOSURE LIMITS		ppm	mg/m ³
	Type			
Styrene	OSHA PEL	TWA	100	420
		STEL	200	
	ACGIH TLV	TWA	20	85
		STEL	40	170
2-propenoic acid, 2-methyl-, polymer with 1,3-butadiene, 2-(chloromethyl)oxirane, 4,4'-(1-methylethylidene)bis[phenol] and 2-propenenitrile	OSHA PEL	STEL	100	
	ACGIH TLV	TWA	40	

ENGINEERING CONTROLS: Provide adequate general or local ventilation to keep vapors below PELs. Control vapor concentration & keep below PEL and accepted TLVs if established. Spark-proof fans not required.

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: Splashproof, chemical resistant safety goggles or face shield. Eye bath nearby. Contact lenses should not be worn.

SKIN: Impervious gloves, neoprene, or other suitable long sleeved and legged clothing. Launder clothing before reuse.

RESPIRATORY: Use NIOSH approved mist respirator where spray occurs. For emergencies, a self contained breathing apparatus or a full-face respirator is recommended. If TLV of any component is exceeded, use appropriate respiratory protection or ventilate in accordance with OSHA Regulation 29 CFR 1910.

WORK HYGIENIC PRACTICES: Wash thoroughly after handling. Safety shower and eyewash station should be within direct access. Keep containers closed.

OTHER USE PRECAUTIONS: Provide adequate general and local exhaust ventilation to meet PEL requirements. provide workers with dust respirators for use in emergency or non-routine situations where dust levels may exceed PEL. A NIOSH approved half face-piece respirator can be used up to 10x PEL. For up to 100x PEL, use a full face-piece respirator with replaceable dust filters. Higher exposures need an approved air-supplied regulator.

9. PHYSICAL AND CHEMICAL PROPERTIES

ODOR: Mild phenolic

APPEARANCE: Viscous liquid

COLOR: Amber

pH: Not Established

PERCENT VOLATILE: 45

FLASH POINT AND METHOD: (73°F) to (100°F)

FLAMMABLE LIMITS: 1.1% to 6.1%

VAPOR PRESSURE: 24.55 mm Hg at (68°F)

VAPOR DENSITY: 24.55

BOILING POINT: (294°F)

MELTING POINT: Not Established

SOLUBILITY IN WATER: Insoluble

EVAPORATION RATE: Not Established

SPECIFIC GRAVITY: 1.04 to 1.06 at 25°C

(VOC): 98.2

10. STABILITY AND REACTIVITY

REACTIVITY: Yes

HAZARDOUS POLYMERIZATION: Heat will speed polymerization. Oxygen-free environment may cause polymerization.

Although this material is inhibited, the vapors may be uninhibited and may collect in vents and other confined spaces where it may polymerize.

STABILITY: Stable under normal conditions of use and storage.

CONDITIONS TO AVOID: Avoid temperatures in excess of 100 F, flame, sparks, and static electricity. Avoid acids, alkalines and oxidizers. This material can undergo hazardous polymerization.

HAZARDOUS DECOMPOSITION PRODUCTS: May form toxic, unknown organic compounds, carbon dioxide and carbon monoxide during combustion.

INCOMPATIBLE MATERIALS: Avoid contact with strong acids, alkalis, oxidizers and transition metal salts, Promoters/accelerators and reducing agents.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

DERMAL LD₅₀: No data is available on the product itself.

Notes: Components:

Styrene: LD50 (rabbit): >20,000 mg/kg, practically non-toxic

N, N - Dimethylbenzenamine LD50 (rabbit): 1,770 mg/kg

Cobalt Naphthenate: LD50 (rabbit) : 1,260 to 2,000 mg/kg

ORAL LD₅₀: 5000 mg/kg (rat)

SERIOUS EYE DAMAGE/IRRITATION: Eye, Skin and Inhalation Irritant.

RESPIRATORY OR SKIN SENSITISATION: Skin and Respiratory sensitizer.

CARCINOGENICITY

IARC: Styrene is possibly carcinogenic to humans (Group 2B). The Working Group found limited evidence in humans and limited evidence in experimental animals for the carcinogenicity. Evidence from mechanistic studies did not contribute in making the overall classification decision.

NTP:

The National Toxicology Program classified Styrene as reasonably anticipated to be a human carcinogen based on limited evidence of carcinogenicity from studies in humans, sufficient evidence of carcinogenicity from studies in experimental animals, and supporting data on mechanisms of carcinogenesis.

12. ECOLOGICAL INFORMATION

AQUATIC TOXICITY (ACUTE): TLM 96 100 -1000 ppm

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Waste must be disposed of in accordance with federal, state, and local environmental control regulations.

EMPTY CONTAINER: Empty containers must be handled with care due to product residue. Do not pressurize, cut, weld, braze, solder, drill, grind or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty drums should be completely drained (less than one inch of residue), properly bunged and promptly returned to a drum reconditioner, or properly disposed of.

14. TRANSPORT INFORMATION

DOT (DEPARTMENT OF TRANSPORTATION)**PROPER SHIPPING NAME:** Resin Solution**PRIMARY HAZARD CLASS/DIVISION:** 3**UN/NA NUMBER:** UN1866**PACKING GROUP:** III**LABEL:** Flammable Liquid**ROAD AND RAIL (ADR/RID)****PROPER SHIPPING NAME:** Resin Solution**UN NUMBER:** UN1866**HAZARD CLASS:** 3**PACKING GROUP:** III**LABEL:** Flammable Liquid**AIR (ICAO/IATA)****SHIPPING NAME:** Resin Solution**UN/NA NUMBER:** UN1866**PRIMARY HAZARD CLASS/DIVISION:** 3**PACKING GROUP:** III**LABEL:** Flammable Liquid**VESSEL (IMO/IMDG)****SHIPPING NAME:** Resin Solution**UN/NA NUMBER:** UN1866**PRIMARY HAZARD CLASS/DIVISION:** 3**PACKING GROUP:** III**LABEL:** Flammable Liquid**CANADA TRANSPORT OF DANGEROUS GOODS****SHIPPING NAME:** Resin Solution**UN/NA NUMBER:** UN1866**PRIMARY HAZARD CLASS/DIVISION:** 3**PACKING GROUP:** III**LABEL:** Flammable Liquid**15. REGULATORY INFORMATION****UNITED STATES****SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)****311/312 HAZARD CATEGORIES:** Acute. Chronic. Fire Hazard. Reactive Hazard. Release of Pressure. Toxic.**313 REPORTABLE INGREDIENTS:** Styrene * 100-42-5 * <45% Max weight.

Cobalt Napthanate * 61789-51-3 * <0.2% Max Weight

EPCRA SECTION 313 SUPPLIER NOTIFICATION

Chemical Name	Wt.%	CAS
Styrene	< 45	100-42-5

TITLE III NOTES: None above detection limits.**CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT)**

Chemical Name	Wt.%	CERCLA RQ
Styrene	< 45	1,000

CERCLA RQ: 1000 lb (454 kg) final RQ for Styrene

TSCA (TOXIC SUBSTANCE CONTROL ACT)

Chemical Name	CAS
Styrene	100-42-5
2-propenoic acid, 2-methyl-, polymer with 1,3-butadiene, 2-(chloromethyl)oxirane, 4,4'-(1-methylethylidene)bis[phenol] and 2-propenenitrile	68492-68-2

TSCA STATUS: Components are included in the EPA Toxic Substances Control Act (TSCA) Chemical Substances Inventory.

CALIFORNIA PROPOSITION 65: Known to the State of California to cause cancer or reproductive toxicity and subject to warning and discharge requirements under the "Safe Drinking Act of 1986".

It has not been determined and cannot be ascertained that this product would not expose users to the listed chemicals at the very low level prescribed in the regulations. Therefore, it is the user's responsibility to determine if the percent of the hazardous / carcinogenic ingredients listed elsewhere in the SDS comply with State of California regulations.

CANADA

WHMIS HAZARD SYMBOL AND CLASSIFICATION



Combustible
Liquid



Toxic

R10: Flammable.

R2: Risk of explosion by shock, friction, fire or other sources of ignition.

R36/37/38: Irritating to eyes, respiratory system and skin.

R5: Heating may cause an explosion.

S16: Keep away from sources of ignition — No smoking.

S20/21: When using do not eat, drink or smoke.

S23: Do not breathe gas/fumes/vapour/spray (appropriate wording to be specified by the manufacturer).

S24/25: Avoid contact with skin and eyes.

S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S36/37/39: Wear suitable protective clothing, gloves and eye/face protection.

WHMIS CLASS: Class B, Division 2, Flammable Liquid.

Class D, Division 2, Subdivision B: Materials cause other toxic effects, toxic material.

DOMESTIC SUBSTANCE LIST (INVENTORY): Components included on inventory

16. OTHER INFORMATION

PREPARED BY: John A Kozak **Date Prepared:** 05/14/2015

HMIS RATING

HEALTH	<input type="checkbox"/>	3
FLAMMABILITY		3
PHYSICAL HAZARD		0
PERSONAL PROTECTION		H