

SAFETY DATA SHEET



465 Vinyl Ester Polymer Concrete, Part A, Hardener

Date Issued : 05/13/2015

SDS No : SCC-465A

Date Revised : 01/23/2017

Revision No : 2

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: 465 Vinyl Ester Polymer Concrete, Part A, Hardener**PRODUCT DESCRIPTION:** Vinyl Ester Polymer Concrete, Part A, Hardener**PRODUCT CODE:** 465LA**PRODUCT FORMULATION NAME:** 465 Vinyl Ester Polymer Concrete, Part A, Hardener**CHEMICAL FAMILY:** Organic Peroxide**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:**

Eye Corrosion, Category 1
Skin Irritation, Category 2
Respiratory Tract Irritation, Category 3
Acute Toxicity (Inhalation), Category 4
Acute Toxicity (Oral), Category 4

Physical:

Flammable Liquids, Category 4
Self-Reactive Substances and Mixtures, Type D
Organic Peroxides, Type D
Oxidizing Liquids, Category 3

GHS LABEL

Flame



Corrosion

Exclamation
markFlame over
circle**SIGNAL WORD:** DANGER**HAZARD STATEMENTS**

H242: Heating may cause a fire.
H227: Combustible liquid.
H272: May intensify fire; oxidizer.
H318: Causes serious eye damage.
H315: Causes skin irritation.
H302: Harmful if swallowed.
H332: Harmful if inhaled.

PRECAUTIONARY STATEMENTS**Prevention:**

- P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P280: Wear protective gloves/protective clothing/eye protection/face protection.
 P220: Keep away from clothing and other combustible materials.
 P234: Keep only in original packaging.
 P264: Wash ... thoroughly after handling.
 P270: Do not eat, drink or smoke when using this product.
 P261: Avoid breathing dust/fume/gas/mist/vapours/spray.
 P271: Use only outdoors or in a well-ventilated area.

Response:

- P301+P312: IF SWALLOWED: Call a POISON CENTER/ doctor/...if you feel unwell.
 P330: Rinse mouth.
 P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 P312: Call a POISON CENTER/doctor/...if you feel unwell.
 P302+P352: IF ON SKIN: Wash with plenty of water/...
 P332+P313: If skin irritation occurs: Get medical advice/attention.
 P321: Specific treatment (see ... on this label).
 P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P310: Immediately call a POISON CENTER/doctor/...
 P362: Take off contaminated clothing.
 P370+P378: In case of fire: Use carbon dioxide, foam, dry chemicals, or water spray to extinguish.

Storage:

- P403+P235: Store in a well-ventilated place. Keep cool.
 P420: Store separately.
 P410: Protect from sunlight.
 P405: Store locked up.
 P411: Store at temperatures not exceeding 30°C / 86°F.

Disposal:

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

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Wt.%	CAS
Hydrogen Peroxide	< 5	7722-84-1
2-butanone	< 5	78-93-3
2-butanone, peroxide	< 33	1338-23-4
propanoic acid, 2-methyl-, 1,1'-[2,2-dimethyl-1-(1-methylethyl)-1,3-propanediyl] ester	< 20	6846-50-0
Water	< 5	7732-18-5

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. For acute overexposure, give oxygen if breathing is difficult. Apply artificial respiration if breathing has stopped. Keep patient warm and at rest. Seek immediate medical attention.

SIGNS AND SYMPTOMS OF OVEREXPOSURE

EYES: Contact may cause severe damage including possible blindness.

SKIN: Severe skin irritant, and sensitizer. Contact causes severe irritation and pain, may cause burns and permanent injury.

INHALATION: Inhalation of vapors may severely damage tissue and produce scarring.

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

ADDITIONAL INFORMATION: Speed is important in beginning first aid treatment. Contact with this material causes severe eye burns and possible blindness, but permanent damage may be reduced if the flushing process is started immediately after contact.

5. FIRE FIGHTING MEASURES

FLAMMABLE CLASS: Combustible Liquid

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

EXTINGUISHING MEDIA: Water spray, 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: Do not enter confined fire space without full bunker gear (helmet with face shield, bunker coats, gloves and rubber boots), including a positive pressure NIOSH approved self-contained breathing apparatus. Cool fire exposed containers with water.

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.

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

Temperatures at or above 169F can result in self accelerating decomposition, products of which are flammable and may autoignite

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILL: Eliminate sources of ignition and ventilate spill area. Wear skin, eye and respiratory protection during clean-up. Use non-sparking tools. Absorb with dry, inert material.

LARGE SPILL: Eliminate all ignition sources (flares, flames, including pilot lights, electrical sparks). Persons not wearing protective equipment should be excluded from area of spill until clean up has been completed. Stop spill at source, dike are 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! 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.
- Use explosion protected equipment.
- Keep away from sources of ignition.
- Use non-sparking tools.
- Do not weld on or near container, even when empty.

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.

For maximum quality store below 86 F

Store away from combustible and incompatible materials.

Self-Accelerating Decomposition Temperature (SADT): the lowest temperature at which the tested package size will undergo a self-accelerating decomposition reaction. The length of time required to initiate the reaction is dependent upon how much the SADT had been exceeded and the time required for the reaction exotherm to initiate the decomposition. SADT is typically inversely proportional to package size, as larger packages have a smaller ratio of heat transfer area (e.g. surface area of package) to volume of product.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE GUIDELINES

OSHA HAZARDOUS COMPONENTS (29 CFR1910.1200)				
EXPOSURE LIMITS				
Chemical Name	Type		ppm	mg/m ³
Hydrogen Peroxide	OSHA PEL	TWA	1	1.4
	ACGIH TLV	TWA	1	1.4
	Supplier OEL	TWA	NL	NL
		STEL	NL	NL
2-butanone	OSHA PEL	TWA	200	590
	ACGIH TLV	TWA	200	590
		STEL	300	885
2-butanone, peroxide	OSHA PEL	TWA	0.7	
	ACGIH TLV	TWA	0.2	

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 are 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: Suitable protective gloves (neoprene, butyl rubber, or viton). Clothing should be clean, long-sleeved workclothes. Synthetic apron. Boots. Wash thoroughly before eating, smoking, applying cosmetics, etc. Thoroughly launder work clothes before reuse. Safety shower nearby.

RESPIRATORY: Use organic vapor cartridges in respirators or self-contained breathing apparatus at high concentrations. If TLV of any component is exceeded use appropriate respiratory protection or ventilate in accordance with OSHA Regulation 29 CFR Part 1910.V.

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

9. PHYSICAL AND CHEMICAL PROPERTIES

ODOR: Faint Ketone

APPEARANCE: Liquid

COLOR: Clear

FLASH POINT AND METHOD: (151°F)

BOILING POINT: Decomposes

THERMAL DECOMPOSITION: 45 pound carton

SOLUBILITY IN WATER: Insoluble

SPECIFIC GRAVITY: 1

OXIDIZING PROPERTIES: Active Oxygen Content: 8.7 - 9.0%

10. STABILITY AND REACTIVITY

REACTIVITY: No

HAZARDOUS POLYMERIZATION: None Expected.

STABILITY: Unstable

CONDITIONS TO AVOID: Avoid contact with strong acids, alkalis, oxidizers and transition metal salts. Promoters/accelerators and reducing agents may result in a violent decomposition reaction and/or product degradation.

HAZARDOUS DECOMPOSITION PRODUCTS: Temperatures at or above SADT can result in the release of hazardous decomposition products which are flammable and may auto-ignite, along with oxides of carbon.

INCOMPATIBLE MATERIALS: (Materials to Avoid) water, amines, strong bases and alcohols. Will cause some corrosion to copper alloys and aluminum.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

DERMAL LD₅₀: 4000 mg/kg (rabbit)

ORAL LD₅₀: 484 mg/kg (rat)

INHALATION LC₅₀: 17-50 mg/L 4 hours (rat)

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

RESPIRATORY OR SKIN SENSITISATION: Skin and Respiratory sensitizer.

GERM CELL MUTAGENICITY: No Data Available

REPRODUCTIVE TOXICITY: No Data Available

STOT-REPEATED EXPOSURE: Repeated oral administration of Methyl Ethyl Ketone Peroxide was reported to result in decreased body weight, mild liver and kidney injury and death in rats. Following repeated application of MEKP in Dimethyl Phthalate to the skin of rats and mice, severe skin damage and animal deaths (only at the highest dose levels) were the primary effects. Spleen and bone marrow changes considered secondary to the severe skin damage were noted in animals at the high doses. Higher doses applied to rat and mouse skin for a shorter time produced similar effects. Long-term repeated skin application of MEKP in Dimethyl Phthalate was reported to enhance skin tumor production in mice irradiated with UVB.

12. ECOLOGICAL INFORMATION

BIOACCUMULATION/ACCUMULATION: None Expected.

AQUATIC TOXICITY (ACUTE): No data is available on the product itself.

Notes:

Methyl Ethyl Ketone Peroxide is slightly toxic to guppies (96 hr LC₅₀ 44.2 mg/L). It is practically non-toxic to goldfish, brine shrimp, Daphnia magna, fathead minnow, mosquito fish, bluegill sunfish and golden orfe (LC_{50s} >1000 mg/L). This material inhibits fungal growth and is reported to be bacteriostatic to several microorganisms (Escherichia Coli, Salmonella Thermophilus) at levels of 10 to 100 mg/L. Growth inhibition has also been reported for freshwater algae at levels ranging from 120 mg/L (blue-green algae) to 4,300 mg/L (green algae).

CHEMICAL FATE INFORMATION: This material was reported to be readily biodegradable in a closed bottle system. EC₅₀ of 16mg/L was reported in an activated sludge respiration inhibition test.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Material should be disposed of as hazardous waste in accordance with Federal, state and local environmental regulations. Dispose of containers with any amount of liquid material as hazardous waste. Dilution followed by incineration is the preferred disposal method. Dilute 10:1 with a clean compatible and combustible solvent, e.g. #2 fuel oil or mineral oil, to reduce reactivity hazards during incineration, handling and transportation.

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.

14. TRANSPORT INFORMATION**DOT (DEPARTMENT OF TRANSPORTATION)**

PROPER SHIPPING NAME: Organic Peroxide Type D, Liquid (9% Active Oxygen)

PRIMARY HAZARD CLASS/DIVISION: 5.2

UN/NA NUMBER: UN3105

PACKING GROUP: N/A

LABEL: Organic Peroxide

ROAD AND RAIL (ADR/RID)

PROPER SHIPPING NAME: Organic Peroxide Type D, Liquid (9% Active Oxygen)

UN NUMBER: UN3105

HAZARD CLASS: 5.2

PACKING GROUP: N/A

LABEL: Organic Peroxide

AIR (ICAO/IATA)

SHIPPING NAME: Organic Peroxide Type D, Liquid (9% Active Oxygen)

UN/NA NUMBER: UN3105

PRIMARY HAZARD CLASS/DIVISION: 5.2

PACKING GROUP: N/A

LABEL: Organic Peroxide

VESSEL (IMO/IMDG)

SHIPPING NAME: Organic Peroxide Type D, Liquid (9% Active Oxygen)

UN/NA NUMBER: UN3105

PRIMARY HAZARD CLASS/DIVISION: 5.2

PACKING GROUP: N/A

LABEL: Organic Peroxide

CANADA TRANSPORT OF DANGEROUS GOODS

SHIPPING NAME: Organic Peroxide Type D, Liquid (9% Active Oxygen)

UN/NA NUMBER: UN3105

PRIMARY HAZARD CLASS/DIVISION: 5.2

PACKING GROUP: N/A

LABEL: Organic Peroxide

15. REGULATORY INFORMATION**UNITED STATES****DOT LABEL SYMBOL AND HAZARD CLASSIFICATION**



Oxidizing

R20/21/22: Harmful by inhalation, in contact with skin and if swallowed.

R8: Contact with combustible material may cause fire.

R41: Risk of serious damage to eyes.

S3/9/14/49: Keep only in the original container in a cool, well-ventilated place away from...

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

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

S38: In case of insufficient ventilation, wear suitable respiratory equipment.

S15: Keep away from heat.

S17: Keep away from combustible material.

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

311/312 HAZARD CATEGORIES: Acute. Fire Hazard. Reactive Hazard.

313 REPORTABLE INGREDIENTS: Dimethyl Phthalate * 131-22-3 * 50%

Hydrogen Peroxide * 7722-84-1 * <2%

TITLE III NOTES: Hydrogen Peroxide * 7722-84-1 * <5

CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT)

Chemical Name	Wt.%	CERCLA RQ
2-butanone	< 5	5,000
2-butanone, peroxide	< 33	10

TSCA (TOXIC SUBSTANCE CONTROL ACT)

Chemical Name	CAS
Hydrogen Peroxide	7722-84-1
2-butanone	78-93-3
2-butanone, peroxide	1338-23-4
propanoic acid, 2-methyl-, 1,1'-[2,2-dimethyl-1-(1-methylethyl)-1,3-propanediyl] ester	6846-50-0
Water	7732-18-5

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



Toxic

Combustible
Liquid

Oxidizing

Dangerously
reactive
materials

R20/21/22: Harmful by inhalation, in contact with skin and if swallowed.

R8: Contact with combustible material may cause fire.

R41: Risk of serious damage to eyes.

S3/9/49: Keep only in the original container in a cool, well-ventilated place.

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

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

S38: In case of insufficient ventilation, wear suitable respiratory equipment.

S15: Keep away from heat.

S17: Keep away from combustible material.

WHMIS CLASS: Class B, Division 3, Combustible Liquid.

Class C, Oxidizing Material.

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 Revised:** 01/23/2017

REVISION SUMMARY: This SDS replaces the 06/28/2016 SDS. Revised: **Section 9: SPECIFIC GRAVITY.**

HMIS RATING

HEALTH	<input type="text" value="1"/>	<input type="text" value="3"/>
FLAMMABILITY	<input type="text" value="1"/>	<input type="text" value="2"/>
PHYSICAL HAZARD	<input type="text" value="1"/>	<input type="text" value="0"/>
PERSONAL PROTECTION	<input type="text" value="1"/>	<input type="text" value="H"/>