

SAFETY DATA SHEET

Version 20.0

Issue Date 12/30/19

1. PRODUCT AND COMPANY INFORMATION

- 1.1 Product Identifier:** Creteseal® MAX Part A
Chemical Name/Class: Modified Epoxy Resin
- 1.2 Relevant Identified Uses of the Substance or Mixture:**
Creteseal® MAX is a two-component moisture mitigation system that penetrates and mechanically bonds to properly prepared concrete, creating a durable coating to control moisture.
- 1.3 Supplier of the SDS:** OBEX Co. I 680 G St. Ste. C I Jacksonville, OR 97530 I Phone: 844-265-3535 I www.obexco.com
- 1.4 Emergency Phone Number: For Hazardous Materials [or Dangerous Goods] Incident Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night 1-800-424-9300 / +1 703-527-3887**

2. HAZARDS IDENTIFICATION

2.1 GHS Classification of the substance or mixture:

Skin irritation (Category 2), H315
Skin sensitizer (Category 1), H317
Eye irritation (Category 2A), H319
Aquatic acute toxicity (Category 2), H402
Chronic aquatic toxicity (Category 2), H402

2.2 GHS Label elements, including precautionary statements:

2.2.1 Hazard Pictogram:

GHS07

2.2.2 Signal Word:

Warning

2.2.3 Hazard statements:

H303 + H333: May be harmful if swallowed or if inhaled
H312 + H315 + H317: Harmful if in contact with skin; May cause skin irritation or allergic reaction
H319: Causes serious eye irritation
H335: May cause respiratory irritation
H402: Harmful to aquatic life

2.2.4 Precautionary statements:

P260 + 261: Do not / avoid breathing dust/fume/gas/mist/vapors/spray.
P264: Wash skin thoroughly after handling.
P271: Use only outdoors or in a well-ventilated area.
P272: Contaminated work clothing should not be allowed out of the workplace.
P273: Avoid release into the environment.
P280: Wear protective gloves/protective clothing/eye protection.
P301+312: IF SWALLOWED: Rinse mouth. Call a doctor/ physician if you feel unwell.
P302 + P352: IF ON SKIN: Wash with plenty of soap and water.
P332 + P333 + P313: If skin irritation or rash occurs, get medical attention/advice.
P333 + P363: If skin irritation or rash occurs, wash contaminated clothing before re-use.
P304 + P312: IF INHALED: Call a POISON CENTER or doctor/physician if you feel unwell.
P304 + P340: IF INHALED: Remove person 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.
P337 + P313: If eye irritation persists, get medical attention/advice.
P362: Take off contaminated clothing and wash before reuse.
P391 + P501: Collect spillage and always dispose of contents/container in accordance with local/regional/national international regulations.
P403 + P233: Store in a well-ventilated place. Keep container tightly closed.

2.3 Hazards not otherwise classified (HNOX) or not covered by GHS: No data available.

2.4 Unknown Acute Toxicity: No data available.

3. COMPOSITION INFORMATION ON INGREDIENTS

3.1 Substances:



Component	Product Identifier	Concentration	GHS Classification
Phenol, 4,4'-(1-methylethylidene)bis-,polymer with (chloromethyl)oxirane	(CAS# 25068-38-6)	60-100%	See Section 2.1 for details
Oxirane, mono[(C12-14-alkyloxy)methyl] derives	(CAS# 68609-97-2)	7-13%	See Section 2.1 for details
Neopentyl glycol diglycidyl ether	(CAS# 17557-23-2)	7-13%	See Section 2.1 for details

Water and other ingredients present in less than 1% concentration in this product

3.2 VOC Levels: VOC Component = 0 grams/liter. As applied as part of a multi-component system = 0 grams/liter.

4. FIRST AID MEASURES

- 4.1 Description of first aid measures:** General: Use with adequate ventilation. Consult a physician if any irritation persists.
If inhaled: Inhalation may potentially cause irritation of mucous membranes. Move to fresh air. If irritation persists, contact a physician. **In case of skin contact:** Wash with plenty of warm soapy water. Avoid prolonged or repeated contact with skin. Remove contaminated clothing, preferably under a safety shower, and wash contaminated clothing before re-use. Promptly seek medical attention. **In case of eye contact:** Immediately flush with water liberally for at least 15 minutes. Remove contact lenses if present and easy to do so. Promptly seek medical attention. **If swallowed:** Give plenty of water to drink. Promptly seek medical attention. DO NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.
- 4.2 Most important symptoms and effects, both acute and delayed:** See labeling section 2.2.
- 4.3 Indication of any immediate medical attention and special treatment needed:**
 Promptly seek medical attention if exposure occurs. Treat exposure symptomatically.

5. FIREFIGHTING MEASURES

- 5.1 Suitable Extinguishing Media:** For large fires use water spray, alcohol-resistant foam, carbon dioxide (CO₂), or dry chemicals.
- 5.2 Special hazards arising from the substance or mixture:**
 Run off from fire control may cause pollution. Keep fire-exposed containers cool with water spray to prevent rupture due to excessive heat. High pressure water hose may spread product from broken containers increasing contamination. If involved in a fire, this product may decompose to produce a variety of compounds (i.e. carbon monoxide, carbon dioxide, aldehydes, nitrogen oxides and compounds). Products of combustion are irritating to the respiratory tract and may cause breathing difficulty. Symptoms may be delayed several hours or longer depending on the extent of exposure.
- 5.3 Advice for firefighters:** Exercise caution. Firefighters should wear full protective gear including respiratory protection. Determine the need to evacuate or isolate the area according to your local emergency plan. Use water spray to keep fire-exposed containers cool.

6. ACCIDENTAL RELEASE MEASURES

- 6.1 Personal precautions, protective equipment and emergency procedures:**
 Uncontrolled releases should be responded to by trained personnel using pre-planned procedures. Use personal protective equipment including impermeable gloves, chemically resistant suit, and hard-hat. Avoid breathing vapors, mist or gas; self-contained breathing apparatus or respirator may be required where engineering controls are not adequate or conditions for potential exposure exist. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. For personal protection see Section 8.
- 6.2 Environmental precautions:**
 Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.
- 6.3 Methods and materials for containment and cleaning up:**
 Stop the leak and absorb spill. Ventilate the space involved. Shut off or remove all ignition sources if possible. For large spills, provide diking or other appropriate containment to keep material from spreading. If diked material can be pumped, then collect with an electrically protected vacuum cleaner or by wet-brushing and place in suitable, closed container(s) for disposal according to federal, state, and local regulations (see Section 13). Do not allow material to run off work area, excess material should be absorbed or vacuumed and disposed of in accordance with regulations. For small spills use noncombustible absorbent material such as polyps or other suitable absorbent materials. Neutralize residue with sodium bicarbonate and water rinse. Decontaminate the area thoroughly. Test area with litmus paper to confirm neutralization. Place all residue into suitable container for disposal according to federal, state, and local regulations (see Section 13).
- 6.4 Reference to other sections:** For disposal see Section 13.

7. HANDLING AND STORAGE

- 7.1 Precautions for safe handling:**

Avoid contact with skin and eyes. Avoid breathing vapor, mist, dust, or fumes. Use with adequate ventilation. Open container slowly on a stable surface. Containers of this product must be properly labeled. Keep container tightly closed when not in use. Empty containers may contain residual liquid, therefore empty containers should be handled with care. For precautions see Section 2.2.

7.2 Conditions for safe storage, including any incompatibilities:

Store containers in a cool dry location away from direct sunlight, sources of intense heat, or where freezing is possible.

7.3 Specific end use(s): See Section 1.2.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control Measures and Engineering Controls:

Use a local or general mechanical exhaust ventilation system capable of maintaining emissions below the levels that may cause irritation. No data is available establishing biological limit values.

8.2 Individual Protection Measures:

Wear protective clothing impervious to this material including protective gloves to avoid skin exposure. Wear chemical goggles for eye protection. Safety showers and eyewash stations should be located in immediate work area. Remove contaminated clothing immediately, wash skin area with soap and water, and launder clothing before reuse. Contaminated leather items such as shoes, belts, and watchbands, should be removed and destroyed.

Respiratory Protection: Wear respirator if there is potential for airborne exposure, or inadequate ventilation; check with respirator equipment manufacturer for limitations of respirator.

Eye protection: slash goggles or safety glasses. Face shields are recommended when the operations can generate splashes of sprays or mists.

Hand Protection: Wear appropriate gloves for routine industrial use. Use appropriate gloves for spill response, as stated in Section 6.

Body Protection: Use body protection appropriate for task. Cover-alls, rubber aprons, or chemical protective clothing made from natural rubber are generally acceptable depending on circumstances.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: clear/light amber liquid solution	Upper/lower flammability or explosive limits: NE
Odor: slight	Vapor pressure (1.3mmHg): ND
Odor threshold: No data available	Vapor density (air=1): ND
pH: No data available	Specific Gravity (water=1): 1.12
Melting point/freezing point: < 0°C (32°F)	Solubility: moderately soluble
Initial boiling point: ND	Partition coefficient: n-octanol/water: No data available
Flash point: >154°C (310°F) Closed cup	Auto-ignition temperature: No data available
Evaporation rate: ND	VOC Content: 0 g/L
Flammability: ND	Viscosity: ND

10. STABILITY AND REACTIVITY

10.1 General: This product is stable under normal conditions.

10.2 Conditions to Avoid: Avoid exposure or contact to extreme temperatures and incompatible chemicals.

10.3 Incompatible Material: Can react strongly with strong acids, isocyanates or epoxy resins at elevated temperatures.

10.4 Decomposition products: Thermal decomposition products of this solution can include a variety of compounds (i.e. carbon monoxide, carbon dioxide, aldehydes, nitrogen oxides and other compounds).

10.5 Hazardous Polymerization: Will not occur. Considerable exothermic reaction with amine resins is possible.

11. TOXICOLOGICAL INFORMATION

11.1 Likely routes of exposure: Target organs include eyes, skin, mucous membranes, and lungs.

11.2 Toxicity Data: Additional toxicology information for components greater than 1 percent in concentration is provided below.

	CAS 25068-38-6	CAS 68608-97-2	CAS 17557-23-2
Acute Oral Effects (LD50):	(Rat) > 2,000 mg/kg	(Rat) >19,000 mg/kg	(Rat): 2,000 mg/kg
Acute Dermal Toxicity (LD50):	(Rabbit) > 2,000 mg/kg	(Rabbit) > 4,500 mg/kg	(Rabbit): >2,150
Inhalation (LC50)			
Skin Irritation:	(Rabbit) Slight Irritation	(Rabbit) Moderate Irritation	Moderate skin irritation

Eye Irritation:	(Rabbit) Slight Irritation	(Rabbit) Mild Irritation	Mild eye irritation
Sensitization:		May cause sensitization by skin contact	May cause sensitization by skin contact
Mutagenicity:	1) Test: OECD 471 Bacterial Reverse Mutation Test; Experiment: In vitro Subject: Bacteria Metabolic activation: +/- ; Result: Positive 2) Test: OECD 476 <i>In Vitro</i> Mammalian Cell Gene Mutation Test; Experiment: In vitro Subject: Mammalian-Animal Cell: Somatic Metabolic activation: +/-; Result: Positive 3) Test: OECD 478 Genetic Toxicology: Rodent Dominant Lethal Test; Experiment: In vivo Subject: Mammalian-Animal; Result: Negative 4) Test: EPA OPPTS; Experiment: Cell: Germ Experiment: In vivo Subject: Mammalian-Animal Cell: Somatic; Result: Negative	Ames in vitro – Negative	
Carcinogenicity	1) Negative Result Oral-NOEL; Rat Male, Female; Dose: 15 mg/kg; Exposure: 2 years at 7 days/week 2) Negative Result- Dermal -NOEL; Rat Male, Female; Dose 1 mg/kg; Exposure: 2 years at 5 days/week 3) Negative Result Dermal - NOEL; Mouse Male; Dose .1 mg/kg; Exposure: 2 years at 3 days/week.		A two-year dermal study in mice produced skin tumors at greater than 1.87 mg Neopentyl Glycol Diglycidyl Ether (NPGDGE) per mouse per week (Holland, 1981)
Teratogenicity	1) Negative Result Oral; Rat Female; Dose: >540 mg/kg NOEL; Exposure: 10 days 2) Negative Result- Dermal; Rabbit Female; Dose >300 mg/kg NOEL; Exposure: 13 days, 6 hours/day 3) Negative Result Oral; Rabbit Female; Dose 180 mg/kg NOEL; Exposure: 13 days		
Reproductive Toxicity	Maternal Toxicity: Negative; Fertility: Negative; Toxin: Negative; Species: Rat-Male, Female; Dose: Oral: 540 mg/kg NOEL; Exposure: 238 days; 7 days/week		

11.3 Suspected Cancer Agent: The major components of this product are not found on the following lists: FEDERAL OSHA Z LIST, NTP, IARC. Phenyl Glycidyl Ether (CAS 122-60-1 < 6 ppm) and Epichlorohydrin (CAS 106-89-8 < 1 ppm) are listed in CAL/OSHA Prop 65 list as cancer causing agents.

11.4 Tissue Irritation/Sensitization: This product is moderately irritating to contaminated tissue. Prolonged or repeated skin contact can result in the development of rashes, and other allergy-like symptoms.

11.5 Potential Chronic Health Effects:

Chronic effects:	Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels
Target Organs:	No known significant effects or critical hazards.
Carcinogenicity:	No known significant effects or critical hazards.
Mutagenicity:	No known significant effects or critical hazards.
Teratogenicity:	No known significant effects or critical hazards.
Fertility effects:	No known significant effects or critical hazards.
Developmental effects:	No known significant effects or critical hazards.

11.6 Medical conditions aggravated by over-exposure: Pre-existing skin disorders may be aggravated by over-exposure to this product. Inhalation of this product's mists may aggravate respiratory conditions.

RECOMMENDATIONS TO PHYSICIANS: Treat symptoms and eliminate over-exposure to this product.

**A mutagen is a chemical which causes permanent changes to genetic material (DNA) such that the changes will propagate through generational lines. An embryotoxin is a chemical which causes damage to a developing embryo (i.e. within the first eight weeks of pregnancy in humans), but the damage does not propagate across generational lines. A teratogen is a chemical which causes damage to a developing fetus, but the damage does not propagate across generational lines. A reproductive toxin is any substance which interferes in any way with the reproductive process.*

12. ECOLOGICAL INFORMATION

12.1 Ecotoxicity: Reaction product: bisphenol A-(epichlorohydrin); epoxy resin

Test	Result	Dose	Exposure
202 Daphnia sp. Acute Immobilisation Test	Acute EC50 3.6 mg/L	Daphnia - Daphnia magna Straus 1820	24 hour
ECC (1988)	Acute IC50 > 100 mg/L	Bacteria – Aerobic bacteria	3 hours
203 Fish, Acute Toxicity Test	Acute LC50 1.5 mg/L	Fish – Rainbow trout (Oncorhynchus mykiss, Salmo gairdneri)	96 hours
	Acute EC50 9.4 mg/L Fresh water	Algae	72 hours Static
OECD 202 Daphnia sp. Acute Immobilisation Test	Acute EC50 1.7 mg/L Fresh water	Daphnia	48 hours Static
	Acute IC50 >100 mg/L Fresh water	Bacteria	3 hours Static
OECD 203 Fish, Acute Toxicity Test	Acute LC50 1.5 mg/L Fresh water	Fish	96 hours Static
OECD 211 Daphnia Magna Reproduction Test	Chronic NOEC 0.3 mg/L Fresh water	Daphnia	21 days Semi-static

12.2 Persistence and degradability: Not readily biodegradable. Aquatic half-life: Fresh Water 4.83 days to 7.1 days. Reaction product: bisphenol A-(epichlorohydrin); epoxy resin

Test	Result	Dose	Exposure
OECD Derived from OECD 301F (Biodegradation Test)	5% - Not readily -28 days	20 mg/L Oxygen consumption	-

12.3 Mobility in soil: No data available

12.3 Other adverse effects: No data available

13. DISPOSAL CONSIDERATIONS

13.1 Safe Handling and Methods of disposal of waste residues, including disposal of any contaminated package:

Large quantities should be recovered. Collect small quantities in waste metal drums and seal for removal to an approved landfill and/or disposal in accordance with local, state, and federal regulations.

13.2 Safe Handling: Follow steps at Section 8 for disposal, including using a ventilation system and wearing protective gloves and goggles.

14. TRANSPORT INFORMATION

14.1 UN number: UN3082

14.2 US DOT proper shipping name: Not regulated for Transport for quantities less than 250L/118G. Environmentally hazardous substance, liquid, n.o.s (Bisphenol A Epoxy Resin) Marine Pollutant

14.3 Transport hazard class(es): NA

14.4 Packing group: III

14.5 Marine pollutant: Yes, Bisphenol A

14.6 Emergency Schedules: (EMS) F-A, S-



15. REGULATORY INFORMATION

15.1 Occupational Safety and Health Act (OSHA): This Safety Data Sheet (SDS) has been prepared in compliance with the federal OSHA Hazard Communication Standard 29 CFR 1910.1200.

15.2 SARA Reporting Requirements: The components of this product are not subject to the reporting requirements of Sections 304 and 313 of Title III of the Superfund Amendments and Reauthorization Act. SARA Threshold Planning Quantity: Not applicable.

15.3 TSCA Inventory Status: The components of this product are listed on the TSCA Inventory.

15.4 CERCLA Reportable Quantity (RQ): Not listed

15.5 Other Federal Regulations: Section 311/312 Hazard Categories: Sections 311-312 require products be reviewed and applicable EPA Hazard Definitions be identified and made known.

EPA CLASSIFICATIONS: Acute Hazard: YES Chronic Hazard: YES Fire Hazard: NO
Pressure Hazard: NO Reactive Hazard: NO

15.5 State Regulatory Information: Components of this product are covered under specific State regulations.

15.5.1 New Jersey Right-to-know: The following is required composition information:

CAS No, 106-89-8

RTK No. (828)

CommonName: Epichlorohydrin

15.5.2 Pennsylvania Right-to-know: The following is required composition information:

CAS No, 106-89-8

Common Name: Epichlorohydrin

15.5.3 CALIFORNIA PROPOSITION 65: The below list of compounds is known to the State of California to cause cancer, birth defects or other reproductive harm:

CAS No. 122-60-1

106-89-8

Common Name: Phenyl Glycidyl Ether Epichlorohydrin

15.6 WHMIS Classification:

D2B - Poisonous and infectious material - Other effects - Toxic

WHMIS Health Effects Criteria Met by this Chemical:

D2B - Eye irritation - toxic - other

D2B - Skin Sensitization - toxic - other



16. OTHER INFORMATION

16.1 NFPA Hazard Classification: Health: 2 Flammability: 1 Reactivity: 0 Other: N/A

16.2 Disclaimer: The facts and recommendations contained herein are based on our own research and the research of others, and are believed to be accurate. No guarantee of their accuracy is made as we cannot cover every possible application for our products, nor anticipate variations encountered in manufacturing equipment and methods. OBEX urges users of this product to evaluate its suitability and compliance with all applicable laws and regulations.

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