

## 1. Product and Company Identification

<b>Product Code:</b>	468-RCB	
<b>Product Name:</b>	468 Low VOC Urethane Hardener Part B	
<b>Company Name:</b>	Key Resin / Flowcrete	<b>Phone Number:</b>
	4050 Clough Woods Dr.	+1 (513)943-4225
	Batavia, OH 45103	
<b>Emergency Contact:</b>	Chemtrec (USA)	(800)424-9300
	Chemtrec (International)	+1 (703)527-3887
<b>Intended Use:</b>	Industrial Maintenance Coatings	

## 2. Hazards Identification

**Flammable Liquids, Category 3**  
**Skin Corrosion/Irritation, Category 2**  
**Serious Eye Damage/Eye Irritation, Category 2A**



**Warning**      **Warning**

<b>GHS Hazard Phrases:</b>	H226 - Flammable liquid and vapor. H315 - Causes skin irritation. H319 - Causes serious eye irritation.
<b>GHS Precaution Phrases:</b>	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. P241 - Use explosion-proof electrical/ventilating/lighting/.../ equipment. P242 - Use only non-sparking tools. P243 - Take precautionary measures against static discharge. P264 - Wash hands thoroughly after handling. P280 - Wear protective gloves/protective clothing/eye protection/face protection. P281 - Use personal protective equipment as required.
<b>GHS Response Phrases:</b>	P302+352 - IF ON SKIN: Wash with plenty of soap and water. P303+361+353 - IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower. P305+351+338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P308+313 - IF exposed or concerned: Get medical attention/advice. P332+313 - If skin irritation occurs, get medical advice/attention. P337+313 - If eye irritation persists, get medical advice/attention. P362 - Take off contaminated clothing and wash before re-use.
<b>GHS Storage and Disposal Phrases:</b>	P403+235 - Store in cool/well-ventilated place. P405 - Store locked up. P501 - Dispose of contents/container to local, state, and federal authority requirements.
<b>OSHA Regulatory Status:</b>	This material is classified as hazardous under OSHA regulations.

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<b>Potential Health Effects (Acute and Chronic):</b>	Causes eye irritation. May cause skin irritation. May cause respiratory tract irritation.
<b>Inhalation:</b>	May cause respiratory irritation.
<b>Skin Contact:</b>	May cause skin irritation.
<b>Eye Contact:</b>	Causes eye irritation.
<b>Ingestion:</b>	May be harmful if swallowed.
<b>Medical Conditions Generally Aggravated By Exposure:</b>	Skin disorders, Respiratory disorders, Eye disorders, Skin Allergies.

### 3. Composition/Information on Ingredients

CAS #	Hazardous Components (Chemical Name)	Concentration	
NA	Plasticizer	50 - 60 %	
1259992-48-7	1,4-Dioxane-2,5-dione, 3,6-dimethyl-, (3S,6S)-, polymer with 2-oxepanone, ester with 2,2-dimethyl-1,3-propanediol (2:1)	20 - 30 %	
88917-22-0	Propanol, 1(or 2)-(2-methoxymethylethoxy)-, acetate	5.0 - 10 %	
77-58-7	Dibutyltin dilaurate	<2.0 %	
59719-67-4	Carbamic acid, 1,6-hexanediylbis-, bis[2-[2-(1-methylethyl)-3-oxazolidinyl]ethyl] ester	<2.0 %	
145899-78-1	3-Oxazolidineethanol, 2-(1-methylethyl)-, carbonate (2:1) (ester)	<2.0 %	
41556-26-7	Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate	<2.0 %	
64742-82-1	Naphtha (petroleum), hydrodesulfurized heavy	<1.0 %	
2807-30-9	Ethylene glycol monopropyl ether	<3.0 %	

### 4. First Aid Measures

<b>Emergency and First Aid Procedures:</b>	Use first aid treatment according to the nature of the injury.
<b>In Case of Inhalation:</b>	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. If experiencing respiratory symptoms: Get medical attention immediately.
<b>In Case of Skin Contact:</b>	In case of contact, immediately wash skin with soap and copious amounts of water. Remove contaminated clothing and shoes. Get medical attention if irritation develops or persists.
<b>In Case of Eye Contact:</b>	In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.
<b>In Case of Ingestion:</b>	If swallowed, wash out mouth with water provided person is conscious. Call a physician immediately. For further assistance, contact your local Poison Control Center.
<b>Signs and Symptoms Of Exposure:</b>	May cause rash on skin, and redness in eyes. May cause coughing by inhalation of a mist or spray.

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## 5. Fire Fighting Measures

<b>Flash Pt:</b>	> 105.00 F (40.6 C)
<b>Explosive Limits:</b>	LEL: NE UEL: NE
<b>Autoignition Pt:</b>	No data.
<b>Suitable Extinguishing Media:</b>	Use water spray, foam, dry chemical, or carbon dioxide.
<b>Unsuitable Extinguishing Media:</b>	Do not use a direct water stream, which may spread fire.
<b>Fire Fighting Instructions:</b>	Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. Use water spray to cool unopened containers.
<b>Flammable Properties and Hazards:</b>	Combustible material: may burn but does not ignite readily.

## 6. Accidental Release Measures

<b>Protective Precautions, Protective Equipment and Emergency Procedures:</b>	Wear respirator, chemical safety goggles, rubber boots, and heavy rubber gloves.
<b>Environmental Precautions:</b>	Prevent entry into waterways, sewers, basements or confined areas.
<b>Steps To Be Taken In Case Material Is Released Or Spilled:</b>	PROCEDURE TO BE FOLLOWED IN CASE OF LEAK OR SPILL. Use personal protective equipment. Evacuate area. Absorb with sand or vermiculite and place in closed containers for disposal. Ventilate the area.

## 7. Handling and Storage

<b>Precautions To Be Taken in Handling:</b>	Provide adequate ventilation. Do not breathe vapor. Do not get in eyes, on skin or on clothing.
<b>Precautions To Be Taken in Storing:</b>	Do not store in direct sunlight. Keep container tightly closed in a dry and well-ventilated place. Keep away from sources of ignition - No smoking.
<b>Other Precautions:</b>	Wash thoroughly after handling.

## 8. Exposure Controls/Personal Protection

CAS #	Partial Chemical Name	OSHA TWA	ACGIH TWA	Other Limits
NA	Plasticizer	No data.	No data.	No data.
1259992-48-7	1,4-Dioxane-2,5-dione, 3,6-dimethyl-, (3S,6S)-, polymer with 2-oxepanone, ester with 2,2-dimethyl-1,3-propanediol (2:1)	No data.	No data.	No data.
88917-22-0	Propanol, 1(or 2)-(2-methoxymethylethoxy)-, acetate	No data.	No data.	No data.
77-58-7	Dibutyltin dilaurate	No data.	No data.	No data.
59719-67-4	Carbamic acid, 1,6-hexanediybis-, bis[2-[2-(1-methylethyl)-3-oxazolidinyl]ethyl] ester	No data.	No data.	No data.
145899-78-1	3-Oxazolidineethanol, 2-(1-methylethyl)-, carbonate (2:1) (ester)	No data.	No data.	No data.
41556-26-7	Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate	No data.	No data.	No data.
64742-82-1	Naphtha (petroleum), hydrodesulfurized heavy	No data.	No data.	No data.

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2807-30-9	Ethylene glycol monopropyl ether	No data.	No data.	No data.
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<b>Respiratory Equipment (Specify Type):</b>	Normally when good engineering controls are used, no respiratory protection is needed. However, if cured product is abraded by sanding or grinding use a NIOSH approved air-purifying respirator. Where risk assessment shows air-purifying respirators are appropriate use a dust mask type N95 (US) or type P1 (EN 143) respirator. A NIOSH/MSHA approved air purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection.
<b>Eye Protection:</b>	Safety glasses, or goggles.
<b>Protective Gloves:</b>	Nitrile rubber and Neoprene are recommended.
<b>Other Protective Clothing:</b>	Where splashing is possible, full chemically resistant protective clothing, safety glasses or face shield and boots are required.
<b>Engineering Controls (Ventilation etc.):</b>	Good general ventilation should be sufficient to control airborne levels. Safety shower and eye bath.
<b>Work/Hygienic/Maintenance Practices:</b>	Wash contaminated clothing before reuse. Discard contaminated shoes. Wash thoroughly after handling.
<b>Environmental Exposure Controls:</b>	Avoid release to the environment. Avoid runoff into storm sewers and ditches which lead to waterways.

## 9. Physical and Chemical Properties

<b>Physical States:</b>	[ ] Gas [X] Liquid [ ] Solid
<b>Appearance and Odor:</b>	Clear to light yellow.
<b>Melting Point:</b>	No data.
<b>Boiling Point:</b>	No data.
<b>Autoignition Pt:</b>	No data.
<b>Flash Pt:</b>	> 105.00 F (40.6 C)
<b>Explosive Limits:</b>	LEL: NE UEL: NE
<b>Specific Gravity (Water = 1):</b>	~ .99
<b>Density:</b>	~ 8.26
<b>Vapor Pressure (vs. Air or mm Hg):</b>	NE
<b>Vapor Density (vs. Air = 1):</b>	NE
<b>Evaporation Rate:</b>	NE
<b>Solubility in Water:</b>	NE
<b>Saturated Vapor Concentration:</b>	NE
<b>Percent Volatile:</b>	~ 16.7 % by weight.
<b>VOC / Volume:</b>	< 50.0000 G/L

### 10. Stability and Reactivity

**Reactivity:** Stable under normal conditions.  
**Stability:** Unstable [ ] Stable [ X ]  
**Conditions To Avoid - Instability:** Avoid: Heat, flames and sparks.  
**Incompatibility - Materials To Avoid:** Avoid strong acids, bases, and oxidizing agents.  
**Hazardous Decomposition Or Byproducts:** Thermal decomposition may produce smoke, carbon monoxide, carbon dioxide.  
**Possibility of Hazardous Polymerization:** Will occur [ ] Will not occur [ X ]  
**Conditions To Avoid - Hazardous Reactions:** None known.

### 11. Toxicological Information

**Toxicological Information:** No data available.  
**Irritation or Corrosion:** May cause skin irritation. May be moderately irritating to eyes.  
**Symptoms related to Toxicological Characteristics:** Prolonged or repeated contact may cause skin irritation with local redness.  
**Chronic Toxicological Effects:** No data available.

### 12. Ecological Information

**General Ecological Information:** Avoid release to the environment. May be hazardous to the environment if released in large quantities.  
**Results of PBT and vPvB assessment:** No data available.  
**Persistence and Degradability:** Not determined for mixture.  
**Bioaccumulative Potential:** not reported, unknown.  
**Mobility in Soil:** not reported, unknown.

### 13. Disposal Considerations

**Waste Disposal Method:** Dispose of this product, product solutions and its container according to federal, state and local authority requirements. Avoid release to the environment.

### 14. Transport Information

**LAND TRANSPORT (US DOT):**

**DOT Proper Shipping Name:** Flammable liquids, n.o.s. (contains ethylene glycol monopropyl ether)

Note: The presence of a shipping description for a particular mode of transport (ocean, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. Shipment compliance is the responsibility of the person offering the product for transport. (Ethylene glycol monopropyl ether)

**DOT Hazard Class:** 3 FLAMMABLE LIQUID  
**UN/NA Number:** UN1993 **Packing Group:** III  
**Precautionary Label:** May cause skin, eye, and respiratory irritation.  
Always read Safety Material Data Sheet before use.

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**MARINE TRANSPORT (IMDG/IMO):**

**IMDG/IMO Shipping Name:** Flammable liquids, n.o.s. (contains ethylene glycol monopropyl ether)  
**UN Number:** 1993 **Packing Group:** III  
**Hazard Class:** 3 - FLAMMABLE LIQUID  
**IMDG EMS Number:** FE, SE **IMDG MFAG Number:**  
**IMDG EMS Page:** No

**AIR TRANSPORT (ICAO/IATA):**

**ICAO/IATA Shipping Name:** Flammable liquids, n.o.s. (contains ethylene glycol monopropyl ether)  
**UN Number:** 1993 **Packing Group:** III  
**Hazard Class:** 3 - FLAMMABLE LIQUID **IATA Classification:** 3

## 15. Regulatory Information

**EPA SARA (Superfund Amendments and Reauthorization Act of 1986) Lists**

CAS #	Hazardous Components (Chemical Name)	S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)
NA	Plasticizer	No	No	No
1259992-48-7	1,4-Dioxane-2,5-dione, 3,6-dimethyl-, (3S,6S)-, polymer with 2-oxepanone, ester with 2,2-dimethyl-1,3-propanediol (2:1)	No	No	No
88917-22-0	Propanol, 1(or 2)-(2-methoxymethylethoxy)-, acetate	No	No	No
77-58-7	Dibutyltin dilaurate	No	No	No
59719-67-4	Carbamic acid, 1,6-hexanediyldis-, bis[2-[2-(1-methylethyl)-3-oxazolidinyl]ethyl] ester	No	No	No
145899-78-1	3-Oxazolidineethanol, 2-(1-methylethyl)-, carbonate (2:1) (ester)	No	No	No
41556-26-7	Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate	No	No	No
64742-82-1	Naphtha (petroleum), hydrodesulfurized heavy	No	No	No
2807-30-9	Ethylene glycol monopropyl ether	No	No	Yes-Cat. N230

**This material meets the EPA**  Yes  No Acute (immediate) Health Hazard  
**'Hazard Categories' defined**  Yes  No Chronic (delayed) Health Hazard  
**for SARA Title III Sections**  Yes  No Fire Hazard  
**311/312 as indicated:**  Yes  No Sudden Release of Pressure Hazard  
 Yes  No Reactive Hazard

## 16. Other Information

**Revision Date:** 06/02/2021

**Additional Information About This Product:** CA=CIRCA NA=NOT AVAILABLE NE=NOT ESTABLISHED NR=NOT REGULATED NP= NOT APPLICABLE PR=PROPRIETARY TS=TRADE SECRET ?=UNKNOWN.

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