

## 589 Key Lastic Regular Cure Hardener - Part B

Printed: 05/28/2021

Revision: 05/28/2021

Supersedes Revision: 06/29/2015

## 1. Product and Company Identification

**Product Code:** 589-RCB  
**Product Name:** 589 Key Lastic Regular Cure Hardener - Part B  
**Trade Name:** 589 Key Lastic Regular Cure Hardener - Part B  
**Company Name:** Key Resin / Flowcrete  
 4050 Clough Woods Dr.  
 Batavia, OH 45103  
**Phone Number:** +1 (513)943-4225  
**Emergency Contact:** Chemtrec (USA) (800)424-9300  
 Chemtrec (International) +1 (703)527-3887  
**Intended Use:** Industrial floor coatings.

## 2. Hazards Identification

Skin Sensitization, Category 1A

Skin Corrosion/Irritation, Category 1A

Serious Eye Damage/Eye Irritation, Category 1

Acute Toxicity: Oral, Category 4

Toxic To Reproduction, Category 2



Warning



Danger



Warning

**GHS Hazard Phrases:**

H317 - May cause an allergic skin reaction.

H314 - Causes severe skin burns and eye damage.

H318 - Causes serious eye damage.

H302 - Harmful if swallowed.

H361 - Suspected of damaging fertility or the unborn child .

**GHS Precaution Phrases:**

P281 - Use personal protective equipment as required.

P262 - Do not get in eyes, on skin, or on clothing.

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

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

P285 - In case of inadequate ventilation wear respiratory protection.

P361+364 - Take off immediately all contaminated clothing and wash it before reuse.

P273 - Avoid release to the environment.

**GHS Response Phrases:**

P302+352 - IF ON SKIN: Wash with plenty of soap and water. P361 - Remove/Take off immediately all contaminated clothing. P333+313 - If skin irritation or rash occurs, seek medical advice/attention.

P305+351+338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P313 - Get medical advice/attention.

P301+330+331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. P311 - Call a POISON CENTER or doctor/physician.

P304+340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P314 - Get medical attention/advice if you feel unwell.

**GHS Storage and Disposal Phrases:**

P501 - Dispose of contents/container to local, state, and federal authority requirements.

P405 - Store locked up.

**OSHA Regulatory Status:**

This material is classified as hazardous under OSHA regulations.

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<b>Potential Health Effects (Acute and Chronic):</b>	May cause sensitization. May cause skin irritation or burns. May cause respiratory tract irritation. May cause allergic skin reaction. Can cause severe eye irritation.
<b>Inhalation:</b>	Corrosive to respiratory tract. May cause respiratory sensitization.
<b>Skin Contact:</b>	Contact with substance may cause severe burns to skin. Symptoms may include redness, edema, drying, defatting and cracking of the skin.
<b>Eye Contact:</b>	Corrosive/irritation to eyes. Causes eye burns.
<b>Ingestion:</b>	Harmful if swallowed. This product may produce corrosive damage to the gastrointestinal tract if it is swallowed. Ingestion may produce burns to the lips, oral cavity, upper airway, esophagus and possibly the digestive tract.
<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	
15520-10-2	1,5-Pentanediamine, 2-methyl-	30 - 45 %	
98-54-4	4-tert-Butylphenol	15 - 25 %	
1477-55-0	1,3-Benzenedimethanamine	10 - 20 %	
102-71-6	Triethanolamine	5.0 - 15 %	
9046-10-0	*Poly(oxy(methyl-1,2-ethanediyl))	1.0 - 10 %	
110-85-0	Piperazine	<4.0 %	
140-31-8	1-(2-Aminoethyl)piperazine	<2.0 %	

### 4. First Aid Measures

#### Emergency and First Aid

##### Procedures:

<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. Get medical attention immediately.
<b>In Case of Ingestion:</b>	If swallowed, wash out mouth with water provided person is conscious. Do not induce vomiting. Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions. Get medical attention immediately.

##### Signs and Symptoms Of Exposure:

Eyes: Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.

Skin: Can cause severe skin burns. Symptoms may include redness, edema, drying, defatting and cracking of the skin.

Inhalation: Vapors are irritating to the respiratory system, may cause throat pain and cough.

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## 5. Fire Fighting Measures

<b>Flash Pt:</b>	> 180.00 F (82.2 C)	Method Used: Pensky-Marten Closed Cup
<b>Explosive Limits:</b>	LEL: NE	UEL: NE
<b>Autoignition Pt:</b>	No data.	
<b>Suitable Extinguishing Media:</b>	CO2, dry chemical, dry sand, alcohol-resistant foam.	
<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.	
<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. Where splashing is possible, full chemically resistant protective clothing, and boots are required.
<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. 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. Wear all personal protection required in section 8.
<b>Precautions To Be Taken in Storing:</b>	Keep container tightly closed in a dry and well-ventilated place. Store away from incompatible material.
<b>Other Precautions:</b>	Wash thoroughly after handling.

## 8. Exposure Controls/Personal Protection

CAS #	Partial Chemical Name	OSHA TWA	ACGIH TWA	Other Limits
15520-10-2	1,5-Pentanediamine, 2-methyl-	No data.	No data.	No data.
98-54-4	4-tert-Butylphenol	No data.	No data.	No data.
1477-55-0	1,3-Benzenedimethanamine	No data.	CEIL: mg/m3	No data.
102-71-6	Triethanolamine	No data.	TLV: 5 mg/m3	No data.
9046-10-0	*Poly(oxy(methyl-1,2-ethanediyl)	No data.	No data.	No data.
110-85-0	Piperazine	No data.	No data.	No data.
140-31-8	1-(2-Aminoethyl)piperazine	No data.	No data.	No data.

<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.

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<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 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>	Odor: amine-like. Appearance: Liquid. amber.
<b>Melting Point:</b>	NE
<b>Boiling Point:</b>	NE
<b>Decomposition Temperature:</b>	NE
<b>Autoignition Pt:</b>	No data.
<b>Flash Pt:</b>	> 180.00 F (82.2 C) Method Used: Pensky-Marten Closed Cup
<b>Explosive Limits:</b>	LEL: NE UEL: NE
<b>Specific Gravity (Water = 1):</b>	~ .976
<b>Density:</b>	~ 8.14 LB/GL
<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>	No data.
<b>Solubility Notes:</b>	Practically insoluble.
<b>Saturated Vapor Concentration:</b>	NE
<b>Percent Volatile:</b>	N.A.
<b>VOC / Volume:</b>	NP

## 10. Stability and Reactivity

<b>Reactivity:</b>	Avoid: acids, alkalis, oxidizing agents.
<b>Stability:</b>	Unstable [ ] Stable [ X ]
<b>Conditions To Avoid - Instability:</b>	Extreme temperatures.
<b>Incompatibility - Materials To Avoid:</b>	Avoid strong acids, bases, and oxidizing agents.
<b>Hazardous Decomposition Or Byproducts:</b>	Thermal decomposition may produce smoke, carbon monoxide, carbon dioxide, and phenolics.
<b>Possibility of Hazardous Polymerization:</b>	Will occur [ ] Will not occur [ X ]
<b>Conditions To Avoid - Hazardous Reactions:</b>	Will not undergo hazardous polymerization in normal storage conditions.

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## 11. Toxicological Information

<b>Toxicological Information:</b>	May cause sensitization by skin contact.
<b>Irritation or Corrosion:</b>	Corrosive! Damages skin and eyes.
<b>Symptoms related to Toxicological Characteristics:</b>	Skin: Contact with substance may cause severe burns to skin. Symptoms may include redness, edema, drying, defatting and cracking of the skin. Eyes: Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva. Permanent eye damage including blindness could result. Inhalation: Inhalation of vapors/fumes causes respiratory irritation with throat discomfort, coughing or difficulty breathing.
<b>Chronic Toxicological Effects:</b>	Skin sensitization.

## 12. Ecological Information

<b>General Ecological Information:</b>	Avoid release to the environment. Do not empty into drains. May be hazardous to the environment if released in large quantities.
<b>Results of PBT and vPvB assessment:</b>	No data available.
<b>Persistence and Degradability:</b>	Not readily biodegradable.
<b>Bioaccumulative Potential:</b>	No data available.
<b>Mobility in Soil:</b>	not reported, unknown.

## 13. Disposal Considerations

<b>Waste Disposal Method:</b>	Incinerate or dispose of unused material, residues and containers in a licensed facility in accordance with all applicable local, state and federal regulations. Do not discharge substance/product into sewage system.
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## 14. Transport Information

## LAND TRANSPORT (US DOT):

<b>DOT Proper Shipping Name:</b>	CAUSTIC ALKALI LIQUID, N.O.S. (Modified Polyamine)		
<b>DOT Hazard Class:</b>	8	CORROSIVE	
<b>UN/NA Number:</b>	UN1719	<b>Packing Group:</b>	III
<b>Precautionary Label:</b>	Corrosive! Damages skin and eyes. Avoid skin and eye contact. May cause eye and skin irritation. May cause skin sensitization. Wear protective equipment and clothing. Always read MSDS/SDS before use.		



## MARINE TRANSPORT (IMDG/IMO):

<b>IMDG/IMO Shipping Name:</b>	CAUSTIC ALKALI LIQUID, N.O.S. (Modified Polyamine)		
<b>UN Number:</b>	1719	<b>Packing Group:</b>	III
<b>Hazard Class:</b>	8 - CORROSIVE		
<b>IMDG EMS Number:</b>	FA,SB	<b>IMDG MFAG Number:</b>	
<b>IMDG EMS Page:</b>			Yes

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## AIR TRANSPORT (ICAO/IATA):

ICAO/IATA Shipping Name: CAUSTIC ALKALI LIQUID, N.O.S. (Modified Polyamine)

## 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)
15520-10-2	1,5-Pentanediamine, 2-methyl-	No	No	No
98-54-4	4-tert-Butylphenol	No	No	No
1477-55-0	1,3-Benzenedimethanamine	No	No	No
102-71-6	Triethanolamine	No	No	No
9046-10-0	*Poly(oxy(methyl-1,2-ethanediyl)	No	No	No
110-85-0	Piperazine	No	No	No
140-31-8	1-(2-Aminoethyl)piperazine	No	No	No

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

Regulatory Information: SARA Section 311/312: Acute, Chronic Health Hazard.

## 16. Other Information

Revision Date: 05/28/2021

Hazard Rating System:

HEALTH	3
FLAMMABILITY	1
PHYSICAL	0
PPE	X

HMIS:

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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