



17 Shepard Street • Lawrence, MA 01843 USA
+1.978.683.9411

www.keypolymer.com

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Revision Number 10

1. Identification of the Substance/Preparation and of the Company/Undertaking

Product identifier

Product Name KEY EC1055B

Other means of identification

Product Code(s) EC1055B

UN/ID no. UN3066

Product Technology Epoxy B side

None

Curing chemical. FOR INDUSTRIAL USE ONLY.

Restrictions on use: Do not use this product for any use other than intended

Manufacturer Address

Key Polymer Holdings, LLC

17 Shepard Street

Lawrence, MA 01843, USA

Company Phone Number 978-683-9411 (8AM - 5PM EST) (M-F)

Emergency Telephone Chemtec 1-800-424-9300 (24 Hours) CCN 12410

Chemtec International Phone +1 703-527-3887

2. Hazards Identification

Classification

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS). This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Acute toxicity - Oral	Category 4
Acute toxicity - Inhalation (Gases)	Category 4
Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Skin corrosion/irritation	Category 1 Sub-category B
Serious eye damage/eye irritation	Category 1
Skin sensitization	Category 1
Reproductive toxicity	Category 2

Emergency Overview

DANGER

Hazard statements

Harmful if swallowed

Harmful if inhaled
Causes severe skin burns and eye damage
May cause an allergic skin reaction
Suspected of damaging fertility or the unborn child



Appearance Clear Yellow

Physical state Liquid

Odor Amine

Precautionary Statements - Prevention

Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Use personal protective equipment as required
Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Use only outdoors or in a well-ventilated area
Do not breathe dust, fumes, or vapors
Contaminated work clothing should not be allowed out of the workplace
Wear protective gloves

Precautionary Statements - Response

Immediately call a POISON CENTER or doctor/physician
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
Immediately call a POISON CENTER or doctor/physician
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
Wash contaminated clothing before reuse
If skin irritation or rash occurs: Get medical advice/attention
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
Call a POISON CENTER or doctor/physician if you feel unwell
Immediately call a POISON CENTER or doctor/physician
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
Rinse mouth
Do NOT induce vomiting

Precautionary Statements - Storage

Store locked up
Store in a well-ventilated place. Keep container tightly closed

Precautionary Statements - Disposal

Dispose of contents/container in accordance with local/regional/international regulations

Hazards Not Otherwise Classified (HNOC)

Not applicable

Other Information

Very toxic to aquatic life with long lasting effects, Very toxic to aquatic life

3. Composition/Information on Ingredients

Substance

Not applicable

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Chemical Family Epoxy B Side

Chemical name	CAS No.	Weight-%	Trade secret
Proprietary amine	Proprietary	20.0 - 30.0	*
Phenol, 4-nonyl-, branched	84852-15-3	15.0 - 25.0	*
benzyl alcohol	100-51-6	10.0 - 15.0	*
m-Xylylenediamine	1477-55-0	10.0 - 15.0	*
Nonylphenol	25154-52-3	3.0 - 8.0	*

* The exact percentage (concentration) of composition may have been withheld as a trade secret.

4. First Aid Measures

Description of first aid measures

General advice	Use first aid treatment according to the nature of the injury. For further assistance, contact your local Poison Control Center. In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Call a physician if irritation persists.
Skin contact	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. If symptoms persist, call a physician. Wash contaminated clothing before reuse.
Inhalation	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If breathing is irregular or stopped, administer artificial respiration. Administer oxygen if breathing is difficult. If symptoms persist, call a physician.
Ingestion	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Call a physician or Poison Control Center immediately.
Self-protection of the first aider	First Aider: Pay attention to self-protection. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

Most important symptoms and effects, both acute and delayed

Symptoms	May cause allergic skin reaction. Burning sensation. Itching. Rashes. May cause allergy or asthma symptoms or breathing difficulties if inhaled.
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Indication of any immediate medical attention and special treatment needed

Note to physicians	Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Do not give chemical antidotes. Asphyxia from glottal edema may occur. Marked decrease in blood pressure may occur with moist rales, frothy sputum, and high pulse pressure. May cause sensitization in susceptible persons. Treat symptomatically.
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5. Fire-Fighting Measures

Suitable Extinguishing Media

Foam, Dry Chemical, Carbon Dioxide (CO₂);

Unsuitable extinguishing media Water reactive.

Specific hazards arising from the chemical

Incomplete combustion and thermolysis may produce gases of varying toxicity such as carbon monoxide, carbon dioxide, various hydrocarbons, aldehydes and soot. These may be highly dangerous if inhaled in confined spaces or at high concentration. Substance will react with water (some violently) releasing flammable, toxic or corrosive gases and runoff. Cool closed containers exposed to fire with water spray. Do not allow run-off from fire fighting to enter drains or water ways. Dike for water control.

Hazardous combustion products

Carbon oxides; Nitrogen oxides (NOx). Ammonia.

Explosion data**Sensitivity to Mechanical Impact** None.**Sensitivity to Static Discharge** None.**Protective equipment and precautions for firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures**Personal precautions**

Attention!. Corrosive material. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation, especially in confined areas. Use personal protective equipment as required. Keep people away from and upwind of spill/leak. Avoid breathing vapors or mists.

Other Information

Use personal protective equipment as required.

For Emergency Responders

Use personal protective equipment as required.

Environmental precautions**Environmental precautions**

Do not allow into any sewer, on the ground or into any body of water. See Section 12 for additional Ecological Information.

Methods and material for containment and cleaning up**Methods for containment**

Prevent further leakage or spillage if safe to do so.

Methods for cleaning up

Pick up and transfer to properly labeled containers.

7. Handling and Storage

Precautions for safe handling**Advice on safe handling**

Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. In case of insufficient ventilation, wear suitable respiratory equipment. Transfer and handle product only in closed systems. Remove contaminated clothing and shoes. Wash contaminated clothing before reuse. Do not breathe vapor or mist.

Conditions for safe storage, including any incompatibilities**Storage Conditions**

Keep out of the reach of children. Keep containers tightly closed in a cool, well-ventilated place. Do not reuse container. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity).

Incompatible materials

Acids; Bases; Strong oxidizing agents; Water.

8. Exposure Controls/Personal Protection

Control parameters**Exposure Limits**

The following ingredients are the only ingredients of the product above the cut-off level (or level that contributes to the hazard classification of the mixture) which have an exposure limit applicable in the region for which this safety data sheet is intended or other recommended limit. At this time, the other relevant constituents have no known exposure limits from the sources listed here

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
m-Xylylenediamine 1477-55-0	S* Ceiling: 0.018 ppm	(vacated) S*	Ceiling: 0.1 mg/m ³

Appropriate engineering controls**Engineering controls**

Showers
Eyewash stations
Ventilation systems

Individual protection measures, such as personal protective equipment**Eye/face protection**

Tight sealing safety goggles. Face protection shield.

Skin and body protection

Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Respiratory protection

If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

General hygiene considerations

Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Wash hands thoroughly after handling. Do not breathe vapor or mist.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Physical state	Liquid	Odor	Amine
Appearance	Clear	Odor threshold	N/A
Color	Yellow		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	N/A	
Melting point / freezing point	N/A	
Boiling point / boiling range	> 198 °C	
Flash point	> 120 °C	CC (closed cup)
Evaporation rate	Nil	
Flammability (solid, gas)	N/A	
Flammability Limit in Air		
Upper flammability limit:	N/A	
Lower flammability limit:	N/A	
Vapor pressure	N/A	
Vapor density	N/A	
Relative density	1.009	
Water solubility	Negligible	
Solubility in other solvents	N/A	
Partition coefficient	N/A	
Autoignition temperature	N/A	
Decomposition temperature	N/A	

Kinematic viscosity N/A
Dynamic viscosity N/A
Explosive properties Not an explosive
Oxidizing properties N/A

Other Information

Softening point N/A
Molecular weight N/A
VOC Content (%) N/A
Liquid Density N/A
Bulk density 8.4 pounds/gallon

10. Stability and Reactivity

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

None under normal processing.

Conditions to avoid

Keep out of reach of children. Avoid moisture. Incompatible materials.

Incompatible materials

Acids; Bases; Strong oxidizing agents; Water.

Hazardous decomposition products

Carbon oxides; Nitrogen oxides (NOx). Ammonia.

11. Toxicological Information

Information on likely routes of exposure

Product Information Independent laboratory test results confirm that exposure to chemical hazards are well below the OSHA permissible exposure limits when this product is used as recommended.

Inhalation Harmful by inhalation. Inhalation of corrosive fumes/gases may cause coughing, choking, headache, dizziness, and weakness for several hours. Pulmonary edema may occur with tightness in the chest, shortness of breath, bluish skin, decreased blood pressure, and increased heart rate.

Eye contact Causes serious eye damage. Corrosive to the eyes and may cause severe damage including blindness.

Skin contact Corrosive. Causes burns. Harmful in contact with skin. May cause sensitization by skin contact. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons.

Ingestion Not an expected route of exposure. Do NOT taste or swallow. Harmful if swallowed. May cause severe burning pain in the mouth and stomach with vomiting and diarrhea of dark blood. Blood pressure may decrease. Brownish or yellowish stains may be seen around the mouth. Swelling of the throat may cause shortness of breath and choking.

Component Information Caution - This preparation contains a substance not yet fully tested

Chemical name	ATEmix (oral)	ATEmix (dermal)	Inhalation LC50
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Proprietary amine	= 1030 mg/kg (Rat)	> 2000 mg/kg (Rat)	> 5.01 mg/L (Rat) 4 h 1.07 - 5.01 mg/L (Rat) 4 h
Phenol, 4-nonyl-, branched 84852-15-3	= 1300 mg/kg (Rat)	= 2000 mg/kg (Rabbit)	-
benzyl alcohol 100-51-6	= 1230 mg/kg (Rat)	= 2 g/kg (Rabbit)	> 4178 mg/m ³ (Rat) 4 h
m-Xylylenediamine 1477-55-0	= 1040 mg/kg (Rat)	= 2 g/kg (Rabbit)	= 2.4 mg/kg (Rat) 4 h
Nonylphenol 25154-52-3	= 580 mg/kg (Rat)	= 2031 mg/kg (Rabbit)	-

Information on toxicological effects

N/A.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation	Causes burns.
Serious eye damage/eye irritation	Risk of serious damage to eyes. Causes burns.
Irritation	Irritating to eyes, respiratory system and skin.
Corrosivity	Corrosive to eyes and skin.
Sensitization	May cause sensitization by skin contact.
Germ cell mutagenicity	N/A.
Carcinogenicity	This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.
Reproductive toxicity	Category 2: Substances which should be regarded as if they impair fertility in humans. May cause harm to the unborn child.
STOT - single exposure	N/A.
STOT - repeated exposure	N/A.
Aspiration hazard	N/A.

Numerical measures of toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral)	767.50 mg/kg
ATEmix (dermal)	2,317.00 mg/kg
ATEmix (inhalation-gas)	4,500.00 mg/l
ATEmix (inhalation-dust/mist)	2.27 mg/l

12. Ecological Information

4-Nonylphenol, branched.

Ecotoxicity

Very toxic to aquatic life with long lasting effects

Chemical name	Algae/aquatic plants	Fish	Crustacea
Proprietary amine	37: 72 h <i>Desmodesmus subspicatus</i> mg/L EC50		14.6 - 21.5: 48 h <i>Daphnia magna</i> mg/L EC50 semi-static
Phenol, 4-nonyl-, branched 84852-15-3	0.16 - 0.72: 72 h <i>Pseudokirchneriella subcapitata</i> mg/L EC50 static 0.36 - 0.48: 96 h <i>Pseudokirchneriella subcapitata</i> mg/L EC50 static 1.3: 72 h <i>Desmodesmus subspicatus</i> mg/L EC50	0.135: 96 h <i>Pimephales promelas</i> mg/L LC50 flow-through 0.1351: 96 h <i>Lepomis macrochirus</i> mg/L LC50 flow-through	0.14: 48 h <i>Daphnia magna</i> mg/L EC50
benzyl alcohol 100-51-6		10: 96 h <i>Lepomis macrochirus</i> mg/L LC50 static 460: 96 h <i>Pimephales promelas</i> mg/L LC50 static	23: 48 h water flea mg/L EC50
m-Xylylenediamine 1477-55-0		87.6: 96 h <i>Oryzias latipes</i> mg/L LC50 semi-static	

Nonylphenol 25154-52-3	0.41: 96 h Pseudokirchneriella subcapitata mg/L EC50 1.3: 72 h Desmodesmus subspicatus mg/L EC50	0.135: 96 h Pimephales promelas mg/L LC50 flow-through	0.0874 - 0.124: 48 h Daphnia magna mg/L EC50 semi-static 0.17 - 0.21: 48 h Daphnia magna mg/L EC50 Static 0.14: 48 h Daphnia magna mg/L EC50
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Persistence and degradability

N/A

Chemical name	Partition coefficient
Proprietary amine	0.79
benzyl alcohol 100-51-6	1.1
Nonylphenol 25154-52-3	3.28

Other adverse effects

N/A

Ozone depletion potential (ODP) N/A

13. Disposal Considerations

Waste treatment methods

Disposal of Wastes Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging Do not reuse container.

14. Transport Information

DOT

UN/ID no. UN3066
 Proper shipping name Paint
 Hazard Class 8
 Packing Group III
 Special Provisions B52, IB3, T4, TP1, TP29, 367
 Marine pollutant 4-Nonylphenol, branched.
 Description UN3066, PAINT, (4-Nonylphenol, branched),8, III, Marine pollutant
 Emergency Response Guide Number 153

ICAO (air)

UN/ID no. UN3066
 Proper shipping name Paint
 Hazard Class 8
 Packing Group III
 Special Provisions A3, A72, A192
 Description UN3066 Paint, 8,III

IATA

UN/ID no. UN3066
 Proper shipping name Paint
 Hazard Class 8
 Packing Group III
 ERG Code 8L

Special Provisions A3, A72, A803, A192
Description UN3066 Paint 8,III

IMDG

UN/ID no. UN3066
Proper shipping name Paint
Hazard Class 8
Packing Group III
EmS-No. F-A, S-B
Special Provisions 163, 223, 367
Marine pollutant 4-Nonylphenol, branched
Description UN3066 Paint 8, III, Marine pollutant

15. Regulatory Information

International Inventories

Legend:

TSCA - *United States Toxic Substances Control Act Section 8(b) Inventory*
 DSL/NDSL - *Canadian Domestic Substances List/Non-Domestic Substances List*

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical name	CAS No.	Weight-%	SARA 313 - Threshold Values %
Phenol, 4-nonyl-, branched - 84852-15-3	84852-15-3	15.0 - 25.0	1.0
Nonylphenol - 25154-52-3	25154-52-3	3.0 - 8.0	1.0

SARA 311/312 Hazard Categories

Acute Health Hazard No
Chronic Health Hazard No
Fire Hazard No
Sudden Release of Pressure Hazard No
Reactive Hazard No

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

US State Regulations

U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Proprietary amine	X		

benzyl alcohol 100-51-6		X	X
m-Xylylenediamine 1477-55-0	X	X	X
Nonylphenol 25154-52-3		X	X

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. Other Information

Prepared By Key Polymer Corp Compliance
 Issuing Date 02-Jun-2015
 Revision Date 18-Sep-2023

Revision Note

N/A

Disclaimer

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet