



SAFETY DATA SHEET

LCA-9

Version 1.2

Revision Date 05/31/2022

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : LCA-9
Product code : 100000020540

Manufacturer or supplier's details

Company : Bacon Adhesives
Address : 16731 Hale Avenue
Irvine, CA 92606
Telephone : (310) 830-9904

Medical Emergency Phone Number (24 Hours): 1-888-853-1758

Transport Emergency Phone Number (CHEMTREC): 1-800-424-9300

Recommended use of the chemical and restrictions on use

Recommended use : Epoxy resin
Restrictions on use : For industrial use only.

SECTION 2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance	liquid
Color	off-white
Odor	characteristic

GHS Classification

Skin irritation : Category 2
Eye irritation : Category 2A
Skin sensitization : Category 1
Carcinogenicity : Category 1B

GHS label elements

Hazard pictograms :



Signal Word : Danger

Hazard Statements:

H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H350 May cause cancer.

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Precautionary Statements:

Prevention: P201 Obtain special instructions before use. P202 Do not handle until all safety precautions have been read and understood. P261 Avoid breathing mist or vapors. P264 Wash skin thoroughly after handling. P272 Contaminated work clothing must not be allowed out of the workplace. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response: P302 + P352 IF ON SKIN: Wash with plenty of soap and water. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P308 + P313 IF exposed or concerned: Get medical advice/ attention. P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention. P337 + P313 If eye irritation persists: Get medical advice/ attention. P362 Take off contaminated clothing and wash before reuse.

Storage: P405 Store locked up.

Disposal: P501 Dispose of contents/ container to an approved waste disposal plant.

Potential Health Effects

Carcinogenicity:

IARC

Group 2B: Possibly carcinogenic to humans

2,3-epoxypropyl phenyl ether 122-60-1

OSHA

No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP

No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Additional Labeling:

The following percentage of the mixture consists of ingredient(s) with unknown acute toxicity:
 66.66 %

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous ingredients

Chemical name	CAS-No.	Concentration [%]
2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane	1675-54-3	30 - 50
2,3-epoxypropyl phenyl ether	122-60-1	0.1 - 1

Actual concentration is withheld as a trade secret

SECTION 4. FIRST AID MEASURES

General advice : Show this material safety data sheet to the doctor in attendance.

If inhaled : Move to fresh air.
 If symptoms persist, call a physician.

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|-------------------------|--|
| In case of skin contact | : Wash off with soap and water.
Get medical attention immediately if irritation develops and persists.
Remove contaminated clothing and shoes.
Wash contaminated clothing before reuse. |
| In case of eye contact | : Flush eyes with water at least 15 minutes. Get medical attention if eye irritation develops or persists. |
| If swallowed | : Do NOT induce vomiting.
If victim is fully conscious, give a cupful of water.
Never give anything by mouth to an unconscious person.
Obtain medical attention. |
-

SECTION 5. FIRE-FIGHTING MEASURES

- | | |
|--|---|
| Suitable extinguishing media | : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. |
| Specific extinguishing methods | : |
| Further information | : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. |
| Special protective equipment for fire-fighters | : In the event of fire, wear self-contained breathing apparatus.
Use personal protective equipment. |
-

SECTION 6. ACCIDENTAL RELEASE MEASURES

- | | |
|---|--|
| Personal precautions, protective equipment and emergency procedures | : Refer to protective measures listed in sections 7 and 8. |
| Environmental precautions | : Prevent product from entering drains.
Do not flush into surface water or sanitary sewer system. |
| Methods and materials for containment and cleaning up | : Soak up with inert absorbent material.
Shovel into suitable container for disposal. |
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SECTION 7. HANDLING AND STORAGE

- | | |
|-------------------------|------------------------------------|
| Technical measures | : not applicable |
| Advice on safe handling | : No special precautions required. |
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Conditions for safe storage : Keep in a dry, cool place.

Materials to avoid : No special restrictions on storage with other products.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Ingredients with workplace control parameters**

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
2,3-epoxypropyl phenyl ether	122-60-1	TWA	0.1 ppm	ACGIH
		TWA	10 ppm 60 mg/m ³	OSHA Z-1
		TWA	1 ppm 6 mg/m ³	OSHA P0
		PEL	0.1 ppm 0.6 mg/m ³	CAL PEL

Personal protective equipment

Respiratory protection : No personal respiratory protective equipment normally required.

Hand protection

Material : Nitrile rubber

Eye protection

: Safety glasses

Skin and body protection

: Remove and wash contaminated clothing before re-use.

Protective measures

: Avoid contact with skin.

Hygiene measures

: Avoid contact with skin, eyes and clothing.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

: liquid

Color

: off-white

Odor

: characteristic

Odor Threshold

: no data available

pH

: not applicable

Melting point/freezing point

: is not determined

Boiling point/boiling range

: is not determined

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Flash point	: not applicable
Evaporation rate	: is not determined
Flammability (solid, gas)	: Not classified as a flammability hazard
Upper explosion limit	: Upper flammability limit is not determined
Lower explosion limit	: Lower flammability limit is not determined
Vapor pressure	: is not determined
Solubility(ies)	
Water solubility	: is not determined
Partition coefficient: n- octanol/water	: no data available
Autoignition temperature	: is not determined
Viscosity	
Viscosity, kinematic	: is not determined

SECTION 10. STABILITY AND REACTIVITY

Chemical stability	: The product is chemically stable.
Conditions to avoid	: not applicable
Hazardous decomposition products	: Stable under normal conditions.

SECTION 11. TOXICOLOGICAL INFORMATION**Acute toxicity**

No data available

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

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No data available

Reproductive toxicity

No data available

STOT-single exposure

No data available

STOT-repeated exposure

No data available

Aspiration toxicity

No data available

SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity****Components:****2,3-epoxypropyl phenyl ether :**

Toxicity to fish : LC50 (Carassius auratus (goldfish)): 43 mg/l
Exposure time: 96 h
Test Method: static test

Persistence and degradability

No data available

Bioaccumulative potential**Mobility in soil**

No data available

Other adverse effects

No data available

SECTION 13. DISPOSAL CONSIDERATIONS**Disposal methods**

Waste from residues : To the best of our knowledge, this product does not meet the definition of hazardous waste under the U.S. EPA Hazardous Waste Regulations 40 CFR 261. Disposal via incineration at an approved facility is recommended, as industry best practice. Consult state, local or provincial authorities for more restrictive requirements.

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SECTION 14. TRANSPORT INFORMATION

International Regulations

IATA-DGR

UN/ID No.	:	UN 3082
Proper shipping name	:	Environmentally hazardous substance, liquid, n.o.s. (EPOXY RESIN)
Class	:	9
Packing group	:	III
Labels	:	Miscellaneous
Packing instruction (cargo aircraft)	:	964
Packing instruction (passenger aircraft)	:	964

IMDG-Code

UN number	:	UN 3082
Proper shipping name	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (EPOXY RESIN)
Class	:	9
Packing group	:	III
Labels	:	9
EmS Code	:	F-A, S-F
Marine pollutant	:	no

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

Domestic regulation

49 CFR

Not regulated as a dangerous good

Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

SECTION 15. REGULATORY INFORMATION

SARA 311/312 Hazards	:	Respiratory or skin sensitization Carcinogenicity Skin corrosion or irritation Serious eye damage or eye irritation
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SARA 302 : This material does not contain any components with a section 302 EHS TPQ.

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Air Act

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

US State Regulations

California Prop 65 Please contact Supplier for more information.

The ingredients of this product are reported in the following inventories:

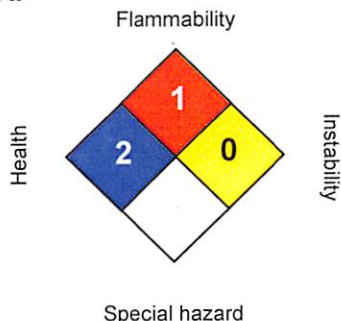
TSCA All substances listed as active on the TSCA inventory
Inventories Legend TSCA (USA), DSL (Canada), REACH(Europe), AIIIC (Australia), NZIoC (New Zealand), ENCS (Japan), KECI (Korea), PICCS (Philippines), IECSC (China), TWINV (Taiwan)

SECTION 16. OTHER INFORMATION

Prepared by: Global Regulatory Office - phone: 1-651-236-5842 - email: msds.request@hbfuller.com

Further information

NFPA:



HMIS III:

HEALTH	2*
FLAMMABILITY	1
PHYSICAL HAZARD	0

0 = not significant, 1 =Slight,
2 = Moderate, 3 = High
4 = Extreme, * = Chronic



SAFETY DATA SHEET

Activator BA-5 (97005)

Version 1.2

Revision Date 05/20/2022

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Activator BA-5 (97005)
Product code : 100000018969

Manufacturer or supplier's details

Company : Bacon Adhesives

Address : 16731 Hale Avenue
Irvine, CA 92606

Telephone : (310) 830-9904

Medical Emergency Phone Number (24 Hours): 1-888-853-1758

Transport Emergency Phone Number (CHEMTREC): 1-800-424-9300

Recommended use of the chemical and restrictions on use

Recommended use : Activator

Restrictions on use : For industrial use only.

SECTION 2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance	liquid
Color	green
Odor	ammoniacal

GHS Classification

Skin corrosion : Category 1B
Serious eye damage : Category 1
Skin sensitization : Category 1

GHS label elements

Hazard pictograms :



Signal Word : Danger

Hazard Statements:

H314 Causes severe skin burns and eye damage. H317 May cause an allergic skin reaction.

Precautionary Statements:

Prevention: P261 Avoid breathing mist or vapors. P264 Wash skin thoroughly after handling. P272



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Contaminated work clothing must not be allowed out of the workplace. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response: P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower. P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor. P305 + P351 + P338 + P310 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/ doctor. P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention. P363 Wash contaminated clothing before reuse.

Storage: P405 Store locked up.

Disposal: P501 Dispose of contents/ container to an approved waste disposal plant.

Potential Health Effects**Carcinogenicity:****IARC**

Group 2B: Possibly carcinogenic to humans

cobalt chromite blue green 68187-11-1
spinel

cobalt chromite green spinel 68187-49-5

OSHA

No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP

No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Additional Labeling:

The following percentage of the mixture consists of ingredient(s) with unknown acute toxicity:
79 %

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous ingredients

Chemical name	CAS-No.	Concentration [%]
triethylenetetramine	112-24-3	5 - 10
Silica, amorphous fumed	112945-52-5	5 - 10
cobalt chromite blue green spinel	68187-11-1	1 - 5
cobalt chromite green spinel	68187-49-5	0.1 - 1

Actual concentration is withheld as a trade secret

SECTION 4. FIRST AID MEASURES

General advice : Show this material safety data sheet to the doctor in attendance.



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- If inhaled : Move to fresh air.
If symptoms persist, call a physician.
- In case of skin contact : Wash off with soap and water.
- In case of eye contact : In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- If swallowed : Do not induce vomiting. Seek medical attention if symptoms develop. Provide medical care provider with this SDS.

SECTION 5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
- Special protective equipment for fire-fighters : Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Refer to protective measures listed in sections 7 and 8.
- Methods and materials for containment and cleaning up : Scrape up.
Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
Shovel into suitable container for disposal.

SECTION 7. HANDLING AND STORAGE

- Advice on safe handling : No special precautions are needed in handling this material.
- Conditions for safe storage : Keep in a dry, cool place.
- Materials to avoid : No special restrictions on storage with other products.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Ingredients with workplace control parameters**

Components	CAS-No.	Value type (Form of	Control parameters /	Basis
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		exposure)	Permissible concentration	
Silica, amorphous fumed	112945-52-5	TWA (Dust)	20 Million particles per cubic foot	OSHA Z-3
		TWA (Dust)	80 mg/m3 / %SiO2	OSHA Z-3
		TWA (Dust)	20 Million particles per cubic foot	OSHA Z-3
		TWA (Dust)	80 mg/m3 / %SiO2	OSHA Z-3
cobalt chromite blue green spinel	68187-11-1	TWA	0.5 mg/m3	OSHA Z-1
		TWA	0.02 mg/m3	ACGIH
		TWA	0.5 mg/m3	NIOSH REL
		TWA	0.5 mg/m3	OSHA Z-1
		TWA	0.02 mg/m3	ACGIH
		TWA	0.5 mg/m3	NIOSH REL
cobalt chromite green spinel	68187-49-5	TWA	0.02 mg/m3	ACGIH
		TWA	0.02 mg/m3	ACGIH

Personal protective equipment

Respiratory protection : No personal respiratory protective equipment normally required.
In case of insufficient ventilation, wear suitable respiratory equipment.

Hand protection
Material : Nitrile rubber

Eye protection : Safety glasses

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: liquid
Color	: green
Odor	: ammoniacal
Odor Threshold	: no data available
pH	: not applicable
Melting point/freezing point	: is not determined
	: 205.6 °C
Initial boiling point and boiling range	is not determined
Flash point	: 135 °C



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Evaporation rate	: not applicable
Flammability (solid, gas)	: is not determined
	: Not classified as a flammability hazard
Upper explosion limit	: Upper flammability limit
	: not applicable
Lower explosion limit	: Lower flammability limit
	: not applicable
Vapor pressure	: is not determined
Density	: 1.1 g/cm3
Solubility(ies)	
Water solubility	: dispersible
Partition coefficient: n-octanol/water	: no data available
Autoignition temperature	: is not determined
Viscosity	
Viscosity, kinematic	: is not determined

SECTION 10. STABILITY AND REACTIVITY

Chemical stability	: The product is chemically stable.
Possibility of hazardous reactions	: Hazardous polymerization does not occur.
Hazardous decomposition products	: Stable under normal conditions.

SECTION 11. TOXICOLOGICAL INFORMATION**Acute toxicity****Product:**

Acute oral toxicity	: Acute toxicity estimate : > 5,000 mg/kg Method: Calculation method
Acute dermal toxicity	: Acute toxicity estimate : 2,538 mg/kg Method: Calculation method

Components:**triethylenetetramine:**

Acute oral toxicity	: LD50 Oral Rat: 2,500 mg/kg
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Skin corrosion/irritation



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No data available

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

No data available

Reproductive toxicity

No data available

STOT-single exposure

No data available

STOT-repeated exposure

No data available

Aspiration toxicity

No data available

SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity****Components:****triethylenetetramine :**

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 31.1 mg/l
Exposure time: 48 h
Test Method: static test

Toxicity to algae : EC50 (Desmodesmus subspicatus (green algae)): 2.5 mg/l
Exposure time: 72 h
Test Type: flow-through test

Persistence and degradability

No data available

Bioaccumulative potential**Mobility in soil**

No data available



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Other adverse effects

No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : To the best of our knowledge, this product does not meet the definition of hazardous waste under the U.S. EPA Hazardous Waste Regulations 40 CFR 261. Solidify and dispose of in an approved landfill. Consult state, local or provincial authorities for more restrictive requirements.

SECTION 14. TRANSPORT INFORMATION

International Regulations

IATA-DGR

UN/ID No. : UN 2735
Proper shipping name : Amines, liquid, corrosive, n.o.s.
(N-[2-(imidazolidin-1-yl)ethyl]ethylenediamine)
Class : 8
Packing group : III
Labels : Corrosive
Packing instruction (cargo aircraft) : 856
Packing instruction (passenger aircraft) : 852

IMDG-Code

UN number : UN 2735
Proper shipping name : AMINES, LIQUID, CORROSIVE, N.O.S.
(N-[2-(imidazolidin-1-yl)ethyl]ethylenediamine)
Class : 8
Packing group : III
Labels : 8
EmS Code : F-A, S-B
Marine pollutant : no

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

Domestic regulation

49 CFR

UN/ID/NA number : UN 2735
Proper shipping name : Amines, liquid, corrosive, n.o.s.
(N-[2-(imidazolidin-1-yl)ethyl]ethylenediamine)
Class : 8
Packing group : III



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Labels : CORROSIVE
ERG Code : 153
Marine pollutant : no

Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

SECTION 15. REGULATORY INFORMATION

SARA 311/312 Hazards : Respiratory or skin sensitization
Skin corrosion or irritation
Serious eye damage or eye irritation

SARA 302 : This material does not contain any components with a section 302 EHS TPQ.

SARA 313 : The following components are subject to reporting levels established by SARA Title III, Section 313:

cobalt chromite blue green spinel	68187-11-1
cobalt chromite green spinel	68187-49-5

Clean Air Act

The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 112 (40 CFR 61):

cobalt chromite blue green spinel	68187-11-1
cobalt chromite green spinel	68187-49-5

US State Regulations

California Prop 65 : Please contact Supplier for more information.

The ingredients of this product are reported in the following inventories:

TSCA All substances listed as active on the TSCA inventory

AIIC On the inventory, or in compliance with the inventory
Inventories Legend TSCA (USA), DSL (Canada), REACH(Europe), AIIC (Australia), NZIoC (New Zealand), ENCS (Japan), KECI (Korea), PICCS (Philippines), IECSC (China), TWINV (Taiwan)



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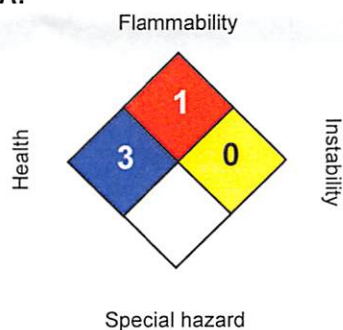
Revision Date 05/20/2022

SECTION 16. OTHER INFORMATION

Prepared by: Global Regulatory Office - phone: 1-651-236-5842 - email: msds.request@hbfuller.com

Further information

NFPA:



HMIS III:

HEALTH	3
FLAMMABILITY	1
PHYSICAL HAZARD	0

0 = not significant, 1 = Slight,
 2 = Moderate, 3 = High
 4 = Extreme, * = Chronic