

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 25.01.2022

Version number 1

Revision: 25.01.2022

SECTION 1: Identification of the substance/mixture and of the company/undertaking

- **1.1 Product identifier**
- **Trade name: Epoxy Curing Agent**
- **Article number:** Cardolite NX-8402
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
- **Sector of Use** SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites
- **Product category** PC9a Coatings and paints, thinners, paint removers
- **Application of the substance / the mixture** Coating
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
CARDOLITE SPECIALTY CHEMICALS EUROPE N.V.
Wijmenstraat 21 K , Bus 2
9030 Mariakerke – Gent
Tel. : +32 9 265.88.26 (Belgium)
Fax. : +32 9 265.88.24 (Belgium)
regulatory@cardolite.com
eumsds@cardolite.com
- **Further information obtainable from:** Product safety department
- **1.4 Emergency telephone number:**
During business hours: +32 9 265.88.26 (Belgium)
24 Hour Emergency: 800-424-9300 CHEMTREC

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS05 corrosion

Eye Dam. 1 H318 Causes serious eye damage.



GHS07

Skin Sens. 1 H317 May cause an allergic skin reaction.

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the CLP regulation.
- **Hazard pictograms**



GHS05



GHS07

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- **Signal word** Danger
- **Hazard-determining components of labelling:**
 salicylic acid
 Cashew (Anacardium occidentale) Nutshell Extract, decarboxylated, Distilled
 Ethylenediamine
 m-Phenylenebis(methylamine)
- **Hazard statements**
 H318 Causes serious eye damage.
 H317 May cause an allergic skin reaction.
- **Precautionary statements**
 P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P310 Immediately call a POISON CENTER/doctor.
 P321 Specific treatment (see on this label).
 P362+P364 Take off contaminated clothing and wash it before reuse.
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

- **3.2 Chemical characterisation: Mixtures**
- **Description:** Mixture of substances listed below with nonhazardous additions.

- **Dangerous components:**

CAS: 69-72-7 EINECS: 200-712-3 Index number: 607-732-00-5 Reg.nr.: 01-2119486984-17-xxxx	salicylic acid ☠ Repr. 2, H361d; ☠ Eye Dam. 1, H318; ☠ Acute Tox. 4, H302	< 3.0%
CAS: 90-72-2 EINECS: 202-013-9 Index number: 603-069-00-0	2,4,6-Tris(Dimethylaminomethyl)Phenol ☠ Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2, H319	< 3.0%
CAS: 10563-29-8 EINECS: 234-148-4	N ⁱ -(3-aminopropyl)-N,N-dimethylpropane-1,3-diamine ☠ Acute Tox. 4, H312	< 3.0%
CAS: 8007-24-7 EC number: 700-991-6 Reg.nr.: 01-2119502450-57-0000	Cashew (Anacardium occidentale) Nutshell Extract, decarboxylated, Distilled ☠ Eye Dam. 1, H318; ☠ Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Irrit. 2, H315; Skin Sens. 1A, H317	< 2.0%
CAS: 1477-55-0 EINECS: 216-032-5 Reg.nr.: 01-2119480150-50-0000	m-Phenylenebis(methylamine) ☠ Skin Corr. 1B, H314; ☠ Acute Tox. 4, H302; Acute Tox. 4, H332; Skin Sens. 1, H317; Aquatic Chronic 3, H412	< 1.0%

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CAS: 107-15-3 EINECS: 203-468-6 Index number: 612-006-00-6 Reg.nr.: 01-2119480383-37-0012	Ethylenediamine ⚠ Flam. Liq. 3, H226; ⚠ Resp. Sens. 1, H334; ⚠ Skin Corr. 1B, H314; ⚠ Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Sens. 1, H317	< 0.5%
CAS: 108-95-2 EINECS: 203-632-7 Index number: 604-001-00-2 Reg.nr.: 01-2119471329-32-0080	Phenol ⚠ Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331; ⚠ Muta. 2, H341; STOT RE 2, H373; ⚠ Skin Corr. 1B, H314	< 0.5%

- **SVHC**

107-15-3	Ethylenediamine
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- **Additional information:** For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **General information:** Immediately remove any clothing soiled by the product.
- **After inhalation:**
 Supply fresh air and to be sure call for a doctor.
 In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:** If symptoms persist consult doctor.
- **4.2 Most important symptoms and effects, both acute and delayed**
 No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**
 No further relevant information available.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.
- **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
- **5.3 Advice for firefighters**
 Promptly isolate the scene by removing all person from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
- **Protective equipment:** No special measures required.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
 Wear protective equipment. Keep unprotected persons away.
- **6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.

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- **6.3 Methods and material for containment and cleaning up:**
 Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
 Use neutralising agent.
 Dispose contaminated material as waste according to item 13.
 Ensure adequate ventilation.
- **6.4 Reference to other sections**
 See Section 7 for information on safe handling.
 See Section 8 for information on personal protection equipment.
 See Section 13 for disposal information.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
 Ensure good ventilation/exhaustion at the workplace.
 Prevent formation of aerosols.
- **Information about fire - and explosion protection:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep container tightly sealed.
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **8.1 Control parameters**
- **Additional information about design of technical facilities:** No further data; see item 7.
- **Ingredients with limit values that require monitoring at the workplace:**

108-95-2 Phenol

IOELV	Short-term value: 16 mg/m ³ , 4 ppm Long-term value: 8 mg/m ³ , 2 ppm Skin
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- **DNELs**

8007-24-7 Cashew (Anacardium occidentale) Nutshell Extract, decarboxylated, Distilled

Oral	DNEL	0.25 mg/kg/day (General Population)
Dermal	DNEL	0.25 mg/kg/day (General Population)
		0.5 mg/kg/day (Workers)
Inhalative	DNEL	0.2 mg/m ³ (General Population)
		0.88 mg/m ³ (Workers)

- **PNECs**

8007-24-7 Cashew (Anacardium occidentale) Nutshell Extract, decarboxylated, Distilled

PNEC	3 µg/l (Aqua (freshwater)) 30 µg/l (Aqua (intermittent release))
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PNEC	10 mg/kg (Oral)
	0.97 mg/kg (Sediment (freshwater))
	0.088 mg/kg (Sediment (marine water))
	6.71 mg/kg (Soil)

- **Additional information:** The lists valid during the making were used as basis.
- **8.2 Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Avoid contact with the skin.
Avoid contact with the eyes and skin.
- **Respiratory protection:**
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
- **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:**



Tightly sealed goggles

- **Body protection:** Protective work clothing

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SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

Form:	Liquid
Colour:	Cream coloured

- **Odour:** Amine-like

- **Odour threshold:** Not determined.

- **pH-value at 25 °C:** 9.6

- **Change in condition**

Melting point/freezing point:	Undetermined.
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Initial boiling point and boiling range:	Undetermined.
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- **Flash point:** 101 °C

- **Flammability (solid, gas):** Not applicable.

- **Decomposition temperature:** Not determined.

- **Auto-ignition temperature:** Product is not selfigniting.

- **Explosive properties:** Product does not present an explosion hazard.

- **Explosion limits:**

Lower:	Not determined.
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Upper:	Not determined.
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- **Vapour pressure:** Not determined.

- **Density at 25 °C:** 1.0451 g/cm³

- **Relative density** Not determined.

- **Vapour density** Not determined.

- **Evaporation rate** Not determined.

- **Solubility in / Miscibility with water:**

Not miscible or difficult to mix.

- **Partition coefficient: n-octanol/water:** Not determined.

- **Viscosity:**

Dynamic at 25 °C:	15,000 - 25,000 cps
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Kinematic:	Not determined.
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- **Solvent content:**

Solids content:	50.0 %
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- **9.2 Other information** No further relevant information available.

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.

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- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.
- **LD/LC50 values relevant for classification:**
Irritating to eyes and skin.

69-72-7 salicylic acid		
Oral	LD50	891 mg/kg (rat)
90-72-2 2,4,6-Tris(Dimethylaminomethyl)Phenol		
Oral	LD50	2,169 mg/kg (rat)
Dermal	LD50	1,260 mg/kg (rabbit)
8007-24-7 Cashew (Anacardium occidentale) Nutshell Extract, decarboxylated, Distilled		
Oral	LD50	>2,000 mg/kg (rat)
Dermal	LD50	2,000 mg/kg (rat)
1477-55-0 m-Phenylenebis(methylamine)		
Oral	LD50	1,040 mg/kg (rat)
Inhalative	LC50/4 h	2.4 mg/l (rat)
107-15-3 Ethylenediamine		
Oral	LD50	866 mg/kg (rat)
Dermal	LD50	560 mg/kg (rabbit)
Inhalative	LC50/4 h	14.7 mg/l (rat)
108-95-2 Phenol		
Oral	LD50	317 mg/kg (rat)
Dermal	LD50	850 mg/kg (rabbit)

- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation**
Causes serious eye damage.
- **Respiratory or skin sensitisation**
May cause an allergic skin reaction.
- **Additional toxicological information:**
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.

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- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

- **12.1 Toxicity**

- **Aquatic toxicity:**

8007-24-7 Cashew (Anacardium occidentale) Nutshell Extract, decarboxylated, Distilled

EC50 1,300 mg/l (Algae)

LL50 1,000 mg/l (Fish)

- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
 Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
 Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
 Must not reach sewage water or drainage ditch undiluted or unneutralised.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**
 Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

- | | |
|--|---|
| <ul style="list-style-type: none"> · 14.1 UN-Number · ADR, ADN, IMDG, IATA | Non-hazardous for transport |
| <ul style="list-style-type: none"> · 14.2 UN proper shipping name · ADR, ADN, IMDG, IATA | Non-hazardous for transport |
| <ul style="list-style-type: none"> · 14.3 Transport hazard class(es) · ADR · Class | Non-hazardous for transport
Miscellaneous dangerous substances and articles. |

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· ADN/R Class:	Non-hazardous for transport
· 14.4 Packing group · ADR, IMDG, IATA	Non-hazardous for transport
· 14.5 Environmental hazards: · Marine pollutant:	No
· 14.6 Special precautions for user	Not applicable.
· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· UN "Model Regulation":	Non-hazardous for transport

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the CLP regulation.
- **Hazard pictograms**



GHS05 GHS07

- **Signal word** Danger
- **Hazard-determining components of labelling:**
salicylic acid
Cashew (*Anacardium occidentale*) Nutshell Extract, decarboxylated, Distilled
Ethylenediamine
m-Phenylenebis(methylamine)
- **Hazard statements**
H318 Causes serious eye damage.
H317 May cause an allergic skin reaction.
- **Precautionary statements**
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER/doctor.
P321 Specific treatment (see on this label).
P362+P364 Take off contaminated clothing and wash it before reuse.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** None of the ingredients is listed.

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· LIST OF SUBSTANCES SUBJECT TO AUTHORISATION (ANNEX XIV)

107-15-3 Ethylenediamine

Candidate list

· REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3

· DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II

None of the ingredients is listed.

· REGULATION (EU) 2019/1148
· Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))

None of the ingredients is listed.

· Annex II - REPORTABLE EXPLOSIVES PRECURSORS

None of the ingredients is listed.

· Regulation (EC) No 273/2004 on drug precursors

None of the ingredients is listed.

· Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors

None of the ingredients is listed.

· National regulations:
· Other regulations, limitations and prohibitive regulations
· Substances of very high concern (SVHC) according to REACH, Article 57

107-15-3 Ethylenediamine

· 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Relevant phrases

H226 Flammable liquid and vapour.

H301 Toxic if swallowed.

H302 Harmful if swallowed.

H311 Toxic in contact with skin.

H312 Harmful in contact with skin.

H314 Causes severe skin burns and eye damage.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H319 Causes serious eye irritation.

H331 Toxic if inhaled.

H332 Harmful if inhaled.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H341 Suspected of causing genetic defects.

H361d Suspected of damaging the unborn child.

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H373 May cause damage to organs through prolonged or repeated exposure.

H412 Harmful to aquatic life with long lasting effects.

• **Department issuing SDS:** Product safety department

• **Contact:** Mr Eleazar dela Cruz

• **Abbreviations and acronyms:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 3: Flammable liquids – Category 3

Acute Tox. 3: Acute toxicity – Category 3

Acute Tox. 4: Acute toxicity – Category 4

Skin Corr. 1B: Skin corrosion/irritation – Category 1B

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Dam. 1: Serious eye damage/eye irritation – Category 1

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

Resp. Sens. 1: Respiratory sensitisation – Category 1

Skin Sens. 1: Skin sensitisation – Category 1

Skin Sens. 1A: Skin sensitisation – Category 1A

Muta. 2: Germ cell mutagenicity – Category 2

Repr. 2: Reproductive toxicity – Category 2

STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

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