



1 Identification

- **Product identifier**
- **Product Description:** CNSL polyol polymer
- **Product code:** Cardolite GX-9102
- **Application of the substance / the mixture**
 Coating
 Experimental product for R&D
 Experimental product for R&D purpose.
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
 Cardolite Corporation
 500 Doremus Avenue
 Newark, NJ 07105
 USA
 Tel: (973) 344-5015
 Fax: (973) 344-1197
 edelacruz@cardolite.com
- **Information department:** Product safety department
- **Emergency telephone number:** 24 Hour Emergency: 800-424-9300 CHEMTREC

2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS08 Health hazard

Carc. 2 H351 Suspected of causing cancer.

STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.



GHS05 Corrosion

Eye Dam. 1 H318 Causes serious eye damage.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

- **Label elements**

- **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**



GHS05 GHS08

- **Signal word** Danger

- **Hazard-determining components of labeling:**

Cashew nutshell liquid

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2,2'-iminodiethanol

2-aminoethanol

• Hazard statements

H315 Causes skin irritation.

H318 Causes serious eye damage.

H351 Suspected of causing cancer.

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

• Precautionary statements

P260 Do not breathe dust/fume/gas/mist/vapors/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).

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

• Classification system:
• NFPA ratings (scale 0 - 4)


Health = 2

Fire = 1

Reactivity = 0

• HMIS-ratings (scale 0 - 4)









Health = *2

Fire = 1

Reactivity = 0

• Other hazards
• Results of PBT and vPvB assessment
• **PBT:** Not applicable.• **vPvB:** Not applicable.
3 Composition/information on ingredients
• Chemical characterization: Mixtures
• Description: Mixture of the substances listed below with nonhazardous additions.

• Dangerous components:

8007-24-7	Cashew nutshell liquid  Eye Dam. 1, H318;  Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Irrit. 2, H315; Skin Sens. 1A, H317	< 10.0%
111-42-2	2,2'-iminodiethanol  Carc. 2, H351; STOT RE 2, H373;  Eye Dam. 1, H318;  Acute Tox. 4, H302; Skin Irrit. 2, H315	< 5.0%
141-43-5	2-aminoethanol  Skin Corr. 1B, H314;  Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; Flam. Liq. 4, H227	< 3.0%

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4 First-aid measures**· Description of first aid measures****· 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.**· Information for doctor:****· Most important symptoms and effects, both acute and delayed**

No further relevant information available.

· Indication of any immediate medical attention and special treatment needed

No further relevant information available.

5 Fire-fighting measures**· Extinguishing media****· Suitable extinguishing agents:** Use fire fighting measures that suit the environment.**· Special hazards arising from the substance or mixture** No further relevant information available.**· 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.**6 Accidental release measures****· Personal precautions, protective equipment and emergency procedures** Not required.**· Environmental precautions:** Do not allow to enter sewers/ surface or ground water.**· Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Ensure adequate ventilation.

· 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.

7 Handling and storage**· Handling:****· Precautions for safe handling**

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

· Information about protection against explosions and fires: No special measures required.**· Conditions for safe storage, including any incompatibilities**

Keep container tightly closed and in a well ventilated place.

· 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 receptacle tightly sealed.

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- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.

- **Control parameters**

- **Components with limit values that require monitoring at the workplace:**

111-42-2 2,2'-iminodiethanol

REL	Long-term value: 15 mg/m ³ , 3 ppm
TLV	Long-term value: 1* mg/m ³ , 0.2* ppm Skin; *inhalable fraction and vapor

141-43-5 2-aminoethanol

PEL	Long-term value: 6 mg/m ³ , 3 ppm
REL	Short-term value: 15 mg/m ³ , 6 ppm Long-term value: 8 mg/m ³ , 3 ppm
TLV	Short-term value: 15 mg/m ³ , 6 ppm Long-term value: 7.5 mg/m ³ , 3 ppm

- **Additional information:** The lists that were valid during the creation were used as basis.
- **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 eyes.
- **Breathing equipment:**
 In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
 If exposure are expected, use of NIOSH-certified organic-vapor cartridge with a particulate pre-filter.
- **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.

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 · **Eye protection:**


Tightly sealed goggles

 · **Body protection:** Protective work clothing

9 Physical and chemical properties

 · **Information on basic physical and chemical properties**

 · **General Information**

 · **Appearance:**

Form:

Liquid

Color:

Red-brown

 · **Odor:**

Mineral-oil-like

 · **Odour threshold:**

Not determined.

 · **pH-value:**

Not determined.

 · **Change in condition**

Melting point/Melting range:

Undetermined.

Boiling point/Boiling range:

Undetermined.

 · **Flash point:**

> 100 °C (> 212 °F)

 · **Flammability (solid, gaseous):**

Not applicable.

 · **Ignition temperature:**

Decomposition temperature:

Not determined.

 · **Auto igniting:**

Product is not selfigniting.

 · **Danger of explosion:**

Product does not present an explosion hazard.

 · **Explosion limits:**

Lower:

Not determined.

Upper:

Not determined.

 · **Vapor pressure:**

Not determined.

 · **Density at 25 °C (77 °F):**
1.00116 g/cm³ (8.355 lbs/gal)
 · **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:

Not determined.

Kinematic:

Not determined.

 · **Other information**

No further relevant information available.

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10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability** Product is stable.
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **LD/LC50 values that are relevant for classification:** Irritating to eyes and skin.
- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** Strong irritant with the danger of severe eye injury.
- **Sensitization:** Sensitization possible through skin contact.
- **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
Irritant
- **Carcinogenic categories**

IARC (International Agency for Research on Cancer)

111-42-2 | 2,2'-iminodiethanol

3

NTP (National Toxicology Program)

None of the ingredients is listed.

OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Water hazard class 1 (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.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

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Product Description: CNSL polyol polymer

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- **Other adverse effects** No further relevant information available.

13 Disposal considerations

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

14 Transport information

- | | |
|--|-----------------------------|
| • UN-Number | |
| • DOT, ADR, ADN, IMDG, IATA | Non-hazardous for transport |
| • UN proper shipping name | |
| • DOT, ADR, ADN, IMDG, IATA | Non-hazardous for transport |
| • Transport hazard class(es) | |
| • DOT, ADR, ADN, IMDG, IATA | |
| • Class | Non-hazardous for transport |
| • Packing group | |
| • DOT, ADR, IMDG, IATA | Non-hazardous for transport |
| • Environmental hazards: | |
| • Marine pollutant: | No |
| • Special precautions for user | Not applicable. |
| • Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |
| • UN "Model Regulation": | - |

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Sara**

Section 355 (extremely hazardous substances):

None of the ingredients is listed.

Section 313 (Specific toxic chemical listings):

111-42-2 | 2,2'-iminodiethanol

TSCA (Toxic Substances Control Act):

All ingredients are listed.

Proposition 65
Chemicals known to cause cancer:

111-42-2 | 2,2'-iminodiethanol

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Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

Carcinogenic categories
EPA (Environmental Protection Agency)

None of the ingredients is listed.

TLV (Threshold Limit Value established by ACGIH)

111-42-2 2,2'-iminodiethanol

A3

NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

Hazard pictograms


GHS05 GHS08

Signal word Danger

Hazard-determining components of labeling:

Cashew nutshell liquid

2,2'-iminodiethanol

2-aminoethanol

Hazard statements

H315 Causes skin irritation.

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H351 Suspected of causing cancer.

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Precautionary statements

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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).

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

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

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.

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

• **Contact:** Mr Eleazar dela Cruz

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US



Printing date 08/19/2015

Safety Data Sheet

acc. to OSHA HCS

Version 1

Reviewed on 08/19/2015

Product Description: CNSL polyol polymer

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· **Date of preparation / last revision** 08/19/2015 / -

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

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)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 4: Flammable liquids, Hazard Category 4

Acute Tox. 4: Acute toxicity, Hazard Category 4

Skin Corr. 1B: Skin corrosion/irritation, Hazard Category 1B

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1

Skin Sens. 1A: Sensitisation - Skin, Hazard Category 1A

Carc. 2: Carcinogenicity, Hazard Category 2

STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2

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