

Printing date 03/01/2018 Version 3 Reviewed on 03/01/2018

1 Identification

· Product identifier

· Product Description: CNSL-based Polyol

Product code: Cardolite NX-9001

Application of the substance / the mixture

Resin Coating

· Details of the supplier of the safety data sheet

· Manufacturer/Supplier:

Cardolite Corporation

11 Deer Park Drive, Suite 124 Monmouth Junction, NJ 08852

USA

Tel: (973) 344-5015 Regulatory@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



GHS07

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

- · Label elements
- · GHS label elements

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

· Hazard pictograms



GHS07

- · Signal word Warning
- · Hazard-determining components of labeling:

Cashew (Anacardium occidentale) Nutshell Extract, decarboxylated, Distilled

· Hazard statements

H317 May cause an allergic skin reaction.

· Precautionary statements

P261 Avoid breathing dust/fume/gas/mist/vapors/spray

P280 Wear protective gloves.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

P321 Specific treatment (see on this label).
P363 Wash contaminated clothing before reuse.

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

regulations.

(Contd. on page 2)

(Contd. of page 1)



Safety Data Sheet acc. to OSHA HCS

Printing date 03/01/2018 Version 3 Reviewed on 03/01/2018

Product Description: CNSL-based Polyol

· Classification system:

· NFPA ratings (scale 0 - 4)



· HMIS-ratings (scale 0 - 4)



Health = 1 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 (Anacardium occidentale) Nutshell Extract, decarboxylated, Distilled < 2.0% Eye Dam. 1, H318; Acute Tox. 4, H312; Skin Irrit. 2, H315; Skin Sens. 1A, H317

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 eve contact: Rinse opened eve for several minutes under running water.
- · 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:
 - CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- · Special hazards arising from the substance or mixture No further relevant information available.

(Contd. on page 3)



Printing date 03/01/2018 Version 3 Reviewed on 03/01/2018

Product Description: CNSL-based Polyol

(Contd. of page 2)

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).

Dispose contaminated material as waste according to item 13.

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.

· Protective Action Criteria for Chemicals

· PAC-1:

None of the ingredients is listed.

· PAC-2:

None of the ingredients is listed.

· PAC-3:

None of the ingredients is listed.

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: None.
- · 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:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

(Contd. on page 4)



Printing date 03/01/2018 Version 3 Reviewed on 03/01/2018

Product Description: CNSL-based Polyol

(Contd. of page 3)

· Additional information: The lists that were valid during the creation were used as basis.

Exposure controls

Use local exhaust ventilation. Suitable respiratory equipment should be used in cases of insufficient ventilation.

- · Personal protective equipment:
- · General protective and hygienic measures:

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

· 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.

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: Goggles recommended during refilling.
- · Body protection: Protective work clothing

9 Physical and chemical properties

milorination on bacic priyologi and oncomical proportio	d chemical properties	chemica	and o	hysica	basic pl	ion on	format	· In
---	-----------------------	---------	-------	--------	----------	--------	--------	------

General Information

· Appearance:

Form: Liquid
Color: Red-brown

Odor: Mineral-oil-like
Odor threshold: Not determined.

• pH-value at 25 °C (77 °F): 8.5

· Change in condition

Melting point/Melting range:Undetermined.Boiling point/Boiling range:> 100 $^{\circ}$ C (>212 $^{\circ}$ F)

• Flash point: 94 °C (201.2 °F)

· Flammability (solid, gaseous): Not applicable.

(Contd. on page 5)



Printing date 03/01/2018 Version 3 Reviewed on 03/01/2018

Product Description: CNSL-based Polyol

	(Contd. of page
· 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):	0.98497 g/cm3 (8.21957 lbs/gal)
Relative density	Not determined.
Vapor density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with	
Water:	Not miscible or difficult to mix.
· Partition coefficient (n-octanol/w	rater): Not determined.
· Viscosity:	
Dynamic at 25 ℃ (77 °F):	2000 Cps
Kinematic:	Not determined.
· Solvent content:	
Solids content:	98.0 %
· Other information	No further relevant information available.

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:

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

Oral LD50 >2,000 mg/kg (rat)
Dermal LD50 2,000 mg/kg (rat)

- Primary irritant effect:
- · on the skin: No irritant effect.
- · on the eye: No irritating effect.

(Contd. on page 6)



Printing date 03/01/2018 Version 3 Reviewed on 03/01/2018

Product Description: CNSL-based Polyol

(Contd. of page 5)

· **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)

None of the ingredients is listed.

· 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:

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

EC50 1,300 mg/l (Algae)

LL50 1,000 mg/l (Fish)

- · 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.
- · 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.



Printing date 03/01/2018 Version 3 Reviewed on 03/01/2018

Product Description: CNSL-based Polyol

(Contd. of page 6)

4 Transport information	
· UN-Number · DOT, ADR, IMDG, IATA · ADN	Non-hazardous for transport N/A
UN proper shipping nameDOT, ADR, IMDG, IATAADN	Not regulated as dangerous goods. Non-hazardous for transport N/A
· Transport hazard class(es)	
· DOT, IMDG, IATA · Class	Non-hazardous for transport
· ADR · Class · ADN/R Class:	Non-hazardous for transport Miscellaneous dangerous substances and articles N/A
· 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 MARPOL73/78 and the IBC Code 	of Not applicable.
· UN "Model Regulation":	Non-hazardous for transport

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):

None of the ingredients is listed.

· TSCA (Toxic Substances Control Act):

All ingredients are listed.

· Proposition 65

· Chemicals known to cause cancer:

None of the ingredients is listed.

· 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.

(Contd. on page 8)



Printing date 03/01/2018 Version 3 Reviewed on 03/01/2018

Product Description: CNSL-based Polyol

(Contd. of page 7)

· Carcinogenic categories

· EPA (Environmental Protection Agency)

None of the ingredients is listed.

TLV (Threshold Limit Value established by ACGIH)

None of the ingredients is listed.

· 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



· Signal word Warning

· Hazard-determining components of labeling:

Cashew (Anacardium occidentale) Nutshell Extract, decarboxylated, Distilled

Hazard statements

H317 May cause an allergic skin reaction.

· Precautionary statements

P261 Avoid breathing dust/fume/gas/mist/vapors/spray

P280 Wear protective gloves.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

P321 Specific treatment (see on this label).
P363 Wash contaminated clothing before reuse.

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
- Date of preparation / last revision 03/01/2018 / 2
- · 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



Printing date 03/01/2018 Version 3 Reviewed on 03/01/2018

Product Description: CNSL-based Polyol

vPvB: very Persistent and very Bioaccumulative NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health TVL: Treshold Limit Value PEL: Permissible Exposure Limit REL: Recommended Exposure Limit

Acute Tox. 4: Acute toxicity – Category 4 Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Dam. 1: Serious eye damage/eye irritation – Category 1 Skin Sens. 1: Skin sensitisation – Category 1 Skin Sens. 1A: Skin sensitisation – Category 1A

(Contd. of page 8)

US