Safety Data Sheet acc. to OSHA HCS

Reviewed on 03/06/2014

1 Identification

· Product identifier

· Product Description: CNSL Resin

Product code: Cardolite NX-4778

· CAS Number: 68390-35-2

Application of the substance / the mixture

Intermediate

Resin

· 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



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

· Classification according to Directive 67/548/EEC or Directive 1999/45/EC



Irritant

May cause sensitisation by skin contact.

- Information concerning particular hazards for human and environment: Not applicable.
- · Label elements
- GHS label elements

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

· Hazard pictograms



- · Signal word Warning
- · Hazard statements

H317 May cause an allergic skin reaction.

· Precautionary statements

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P103 Read label before use.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

Wear protective gloves/protective clothing/eye protection/face protection. P280

(Contd. on page 2)

(Contd. of page 1)

Cardolite Printing date 03/06/2014

Safety Data Sheet acc. to OSHA HCS

Reviewed on 03/06/2014

Product Description: CNSL Resin

P321 Specific treatment (see on this label).

P363 Wash contaminated clothing before reuse.

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

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

regulations.

Classification system:

· NFPA ratings (scale 0 - 4)



Health = 0 Fire = 1 Reactivity = 0

· HMIS-ratings (scale 0 - 4)



Health = 0 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: Substances
- · CAS No. Description

68390-35-2 Cashew nutshell liquid polymer 100%

· Identification number(s)

SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites

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.
- · 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)



Safety Data Sheet acc. to OSHA HCS

Reviewed on 03/06/2014

Product Description: CNSL Resin

· Advice for firefighters

(Contd. of page 2)

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: 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: Not required.
- · Additional information: The lists that were valid during the creation were used as basis.
- · Exposure controls
- · 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.

(Contd. on page 4)

Safety Data Sheet acc. to OSHA HCS

Reviewed on 03/06/2014

Product Description: CNSL Resin

· Protection of hands:

(Contd. of page 3)



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.

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

Information on basic physical and chemical properties General Information Appearance: Form: Color: Dark brown Odor: Odour threshold: Not determined. PH-value at 25 °C (77 °F): 3 Change in condition Melting point/Melting range: Boiling point/Boiling range: Undetermined. Flash point: Flash point: Flammability (solid, gaseous): Not applicable. Ignition temperature: Decomposition temperature: Not determined. Auto igniting: Not determined. Danger of explosion: Product does not present an explosion hazard. Explosion limits: Lower: Upper: Not determined. Not determined. Not determined.	9 Physical and chemical properties	
· Change in condition Melting point/Melting range: Boiling point/Boiling range: Undetermined. · Flash point: 94 °C (201 °F) · Flammability (solid, gaseous): Not applicable. · Ignition temperature: Decomposition temperature: Not determined. · Auto igniting: Not determined. · Danger of explosion: Product does not present an explosion hazard. · Explosion limits: Lower: Not determined.	General Information Appearance: Form: Color: Odor:	Viscous Dark brown Oil like odor
Melting point/Melting range: Undetermined. Boiling point/Boiling range: Undetermined. Flash point: 94 °C (201 °F) Flammability (solid, gaseous): Not applicable. Ignition temperature: Not determined. Auto igniting: Not determined. Danger of explosion: Product does not present an explosion hazard. Explosion limits: Not determined. Not determined. Not determined.	· pH-value at 25 ℃ (77 ℉):	3
 Flammability (solid, gaseous): Not applicable. Ignition temperature: Not determined. Auto igniting: Not determined. Danger of explosion: Product does not present an explosion hazard. Explosion limits: Not determined. 	Melting point/Melting range:	
 Ignition temperature: Decomposition temperature: Not determined. Auto igniting: Danger of explosion: Product does not present an explosion hazard. Explosion limits: Lower: Not determined. 	· Flash point:	94 °C (201 °F)
Decomposition temperature: Not determined. Not determined. Danger of explosion: Product does not present an explosion hazard. Explosion limits: Lower: Not determined.	· Flammability (solid, gaseous):	Not applicable.
 Auto igniting: Not determined. Danger of explosion: Product does not present an explosion hazard. Explosion limits: Lower: Not determined. 	· Ignition temperature:	
 Danger of explosion: Explosion limits: Lower: Product does not present an explosion hazard. 	Decomposition temperature:	Not determined.
· Explosion limits: Lower: Not determined.	· Auto igniting:	Not determined.
Lower: Not determined.	· Danger of explosion:	Product does not present an explosion hazard.
	Lower:	
· Vapor pressure: Not determined.	· Vapor pressure:	Not determined.
 Density at 25 °C (77 °F): Relative density Vapour density Not determined. Not determined. 	Relative density	Not determined.

Safety Data Sheet acc. to OSHA HCS

Reviewed on 03/06/2014

Product Description: CNSL Resin

(Contd. of page 4)

• 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 (77 °F): ~ 42000 cps **Kinematic:** Not determined.

Organic solvents: 0.0 %

Solids content: ~99.8 %

• Other information No further relevant information available.

10 Stability and reactivity

- · Reactivity
- · 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:
- Primary irritant effect:
- on the skin: No irritant effect.
- · on the eye: No irritating effect.
- · Sensitization: Sensitization possible through skin contact.
- · Additional toxicological information:
- · Carcinogenic categories
- · IARC (International Agency for Research on Cancer)

Substance is not listed.

NTP (National Toxicology Program)

Substance is not 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.

(Contd. on page 6)



Safety Data Sheet acc. to OSHA HCS

Reviewed on 03/06/2014

Product Description: CNSL Resin

· Additional ecological information:

(Contd. of page 5)

· 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.

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	
· Class · Label	Non-hazardous for transport N/A
· ADR	
· Class	Non-hazardous for transport Miscellaneous dangerous substances and articles
· Label · ADN/R Class:	N/A Non-hazardous for transport
	(Contd. on page 7

Safety Data Sheet acc. to OSHA HCS

Reviewed on 03/06/2014

Product Description: CNSL Resin

(Contd. of page 6)

· IMDG, IATA

· Class Non-hazardous for transport

· Label 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 of

MARPOL73/78 and the IBC Code Not applicable.

· UN "Model Regulation": N/A

15 Regulatory information

- · Safety, health and environmental regulations/legislation specific for the substance or mixture
- · Sara
- · Section 355 (extremely hazardous substances):

Substance is not listed.

Section 313 (Specific toxic chemical listings):

Substance is not listed.

· TSCA (Toxic Substances Control Act):

Substance is listed.

- · Proposition 65
- · Chemicals known to cause cancer:

Substance is not listed.

· Chemicals known to cause reproductive toxicity for females:

Substance is not listed.

· Chemicals known to cause reproductive toxicity for males:

Substance is not listed.

· Chemicals known to cause developmental toxicity:

Substance is not listed.

- · Carcinogenic categories
- · EPA (Environmental Protection Agency)

Substance is not listed.

TLV (Threshold Limit Value established by ACGIH)

Substance is not listed.

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

Substance is not listed.

(Contd. on page 8)



Safety Data Sheet acc. to OSHA HCS

Reviewed on 03/06/2014

Product Description: CNSL Resin

(Contd. of page 7)

· OSHA-Ca (Occupational Safety & Health Administration)

Substance is not listed.

GHS label elements

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

· Hazard pictograms



Signal word Warning

· Hazard statements

H317 May cause an allergic skin reaction.

· Precautionary statements

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P103 Read label before use.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

Wear protective gloves/protective clothing/eye protection/face protection. P280

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

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

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 MSDS: Product safety department
- · Contact: Mr Eleazar dela Cruz
- · 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

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

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

USA