

## 1 Identification

- **Product identifier**
- **Product Description:** CNSL Resin
- **Product code:** Cardolite NC-342X
- **Application of the substance / the mixture**  
Epoxy binder  
Epoxy 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**



GHS02 Flame

Flam. Liq. 3 H226 Flammable liquid and vapour.



GHS08 Health hazard

Carc. 2 H351 Suspected of causing cancer.



GHS07

Eye Irrit. 2A H319 Causes serious eye irritation.

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

Flammable.

- **Information concerning particular hazards for human and environment:**

The product has to be labeled due to the calculation procedure of international guidelines.

- **Classification system:**

The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

- **Label elements**

- **GHS label elements**

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

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 · **Hazard pictograms**


GHS02 GHS07 GHS08

 · **Signal word** Warning

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

ethylbenzene

 · **Hazard statements**

H226 Flammable liquid and vapour.

H319 Causes serious eye irritation.

H351 Suspected of causing cancer.

 · **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.

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P241 Use explosion-proof electrical/ventilating/lighting/equipment.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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 = 1

Fire = 3

Reactivity = 0

 · **HMIS-ratings (scale 0 - 4)**


HEALTH 1 Health = 1

FIRE 3 Fire = 3

REACTIVITY 0 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.

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· <b>Dangerous components:</b>		
8030-30-6	Naphtha  Xn R65  Asp. Tox. 1, H304	10.0 - 18.0%
123-86-4	n-butyl acetate R10-66-67  Flam. Liq. 3, H226;  STOT SE 3, H336	~ 2.0%
71-36-3	butanol  Xn R22;  Xi R37/38-41 R10-67  Flam. Liq. 3, H226;  Eye Dam. 1, H318;  Acute Tox. 4, H302; Skin Irrit. 2, H315; STOT SE 3, H335-H336	~ 2.0%
100-41-4	ethylbenzene  Xn R20;  F R11  Flam. Liq. 2, H225;  Carc. 2, H351;  Acute Tox. 4, H332	< 1.0%

#### 4 First-aid measures

- **Description of first aid measures**
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Generally the product does not irritate the skin.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** If symptoms persist consult 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.
- **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**  
 Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:**  
 Dilute with plenty of water.  
 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.

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- **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

- **Precautions for safe handling**

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

- **Information about protection against explosions and fires:**

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

- **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.

- **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:**

**8030-30-6 Naphtha**

PEL Long-term value: 400 mg/m<sup>3</sup>, 100 ppm

REL Long-term value: 400 mg/m<sup>3</sup>, 100 ppm

**123-86-4 n-butyl acetate**

PEL Long-term value: 710 mg/m<sup>3</sup>, 150 ppm

REL Short-term value: 950 mg/m<sup>3</sup>, 200 ppm

Long-term value: 710 mg/m<sup>3</sup>, 150 ppm

TLV Short-term value: 950 mg/m<sup>3</sup>, 200 ppm

Long-term value: 713 mg/m<sup>3</sup>, 150 ppm

**71-36-3 butanol**

PEL Long-term value: 300 mg/m<sup>3</sup>, 100 ppm

REL Ceiling limit value: 150 mg/m<sup>3</sup>, 50 ppm  
Skin

TLV Long-term value: 61 mg/m<sup>3</sup>, 20 ppm

**100-41-4 ethylbenzene**

PEL Long-term value: 435 mg/m<sup>3</sup>, 100 ppm

REL Short-term value: 545 mg/m<sup>3</sup>, 125 ppm

Long-term value: 435 mg/m<sup>3</sup>, 100 ppm

TLV Short-term value: 543 mg/m<sup>3</sup>, 125 ppm

Long-term value: 87 mg/m<sup>3</sup>, 20 ppm

BEI

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**Product Description: CNSL Resin**

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- **Ingredients with biological limit values:**

- **100-41-4 ethylbenzene**

BEI	0.7 g/g creatinine
	Medium: urine
	Time: end of shift at end of workweek
	Parameter: Sum of mandelic acid and phenylglyoxylic acid (nonspecific, semi-quantitative)
-	
	Medium: end-exhaled air
	Time: not critical
	Parameter: Ethyl benzene (semi-quantitative)

- **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.  
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:**

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

## 9 Physical and chemical properties

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

- **General Information**

- **Appearance:**

**Form:**

Liquid

**Color:**

Dark brown

- **Odor:**

Aromatic

- **Odour threshold:**

Not determined.

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· pH-value at 25 °C (77 °F):	3
· <b>Change in condition</b>	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	Undetermined.
· Flash point:	36 °C (97 °F)
· Flammability (solid, gaseous):	Not applicable.
· Ignition temperature:	
Decomposition temperature:	Not determined.
· Auto igniting:	Product is not selfigniting.
· Danger of explosion:	Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
· <b>Explosion limits:</b>	
Lower:	Not determined.
Upper:	Not determined.
· Vapor pressure:	Not determined.
· Density at 25 °C (77 °F):	0.91068 g/cm <sup>3</sup> (7.6 lbs/gal)
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not determined.
· <b>Solubility in / Miscibility with Water:</b>	Fully miscible.
· Partition coefficient (n-octanol/water):	Not determined.
· <b>Viscosity:</b>	
Dynamic at 25 °C (77 °F):	14000 cps
Kinematic:	Not determined.
· Solvent content:	
Solids content:	80.0 %
· 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.

USA

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**Product Description: CNSL Resin**

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**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:** No sensitizing effects known.
- **Additional toxicological information:**
- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

100-41-4 ethylbenzene

2B

- **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.
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**  
Water hazard class 2 (Self-assessment): hazardous for water  
Do not allow product to reach ground water, water course or sewage system.  
Danger to drinking water if even small quantities leak into the ground.
- **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.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.




USA

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**14 Transport information**

<ul style="list-style-type: none"> <li>· UN-Number</li> <li>· DOT, ADR, IMDG, IATA</li> </ul>	UN1866
<ul style="list-style-type: none"> <li>· UN proper shipping name</li> <li>· DOT</li> <li>· ADR</li> <li>· IMDG, IATA</li> </ul>	Resin solution 1866 Resin solution RESIN SOLUTION
<ul style="list-style-type: none"> <li>· Transport hazard class(es)</li> <li>· DOT</li> </ul>	
	
<ul style="list-style-type: none"> <li>· Class</li> <li>· Label</li> </ul>	3 Flammable liquids 3
<ul style="list-style-type: none"> <li>· ADR</li> </ul>	
	
<ul style="list-style-type: none"> <li>· Class</li> <li>· Label</li> </ul>	3 Flammable liquids Miscellaneous dangerous substances and articles 3
<ul style="list-style-type: none"> <li>· IMDG, IATA</li> </ul>	
	
<ul style="list-style-type: none"> <li>· Class</li> <li>· Label</li> </ul>	3 Flammable liquids 3
<ul style="list-style-type: none"> <li>· Packing group</li> <li>· DOT, ADR, IMDG, IATA</li> </ul>	III
<ul style="list-style-type: none"> <li>· Environmental hazards:</li> <li>· Marine pollutant:</li> </ul>	No
<ul style="list-style-type: none"> <li>· Special precautions for user</li> <li>· Danger code (Kemler):</li> <li>· EMS Number:</li> </ul>	Warning: Flammable liquids 33 F-E,S-E
<ul style="list-style-type: none"> <li>· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</li> </ul>	Not applicable.
<ul style="list-style-type: none"> <li>· UN "Model Regulation":</li> </ul>	UN1866, Resin solution, 3, III

USA

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**Product Description: CNSL Resin**

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**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):**

71-36-3 butanol

100-41-4 ethylbenzene

- **TSCA (Toxic Substances Control Act):**

All ingredients are listed.

- **Proposition 65**

- **Chemicals known to cause cancer:**

100-41-4 ethylbenzene

- **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)**

71-36-3 butanol

D

100-41-4 ethylbenzene

D

- **TLV (Threshold Limit Value established by ACGIH)**

100-41-4 ethylbenzene

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**



GHS02 GHS07 GHS08

- **Signal word** Warning

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

ethylbenzene

- **Hazard statements**

H226 Flammable liquid and vapour.

H319 Causes serious eye irritation.

H351 Suspected of causing cancer.

- **Precautionary statements**

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

P102 Keep out of reach of children.

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**Product Description: CNSL Resin**

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- P103 Read label before use.
- P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
- P241 Use explosion-proof electrical/ventilating/lighting/equipment.
- P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- 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 MSDS:** Product safety department
- **Contact:** Mr Eleazar dela Cruz
- **Date of preparation / last revision** 04/14/2015 / -
- **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)

Flam. Liq. 2: Flammable liquids, Hazard Category 2

Flam. Liq. 3: Flammable liquids, Hazard Category 3

Acute Tox. 4: Acute toxicity, Hazard Category 4

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

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

Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A

Carc. 2: Carcinogenicity, Hazard Category 2

STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

Asp. Tox. 1: Aspiration hazard, Hazard Category 1