SAFETY DATA SHEET

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

Product identifier
Trade name or designation of the mixture
CARDOLITE NC-342X
Registration number
-
Synonyms
None.
Date of first issue
22-December-2010
Version number
01
Revision date
-
Supersedes date
-

Relevant identified uses of the substance or mixture and uses advised against
Identified uses
Resin.
Uses advised against
Not available.

Details of the supplier of the safety data sheet
CARDOLITE SPECIALTY CHEMICALS EUROPE N.V.
Wijmenstraat 21 K , Bus 2
9030 Mariakerke – Gent
Tel. : +32 9 265.88.20 (Belgium)
Fax. : +32 9 265.88.29 (Belgium)
regulatory@cardolite.com
msds@be.cardolite.com

Section 2: Hazards identification

Classification of the substance or mixture
The substance has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies.

Classification according to Directive 67/548/EEC or 1999/45/EC as amended
Classification
R10, R43
Hazard summary
Physical hazards
Flammable.
Health hazards
May cause sensitisation by skin contact. Occupational exposure to the substance or mixture may cause adverse health effects.
Environmental hazards
Not classified for hazards to the environment.
Specific hazards
May cause allergic skin disorders in sensitive individuals.
Main symptoms

Label elements

Label according to Directive 67/548/EEC or 1999/45/EC as amended

R-phrases
R10 Flammable.
R43 May cause sensitisation by skin contact.

S-phrases
S9 Keep container in a well-ventilated place.
S16 Keep away from sources of ignition - No smoking.
S23 Do not breathe vapour.
S24/25 Avoid contact with skin and eyes.
S36/37 Wear suitable protective clothing and gloves.
S60 This material and its container must be disposed of as hazardous waste.

Supplemental label information
Not applicable.

NC-342X
900171    Version No.: 01    Revision date: 22-December-2010    Print date: 22-December-2010
SDS UK
Section 3: Composition/information on ingredients

Mixture

General information

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>%</th>
<th>CAS-No. / EC No.</th>
<th>REACH Registration No.</th>
<th>INDEX No.</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rubber modified cashew liquid resin</td>
<td>80</td>
<td>Confidential</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Classification:</td>
<td>R43</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Naphtha</td>
<td>10-20</td>
<td>8030-30-6</td>
<td>-</td>
<td>649-262-00-3</td>
<td></td>
</tr>
<tr>
<td>Classification:</td>
<td>R10, Xn;R65, Xi;R38, R67, N;R51/53</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-Butanol</td>
<td>1-3</td>
<td>71-36-3</td>
<td>01-2119484639-38-0022</td>
<td>603-004-00-6</td>
<td>#</td>
</tr>
<tr>
<td>Classification:</td>
<td>R10, Xn;R22, Xi;R37/38-41, R67</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>n-Butyl acetate</td>
<td>2</td>
<td>123-86-4</td>
<td>204-658-1</td>
<td>607-025-00-1</td>
<td>#</td>
</tr>
<tr>
<td>Classification:</td>
<td>R10, R66-67</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethyl benzene</td>
<td>1</td>
<td>100-41-4</td>
<td>202-849-4</td>
<td>601-023-00-4</td>
<td>#</td>
</tr>
<tr>
<td>Classification:</td>
<td>F;R11, Xn;R20</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#: This substance has workplace exposure limit(s).

Composition comments

The full text for all R- and H-phrases is displayed in section 16. All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

Section 4: First aid measures

General information

Burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital.

Description of first aid measures

Inhalation

Move injured person into fresh air and keep person calm under observation. Get medical attention if any discomfort occurs.

Skin contact

Remove contaminated clothing immediately and wash skin with soap and water. In case of allergic reaction or other skin disorders: Seek medical attention and bring along these instructions.

Eye contact

Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention.

Ingestion

Rinse mouth thoroughly with water and give large amounts of milk or water to people not unconscious. Never give liquid to an unconscious person. Only induce vomiting at the instruction of medical personnel. Get medical attention if any discomfort occurs.

Most important symptoms and effects, both acute and delayed

Sensitisation. Severe eye irritation. Skin irritation. May irritate and cause malaise.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically. Symptoms may be delayed.

Section 5: Firefighting measures

General fire hazards

Dust may form explosive mixture with air.

Extinguishing media

Suitable extinguishing media

Foam. Carbon dioxide (CO2). Dry powder. Water fog.

Unsuitable extinguishing media

Do not use water jet as an extinguisher, as this will spread the fire.

Special hazards arising from the substance or mixture

During fire, gases hazardous to health may be formed.

Advice for firefighters

Special protective equipment for firefighters

Self-contained breathing apparatus and full protective clothing must be worn in case of fire. Selection of respiratory protection for fire fighting: follow the general fire precautions indicated in the workplace.
Special firefighting procedures
Move containers from fire area if you can do so without risk. Prevent runoff from fire control or dilution from entering streams, sewers or drinking water supply.

Section 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel
Stay upwind. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Avoid inhalation of vapours and spray mist and contact with skin and eyes. Wear suitable protective clothing. See Section 8 for personal protective equipment.

For emergency responders
Keep unnecessary personnel away. Use personal protection recommended in Section 8 of the SDS.

Environmental precautions
Avoid discharge into drains, water courses or onto the ground.

Methods and material for containment and cleaning up
ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Collect with absorbent, non-combustible material into suitable containers.

Reference to other sections
See Section 8 for personal protective equipment. For waste disposal, see section 13.

Section 7: Handling and storage

Precautions for safe handling
Provide adequate ventilation. Wear protective gloves and appropriate clothing to prevent skin contact. Handle and open container with care. Change contaminated clothing. Wash contaminated clothing before reuse. Observe good industrial hygiene practices. Avoid inhalation of vapours/spray and contact with skin and eyes. Do not smoke, use open fire or other sources of ignition. Ground container and transfer equipment to eliminate static electric sparks. Protect electric equipment against sparking in case of risk of explosion.

Conditions for safe storage, including any incompatibilities
Keep container tightly closed and in a well-ventilated place. Store in a cool, dry place. Store away from incompatible materials.

Specific end use(s)
Resin.

Section 8: Exposure controls/personal protection

Control parameters

UK. EH40 Workplace Exposure Limits (WELs)

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-Butanol (71-36-3)</td>
<td>STEL</td>
<td>154 mg/m³</td>
</tr>
<tr>
<td>Ethyl benzene (100-41-4)</td>
<td>STEL</td>
<td>552 mg/m³</td>
</tr>
<tr>
<td>n-Butyl acetate (123-86-4)</td>
<td>STEL</td>
<td>966 mg/m³</td>
</tr>
<tr>
<td>Ethyl benzene (100-41-4)</td>
<td>TWA</td>
<td>125 ppm</td>
</tr>
<tr>
<td>n-Butyl acetate (123-86-4)</td>
<td>TWA</td>
<td>150 ppm</td>
</tr>
<tr>
<td>Ethyl benzene (100-41-4)</td>
<td>TWA</td>
<td>441 mg/m³</td>
</tr>
</tbody>
</table>

Biological limit values
No biological exposure limits noted for the ingredient(s).

Recommended monitoring procedures
Follow standard monitoring procedures.

DNEL
Not available.

PNEC
Not available.

Exposure controls
Appropriate engineering controls
Use explosion-proof ventilation equipment to stay below exposure limits. Observe Occupational Exposure Limits and minimise the risk of inhalation of vapours.

Individual protection measures, such as personal protective equipment

General information
Use personal protective equipment as required. Personal protective equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.

Eye/face protection
Wear approved safety glasses or goggles.

Skin protection
- Hand protection
Wear protective gloves. Be aware that the liquid may penetrate the gloves. Frequent change is advisable. Suitable gloves can be recommended by the glove supplier.

- Other
Wear appropriate clothing to prevent any possibility of skin contact.

Respiratory protection
In case of inadequate ventilation: Use respiratory equipment with gas filter, type A2.

Thermal hazards
Wear appropriate thermal protective clothing, when necessary.
**Hygiene measures**
Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

**Environmental exposure controls**
Environmental manager must be informed of all major releases.

### Section 9: Physical and chemical properties
#### Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Dark brown colored liquid.</td>
</tr>
<tr>
<td>Physical state</td>
<td>Liquid.</td>
</tr>
<tr>
<td>Form</td>
<td>Liquid.</td>
</tr>
<tr>
<td>Colour</td>
<td>Dark brown.</td>
</tr>
<tr>
<td>Odour</td>
<td>Aromatic.</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>Not available.</td>
</tr>
<tr>
<td>pH</td>
<td>3.5 Approximate</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>Not available.</td>
</tr>
<tr>
<td>Boiling point, initial boiling point, and boiling range</td>
<td>&gt; 65.6 °C (&gt; 150 °F)</td>
</tr>
<tr>
<td>Flash point</td>
<td>36.1 °C (97 °F) Pensky-Martens Closed Cup</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not available.</td>
</tr>
<tr>
<td>Flammability limit - lower (%)</td>
<td>Not available.</td>
</tr>
<tr>
<td>Flammability limit - upper (%)</td>
<td>Not available.</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Explosive limit</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Vapour density</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Relative density</td>
<td>0.9 (H2O=1)</td>
</tr>
<tr>
<td>Solubility (water)</td>
<td>Slightly soluble.</td>
</tr>
<tr>
<td>Partition coefficient (n-octanol/water)</td>
<td>Not available.</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not available.</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not available.</td>
</tr>
<tr>
<td>Percent volatile</td>
<td>20 % (2gm/2h/105°C)</td>
</tr>
</tbody>
</table>

**Other information**
No relevant additional information available.

### Section 10: Stability and reactivity

<table>
<thead>
<tr>
<th>Property</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reactivity</td>
<td>Not available.</td>
</tr>
<tr>
<td>Chemical stability</td>
<td>Material is stable under normal conditions.</td>
</tr>
<tr>
<td>Possibility of hazardous reactions</td>
<td>Will not occur.</td>
</tr>
<tr>
<td>Conditions to avoid</td>
<td>Not available.</td>
</tr>
<tr>
<td>Incompatible materials</td>
<td>Not available.</td>
</tr>
<tr>
<td>Hazardous decomposition products</td>
<td>Carbon oxides.</td>
</tr>
</tbody>
</table>

### Section 11: Toxicological information

<table>
<thead>
<tr>
<th>Property</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>General information</td>
<td>Not available.</td>
</tr>
<tr>
<td>Information on likely routes of exposure</td>
<td>May cause discomfort if swallowed.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>May cause respiratory tract irritation.</td>
</tr>
<tr>
<td>Inhalation</td>
<td>Causes skin irritation. May cause redness and pain.</td>
</tr>
</tbody>
</table>
**Eye contact**
Causes serious eye irritation. Eye may become red, tear, and become painful.

**Symptoms**
Sensitisation. Causes skin and eye irritation May cause redness and pain.

**Information on toxicological effects**

**Acute toxicity**
May cause discomfort if swallowed.

<table>
<thead>
<tr>
<th>Components</th>
<th>Test results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl benzene (100-41-4)</td>
<td>Acute Dermal LD50 Rabbit: &gt; 5000 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Acute Oral LD50 Rat: 5.46 g/kg</td>
</tr>
<tr>
<td>n-Butyl acetate (123-86-4)</td>
<td>Acute Inhalation LC50 Rat: 2000 ppm 4 Hours</td>
</tr>
<tr>
<td></td>
<td>Acute Oral LD50 Rat: 10768 mg/kg</td>
</tr>
<tr>
<td>1-Butanol (71-36-3)</td>
<td>Acute Dermal LD50 Rabbit: 3400 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Acute Inhalation LC50 Rat: 8000 mg/l 4 Hours</td>
</tr>
<tr>
<td></td>
<td>Acute Oral LD50 Rat: 790 mg/kg</td>
</tr>
<tr>
<td>Naphtha (8030-30-6)</td>
<td>Acute Inhalation LC50 Rat: 61 mg/l 4 Hours</td>
</tr>
</tbody>
</table>

**Skin corrosion/irritation**
Causes skin irritation.

**Serious eye damage/eye irritation**
Cause severe eye irritation.

**Respiratory sensitization**
No data available.

**Skin sensitization**
May cause sensitization by skin contact.

**Germ cell mutagenicity**
No data available.

**Carcinogenicity**
No carcinogenicity data available for this product.

**IARC Monographs. Overall Evaluation of Carcinogenicity**

Ethyl benzene (CAS 100-41-4) 2B Possibly carcinogenic to humans.

**Reproductive toxicity**
No data available.

**Specific target organ toxicity - single exposure**
May cause drowsiness or dizziness. May cause respiratory irritation.

**Specific target organ toxicity - repeated exposure**
No data available.

**Aspiration hazard**
No data available.

**Mixture versus substance information**
Not available.

**Other information**
Not available.

**Section 12: Ecological information**

**Toxicity**

<table>
<thead>
<tr>
<th>Components</th>
<th>Test results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl benzene (100-41-4)</td>
<td>EC50 Water flea (Daphnia magna): 1.37 - 4.4 mg/l 48 hours</td>
</tr>
<tr>
<td></td>
<td>LC50 Rainbow trout, donaldson trout (Oncorhynchus mykiss): 4.2 mg/l 96 hours</td>
</tr>
<tr>
<td>n-Butyl acetate (123-86-4)</td>
<td>LC50 Fathead minnow (Pimephales promelas): 17 - 19 mg/l 96 hours</td>
</tr>
<tr>
<td>1-Butanol (71-36-3)</td>
<td>EC50 Water flea (Daphnia magna): 1897 - 2072 mg/l 48 hours</td>
</tr>
<tr>
<td></td>
<td>LC50 Bluegill (Lepomis macrochirus): 100 - 500 mg/l 96 hours</td>
</tr>
<tr>
<td>Naphtha (8030-30-6)</td>
<td>EC50 Water flea (Daphnia pulex): 2.7 - 5.1 mg/l 48 hours</td>
</tr>
<tr>
<td></td>
<td>LC50 Rainbow trout, donaldson trout (Oncorhynchus mykiss): 8.8 mg/l 96 hours</td>
</tr>
<tr>
<td></td>
<td>LC50 Rainbow trout, donaldson trout (Oncorhynchus mykiss): 8.8 mg/l 96 hours</td>
</tr>
</tbody>
</table>

**Persistence and degradability**
No data available.

**Bioaccumulative potential**
No data available.

**Mobility**
The product is insoluble in water.

**Environmental fate - Partition coefficient**
Not available.

**Mobility in soil**
Not available.

**Results of PBT and vPvB assessment**
Not available.
### Section 13: Disposal considerations

#### Waste treatment methods

<table>
<thead>
<tr>
<th>Residual waste</th>
<th>Dispose of in accordance with local regulations. Waste is suitable for incineration.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contaminated packaging</td>
<td>Since emptied containers may retain product residue, follow label warnings even after container is emptied.</td>
</tr>
</tbody>
</table>

**EU waste code**

- 08 04 09*

**Disposal methods/information**

- This material and/or its container must be disposed of as hazardous waste. Avoid discharge into water courses or onto the ground. Disposal recommendations are based on material as supplied.
- Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.

### Section 14: Transport information

**ADR**

- **UN number**: UN1866
- **UN proper shipping name**: RESIN SOLUTION, flammable
- **Transport hazard class(es)**: 3
- **Subsidiary class(es)**: -
- **Packing group**: III
- **Environmental hazards**: No
- **Tunnel restriction code**: D/E
- **Labels required**: 3
- **Special precautions for user**: Not available.

**RID**

- **UN number**: UN1866
- **UN proper shipping name**: RESIN SOLUTION, flammable
- **Transport hazard class(es)**: 3
- **Subsidiary class(es)**: -
- **Packing group**: III
- **Environmental hazards**: No
- **Labels required**: 3
- **Special precautions for user**: Not available.

**ADN**

- **UN number**: UN1866
- **UN proper shipping name**: Resin solution
- **Transport hazard class(es)**: 3
- **Subsidiary class(es)**: -
- **Packing group**: III
- **Environmental hazards**: No
- **Labels required**: 3
- **Special precautions for user**: Not available.

**IATA**

- **UN number**: UN1866
- **UN proper shipping name**: Resin solution flammable
- **Transport hazard class(es)**: 3
- **Subsidiary class(es)**: -
- **Packing group**: III
- **Environmental hazards**: No
- **ERG Code**: 3L
- **Special precautions for user**: Not available.

**IMDG**

- **UN number**: UN1866
- **UN proper shipping name**: RESIN SOLUTION flammable
- **Transport hazard class(es)**: 3
- **Subsidiary class(es)**: -
- **Packing group**: III
- **Marine pollutant**: No
- **EmS No.**: F-E, S-E*
- **Special precautions for user**: Not available.
- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**: No information available.
Section 15: Regulatory information

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

EU Regulations

- Regulation (EC) No. 2037/2000 on substances that deplete the ozone layer, Annex I
  Not listed.
- Regulation (EC) No. 2037/2000 on substances that deplete the ozone layer, Annex II
  Not listed.
  Not listed.
- Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 1
  Not listed.
- Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 2
  Not listed.
- Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 3
  Not listed.
- Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex V
  Not listed.
- Directive 96/61/EC concerning integrated pollution prevention and control (IPPC): Article 15, European Pollution Emission Registery (EPER)
  Ethyl benzene (CAS 100-41-4)
- Regulation (EC) No. 1907/2006, REACH Article 59(1). Candidate List
  Not listed.

Other regulations

- Young people under 18 years old are not allowed to work with this product according to EU Directive 94/33/EC on the protection of young people at work.
- This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006.

National regulations

- Not available.

Chemical safety assessment

- No Chemical Safety Assessment has been carried out.

Section 16: Other information

List of abbreviations

- DNEL: Derived No-Effect Level.
- PNEC: Predicted No-Effect Concentration.
- PBT: Persistent, bioaccumulative and toxic.
- vPvB: Very Persistent and very Bioaccumulative.

References

- Not available.

Information on evaluation method leading to the classification of mixture

- The mixture is classified based on test data for physical hazards. The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available. For details, refer to Sections 9, 11 and 12.

Wording of the R-phrases in sections 2 and 3

- R10 Flammable.
- R11 Highly flammable.
- R20 Harmful by inhalation.
- R22 Harmful if swallowed.
- R37/38 Irritating to respiratory system and skin.
- R38 Irritating to skin.
- R41 Risk of serious damage to eyes.
- R43 May cause sensitisation by skin contact.
- R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- R65 Harmful: may cause lung damage if swallowed.
- R66 Repeated exposure may cause skin dryness or cracking.
- R67 Vapours may cause drowsiness and dizziness.

Training information

- Not available.

Disclaimer

- To the best of our knowledge, the information contained herein is accurate. However no warranty, guarantee or representation is made as to its accuracy, reliability or completeness. Users should consider these data only as a supplement to other information gathered by them and must make independent determinations of suitability to assure proper use, disposal, and safety of these materials.

Issue date

- 22-December-2010

Revision date

- 22-December-2010

Print date

- 22-December-2010