1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier
Product Identity 1000-I Marking Ink, Clear, Fluorescent
Alternate Names 1000-I Marking Fluid, Clear, Fluorescent

1.2. Relevant identified uses of the substance or mixture and uses advised against
Intended use See Technical Data Sheet.
Application Method See Technical Data Sheet.

1.3. Details of the supplier of the safety data sheet
Company Name Carco, Inc
10333 Shoemaker
P.O. Box 13859
Detroit, Michigan, USA 48213

Emergency
24 hour Emergency Telephone No. ChemTel 1-800-255-3924 (MIS0001475)
International +01-813-248-0585

Customer Service: Carco, Inc
Phone +1 (313) 925-9000
Fax +1 (313) 925-9602
Email: sales@carcousa.net

2. Hazard identification of the product

2.1. Classification of the substance or mixture
Flam. Liq. 2:H225 Highly Flammable liquid and vapor.
Eye Irrit. 2:H319 Causes serious eye irritation.
STOT SE 3:H336 May cause drowsiness or dizziness.

2.2. Label elements
Using the Toxicity Data listed in section 11 and 12 the product is labeled as follows.

Danger
H225 Highly flammable liquid and vapor.
H319 Causes serious eye irritation.
[Prevention]:
P210 Keep away from heat / sparks / open flames / hot surfaces - No smoking.
P241 Use explosion-proof electrical / ventilating / light / equipment.
P264 Wash thoroughly after handling.
P280 Wear protective gloves / eye protection / face protection.

[Response]:
P303+361+353 IF ON SKIN (or hair): Remove / Take off immediately all contaminated clothing. Rinse skin with water / shower.
P305+351+338 IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.
P337+313 If eye irritation persists: Get medical advice / attention.
P370+378 In case of fire: Use extinguishing media listed in section 5 of SDS for extinction.

[Storage]:
P403+233 Store in a well ventilated place. Keep container tightly closed.

[Disposal]:
P501 Dispose of contents / container in accordance with local / national regulations.

<table>
<thead>
<tr>
<th>3. Composition/information on ingredients</th>
</tr>
</thead>
</table>

This product contains the following substances that present a hazard within the meaning of the relevant State and Federal Hazardous Substances regulations.

<table>
<thead>
<tr>
<th>Ingredient/Chemical Designations</th>
<th>Weight %</th>
<th>GHS Classification</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isopropyl Alcohol</td>
<td>75 - 100</td>
<td>Flam. Liq. 2;H225</td>
<td></td>
</tr>
<tr>
<td>CAS Number: 0000067-63-0</td>
<td></td>
<td>Eye Irrit. 2;H319</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>STOT SE 3;H336</td>
<td>[1][2]</td>
</tr>
<tr>
<td>1-Methoxy-2-propanol</td>
<td>1.0 - 10</td>
<td>Flam. Liq. 3;H226</td>
<td></td>
</tr>
<tr>
<td>CAS Number: 0000107-98-2</td>
<td></td>
<td>STOT SE 3;H336</td>
<td>[1][2]</td>
</tr>
<tr>
<td>Rosin, Fumaric, Maleic Adduct</td>
<td>1.0 - 10</td>
<td></td>
<td>[1]</td>
</tr>
<tr>
<td>CAS Number: 0068201-59-2</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

[1] Substance classified with a health or environmental hazard.
*The full texts of the phrases are shown in Section 16.

4. First aid measures

4.1. Description of first aid measures

General
Move victim to fresh air.
Call 911 or emergency medical service if deemed necessary.
Give artificial respiration if victim is not breathing.
Administer oxygen if breathing is difficult.
Remove and isolate contaminated clothing and shoes.
In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes. Wash skin with soap and water. In case of burns, immediately cool affected skin for as long as possible with cold water. Do not remove clothing if adhering to skin. Keep victim warm and quiet. Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

**Inhalation**
Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give artificial respiration. If unconscious place in the recovery position and obtain immediate medical attention. Give nothing by mouth.

**Eyes**
Make sure to remove any contact lenses from the eyes before rinsing. Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

**Skin**
Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognized skin cleanser.

**Ingestion**
DO NOT INDUCE VOMITING! If swallowed, vomiting may occur spontaneously. If vomiting occurs, keep head below hips to prevent aspiration into lungs. Rinse mouth thoroughly. Get medical attention.

4.2. Most important symptoms and effects, both acute and delayed

**Overview**
Effects of contact or inhalation may be delayed. Exposure to solvent vapor concentrations from the component solvents in excess of the stated occupational exposure limits may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms include headache, nausea, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness.

Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in dryness, irritation and possible non-allergic contact dermatitis. Solvents may also be absorbed through the skin. Splashes of liquid in the eyes may cause irritation and soreness with possible reversible damage. See section 2 for further details.

**Inhalation** May cause drowsiness or dizziness.

**Eyes**
Causes serious eye irritation.

### 5. Fire-fighting measures

5.1. Extinguishing media
Use foam, extinguishing powder, dry chemicals, or carbon dioxide. Water may be ineffective. Water may be used to keep fire exposed containers cool.

5.2. Special hazards arising from the substance or mixture
Hazardous decomposition: No hazardous decomposition data available.
Keep away from heat / sparks / open flames / hot surfaces - No smoking.
Use explosion-proof electrical / ventilating / light / equipment.
5.3. Advice for fire-fighters

Wear positive pressure self-contained breathing apparatus (SCBA).
Structural firefighters' protective clothing will only provide limited protection.
HIGHLY FLAMMABLE: Will be easily ignited by heat, sparks or flames.
Vapors may form explosive mixtures with air.
Vapors may travel to source of ignition and flash back.
Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks).
Vapor explosion hazard indoors, outdoors or in sewers. Runoff to sewer may create fire or explosion hazard.
Containers may explode when heated.
Many liquids are lighter than water.
May cause toxic effects if inhaled or absorbed through skin.
Inhalation or contact with material may irritate or burn skin and eyes.
Fire will produce irritating, corrosive and/or toxic gases.
Vapors may cause dizziness or suffocation.
Runoff from fire control or dilution water may cause pollution.

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6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Water spray may reduce vapor; but may not prevent ignition in closed spaces.

6.2. Environmental precautions

Do not allow spills to enter drains or watercourses.
Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

6.3. Methods and material for containment and cleaning up

Large Spill: As an immediate precautionary measure, isolate spill or leak area for at least 50 meters (150 feet) in all directions.
Keep unauthorized personnel away.
Stay upwind.
Keep out of low areas.
Ventilate closed spaces before entering.

Small Spill: Use a non-combustible material like vermiculite, sand or earth to soak up product and place in a container for later disposal.

7. Handling and storage

7.1. Precautions for safe handling

Keep in the original container.
Store in accordance with the National Fire Protection Association's publication NFPA 30, Flammable and Combustible Liquids Code. 29 CFR 1910.106 applies to the handling, storage, and use of flammable and combustible liquids.
See section 2 for further details. - [Prevention]:

7.2. Conditions for safe storage, including any incompatibilities

Handle containers carefully to prevent damage and spillage.
Store in a cool dry area, away from heat, sparks and open flame. Keep containers sealed when not in use. Store out of direct sunlight.
Store in a cool dry place.
Incompatible materials: Store away from oxidizers and acids.
See section 2 for further details.

7.3. Specific end use(s)
No data available.

8. Exposure controls and personal protection

8.1. Control parameters

<table>
<thead>
<tr>
<th>CAS No.</th>
<th>Ingredient</th>
<th>Source</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>000067-63-0</td>
<td>Isopropyl Alcohol</td>
<td>OSHA</td>
<td>TWA 400 ppm (980 mg/m3) STEL 500 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACGIH</td>
<td>TWA: 200 ppm STEL: 400 ppm Revised 2003,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NIOSH</td>
<td>TWA 400 ppm (980 mg/m3) ST 500 ppm (1225 mg/m3)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Supplier</td>
<td>No Established Limit</td>
</tr>
<tr>
<td>000107-98-2</td>
<td>1-Methoxy-2-propanol</td>
<td>OSHA</td>
<td>No Established Limit</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACGIH</td>
<td>TWA: 50 ppm STEL: 75 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NIOSH</td>
<td>TWA 100 ppm (360 mg/m3) ST 150 ppm (540 mg/m3)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Supplier</td>
<td>No Established Limit</td>
</tr>
<tr>
<td>0068201-59-2</td>
<td>Rosin, Fumaric, Maleic Adduct</td>
<td>OSHA</td>
<td>No Established Limit</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACGIH</td>
<td>No Established Limit</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NIOSH</td>
<td>No Established Limit</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Supplier</td>
<td>No Established Limit</td>
</tr>
</tbody>
</table>

Carcinogen Data

<table>
<thead>
<tr>
<th>CAS No.</th>
<th>Ingredient</th>
<th>Source</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>000067-63-0</td>
<td>Isopropyl Alcohol</td>
<td>OSHA</td>
<td>Select Carcinogen: No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NTP</td>
<td>Known: No; Suspected: No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IARC</td>
<td>Group 1: No; Group 2a: No; Group 2b: No; Group 3: Yes; Group 4: No;</td>
</tr>
<tr>
<td>000107-98-2</td>
<td>1-Methoxy-2-propanol</td>
<td>OSHA</td>
<td>Select Carcinogen: No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NTP</td>
<td>Known: No; Suspected: No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IARC</td>
<td>Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;</td>
</tr>
<tr>
<td>0068201-59-2</td>
<td>Rosin, Fumaric, Maleic Adduct</td>
<td>OSHA</td>
<td>Select Carcinogen: No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NTP</td>
<td>Known: No; Suspected: No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IARC</td>
<td>Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;</td>
</tr>
</tbody>
</table>
8.2. Exposure controls

**Respiratory**
Atmospheric levels should be maintained below the exposure guideline. When respiratory protection is required for certain operations, use an approved air-purifying respirator. The following should be effective types of air purifying respirators: Organic vapor cartridge.

**Eyes**
Wear safety eyewear, e.g. safety spectacles, goggles or visors to protect against the splash of liquids.

**Skin**
Overalls which cover the body, arms and legs should be worn. Skin should not be exposed. All parts of the body should be washed after contact. Use gloves chemically resistant to this material when prolonged or frequently repeated contact could occur. Examples of preferred glove barrier materials include: Butyl rubber. Polyethylene/ethyl vinyl alcohol laminate ("PE/EVAL"). Examples of acceptable glove barrier materials include: Natural rubber ("latex"). Neoprene. Nitrile/butadiene rubber ("nitrile" or "NBR"). Polyvinyl chloride ("PVC" or "vinyl"). Viton

**Engineering Controls**
Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and any vapor below occupational exposure limits suitable respiratory protection must be worn.

**Other Work Practices**
Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

See section 2 for further details. - [Prevention]:

### 9. Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Colored Liquid</td>
</tr>
<tr>
<td>Odor</td>
<td>Sweet alcohol</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>Not Measured</td>
</tr>
<tr>
<td>pH</td>
<td>Not Measured</td>
</tr>
<tr>
<td>Melting point / freezing point</td>
<td>Not Measured</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>82°C 160°F</td>
</tr>
<tr>
<td>Flash Point</td>
<td>10°C-15°C 50°F-60°F</td>
</tr>
<tr>
<td>Evaporation rate (Ether = 1)</td>
<td>1.6(BU.AC=1)</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Upper/lower flammability or explosive limits</td>
<td><strong>Lower Explosive Limit:</strong> 3</td>
</tr>
<tr>
<td></td>
<td><strong>Upper Explosive Limit:</strong> 19</td>
</tr>
<tr>
<td>Vapor pressure (Pa)</td>
<td>4.16 kPa@20°C</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>&gt;2(air=1)</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>0.810g/ml@20°C</td>
</tr>
<tr>
<td>Solubility in Water</td>
<td>95%</td>
</tr>
<tr>
<td>Partition coefficient n-octanol/water (Log Kow)</td>
<td>Not Measured</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>Not Measured</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not Measured</td>
</tr>
<tr>
<td>Viscosity (cSt)</td>
<td>Not Measured</td>
</tr>
<tr>
<td>VOC %</td>
<td>85-95Wt%</td>
</tr>
</tbody>
</table>
9.2. Other information
No other relevant information.

10. Stability and reactivity

10.1. Reactivity
Hazardous Polymerization will not occur.

10.2. Chemical stability
Stable under normal circumstances.

10.3. Possibility of hazardous reactions
No data available.

10.4. Conditions to avoid
High temperatures, fires, and incompatibles.

10.5. Incompatible materials
Store away from oxidizers and acids.

10.6. Hazardous decomposition products
No hazardous decomposition data available.

11. Toxicological information

Acute toxicity

Exposure to solvent vapor concentrations from the component solvents in excess of the stated occupational exposure limits may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms include headache, nausea, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness.

Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in dryness, irritation and possible non-allergic contact dermatitis. Solvents may also be absorbed through the skin. Splashes of liquid in the eyes may cause irritation and soreness with possible reversible damage.

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Oral LD50, mg/kg</th>
<th>Skin LD50, mg/kg</th>
<th>Inhalation Vapor LD50, mg/L/4hr</th>
<th>Inhalation Dust/Mist LD50, mg/L/4hr</th>
<th>Inhalation Gas LD50, ppm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isopropyl Alcohol - (67-63-0)</td>
<td>4,710.00, Rat - Category: 5</td>
<td>12,800.00, Rat - Category: NA</td>
<td>72.60, Rat - Category: NA</td>
<td>No data available</td>
<td>No data available</td>
</tr>
<tr>
<td>1-Methoxy-2-propanol - (107-98-2)</td>
<td>5,000.00, Rat - Category: 5</td>
<td>13,000.00, Rabbit - Category: NA</td>
<td>No data available</td>
<td>No data available</td>
<td>No data available</td>
</tr>
<tr>
<td>Rosin, Fumaric, Maleic Adduct - (68201-59-2)</td>
<td>No data available</td>
<td>No data available</td>
<td>No data available</td>
<td>No data available</td>
<td>No data available</td>
</tr>
</tbody>
</table>

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).
### 12. Ecological information

#### 12.1. Toxicity
No additional information provided for this product. See Section 3 for chemical specific data.

#### Aquatic Ecotoxicity

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>96 hr LC50 fish, mg/l</th>
<th>48 hr EC50 crustacea, mg/l</th>
<th>ErC50 algae, mg/l</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isopropyl Alcohol - (67-63-0)</td>
<td>1,400.00, Lepomis macrochirus</td>
<td>100.00, Daphnia magna</td>
<td>100.00 (72 hr), Scenedesmus subspicatus</td>
</tr>
<tr>
<td>1-Methoxy-2-propanol - (107-98-2)</td>
<td>1,000.00, Oncorhynchus mykiss</td>
<td>500.00, Daphnia magna</td>
<td>1,000.00 (96 hr), Selenastrum capricornutum</td>
</tr>
<tr>
<td>Rosin, Fumaric, Maleic Adduct - (68201-59-2)</td>
<td>Not Available</td>
<td>Not Available</td>
<td>Not Available</td>
</tr>
</tbody>
</table>

#### 12.2. Persistence and degradability
There is no data available on the preparation itself.

#### 12.3. Bioaccumulative potential
Not Measured

#### 12.4. Mobility in soil
No data available.

#### 12.5. Results of PBT and vPvB assessment
This product contains no PBT/vPvB chemicals.
12.6. Other adverse effects
No data available.

13. Disposal considerations

13.1. Waste treatment methods
Do not allow into drains or water courses. Wastes and emptied containers should be disposed of in accordance with regulations made under the Control of Pollution Act and the Environmental Protection Act.

Using information provided in this data sheet advice should be obtained from the Waste Regulation Authority, whether the special waste regulations apply.

14. Transport information

14.1. UN number
DOT (Domestic Surface Transportation) UN1210
IMO / IMDG (Ocean Transportation) UN1210
ICAO/IATA UN1210

14.2. UN proper shipping name
Printing ink

14.3. Transport hazard class(es)
DOT Hazard Class: 3
DOT Label: 3
IMDG: 3
Sub Class: Not Applicable
EmS: F-E, S-D

14.4. Packing group
II
II
II

14.5. Environmental hazards
IMDG Marine Pollutant: No

14.6. Special precautions for user
No further information

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code
Not Applicable

15. Regulatory information

Regulatory Overview The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented. All ingredients of this product are listed on the TSCA (Toxic Substance Control Act) Inventory or are not required to be listed on the TSCA Inventory.

NFPA Rankings:
WHMIS Classification  B2  D2B

US EPA Tier II Hazards

Fire: Yes
Sudden Release of Pressure: No
Reactive: No
Immediate (Acute): Yes
Delayed (Chronic): No

EPCRA 311/312 Chemicals and RQs:
(No Product Ingredients Listed)

EPCRA 302 Extremely Hazardous :
(No Product Ingredients Listed)

EPCRA 313 Toxic Chemicals:
Isopropyl Alcohol

Proposition 65 - Carcinogens (>0.0%):
(No Product Ingredients Listed)

Proposition 65 - Developmental Toxins (>0.0%):
(No Product Ingredients Listed)

Proposition 65 - Female Repro Toxins (>0.0%):
(No Product Ingredients Listed)

Proposition 65 - Male Repro Toxins (>0.0%):
(No Product Ingredients Listed)

N.J. RTK Substances (>1%):
1-Methoxy-2-propanol
Isopropyl Alcohol

Penn RTK Substances (>1%):
1-Methoxy-2-propanol
Isopropyl Alcohol
16. Other information

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

The full text of the phrases appearing in section 3 is:

H225 Highly flammable liquid and vapor.
H226 Flammable liquid and vapor.
H319 Causes serious eye irritation.
H336 May cause drowsiness and dizziness.

This is the first version in the GHS SDS format. Listings of changes from previous versions in other formats are not applicable.

This product is RoHS and REACH compliant. It does not contain any of the RoHS listed substances. It does not contain any chemical from the candidate list of Substances of Very High Concern (SVHC), Annex XIV, or Annex XVII of Reach.

This information is based on our present knowledge. However, it does not constitute a guarantee for any specific product properties. Carco urges the recipient of this SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown above. The use of this product is beyond the control Carco or it’s distributor, therefore, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/user's responsibility to ensure that his activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of the manufacturer, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product.

End of Document