1. Identification of the Substance/Preparation and of the Company/Undertaking

Product identifier
Description Reliable Magenta

Other means of identification
Part Number 053013
Synonyms No information available

Recommended use of the chemical and restrictions on use
Recommended Use Ink.
Uses advised against No information available

Details of the supplier of the safety data sheet
Company Name Kao Collins Inc.
1201 Edison Drive
Cincinnati, OH 45216
PH: 513-948-9000
Info@kaocollins.com
Emergency telephone number Chemtrec 1-800-424-9300
Emergency Telephone International Chemtrec: +1 703-527-3887

2. Hazards Identification

Classification
OSHA Regulatory Status
This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

<table>
<thead>
<tr>
<th>Category 1</th>
<th>Category 1B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin sensitization</td>
<td></td>
</tr>
<tr>
<td>Reproductive toxicity</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Label Elements</th>
<th>EMERGENCY OVERVIEW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Danger</td>
<td>hazard statements</td>
</tr>
<tr>
<td>May cause an allergic skin reaction</td>
<td></td>
</tr>
<tr>
<td>May damage fertility or the unborn child</td>
<td></td>
</tr>
</tbody>
</table>

| Appearance | Magenta | Physical state | liquid | Odor | Acrylic |

Precautionary Statements - Prevention
Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Use personal protective equipment as required
Precautionary Statements - Response
IF exposed or concerned: Get medical advice/attention
IF ON SKIN: Wash with plenty of soap and water
If skin irritation or rash occurs: Get medical advice/attention
Wash contaminated clothing before reuse

Precautionary Statements - Storage
Store locked up

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Other Information
• Causes mild skin irritation
• Harmful to aquatic life

Unknown acute toxicity 5.5 % of the mixture consists of ingredient(s) of unknown toxicity

3. Composition/information on Ingredients

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS No</th>
<th>Weight-%</th>
<th>Trade secret</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol</td>
<td>Proprietary</td>
<td>1 - 5</td>
<td>*</td>
</tr>
<tr>
<td>Lactam</td>
<td>Proprietary</td>
<td>0.1 - &lt;2</td>
<td>*</td>
</tr>
<tr>
<td>Ethyl alcohol</td>
<td>64-17-5</td>
<td>0.1 - &lt;1</td>
<td>*</td>
</tr>
<tr>
<td>1,2-Benzisothiazolin-3-one</td>
<td>2634-33-5</td>
<td>0.1 - &lt;1</td>
<td>*</td>
</tr>
</tbody>
</table>

*The exact percentage (concentration) of composition has been withheld as a trade secret.

NOTE
Remaining components are either not hazardous or below threshold limits.

4. First aid measures

Description of first aid measures

General advice
Immediate medical attention is not required. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Eye contact
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If symptoms persist, call a physician.

Skin Contact
Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician. Wash off immediately with soap and plenty of water.

Inhalation
Remove to fresh air. If symptoms persist, call a physician.

Ingestion
Immediate medical attention is not required. Rinse mouth. Drink plenty of water. Do NOT induce vomiting.

Self-protection of the first aider
Use personal protective equipment as required.

Most important symptoms and effects, both acute and delayed

Symptoms
Hives.

Indication of any immediate medical attention and special treatment needed
Notes to Physician
May cause sensitization of susceptible persons. Use of epinephrine may be indicated.

5. Fire-fighting measures

Suitable extinguishing media
Use Carbon dioxide (CO2) Dry chemical Alcohol resistant foam

Unsuitable extinguishing media  None.

Specific hazards arising from the chemical
Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes. Thermal decomposition can lead to release of irritating and toxic gases and vapors. In the event of fire and/or explosion do not breathe fumes. May cause sensitization in susceptible persons.

Explosion data
Sensitivity to Mechanical Impact  No information available.
Sensitivity to Static Discharge  None.

Protective equipment and precautions for firefighters
Wear self-contained breathing apparatus and protective suit.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions
Avoid contact with skin and eyes. Use personal protective equipment as required.

Other Information
Other Information.

Environmental precautions
Environmental precautions
Prevent entry into waterways, sewers, basements or confined areas. Do not flush into surface water or sanitary sewer system. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

Methods and material for containment and cleaning up

Methods for containment
Prevent further leakage or spillage if safe to do so.

Methods for cleaning up
Pick up and transfer to properly labeled containers. After cleaning, flush away traces with water. Prevent product from entering drains. Soak up with inert absorbent material.

7. Handling and Storage

Precautions for safe handling
Handling
Ensure adequate ventilation. Use personal protective equipment as required.

Conditions for safe storage, including any incompatibilities
Storage
Keep container tightly closed. Keep out of the reach of children. Keep containers tightly closed in a cool, well-ventilated place.

Incompatible materials

8. Exposure Controls/Personal Protection

Control parameters
Exposure guidelines
Appropriate engineering controls

Engineering Measures

Ensure adequate ventilation, especially in confined areas. Showers. Eyewash stations.

Individual protection measures, such as personal protective equipment

Eye/Face Protection

Tight sealing safety goggles.

Skin and body protection

Wear protective gloves and protective clothing. For operations where prolonged or repeated skin contact may occur, impervious gloves should be worn.

Respiratory protection

None under normal use conditions.

Hygiene Measures

When using do not eat or drink. Wash contaminated clothing before reuse.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

| Physical state | liquid |
| Appearance | Magenta |
| Color | No information available |
| pH | 8 - 10 |
| Melting point / freezing point | No information available |
| Boiling point / boiling range | > 100 °C |
| Flash point | No information available |
| Evaporation rate | No information available |
| Flammability (solid, gas) | No information available |
| Flammability Limit in Air | No information available |
| Upper flammability limit: | No information available |
| Lower flammability limit: | No information available |
| Vapor pressure | No information available |
| Vapor density | No information available |
| Specific gravity | 1.0-1.2 |
| Water solubility | No information available |
| Solubility(ies) | No information available |
| Partition coefficient | No information available |
| Autoignition temperature | >200 °C |
| Decomposition temperature | No information available |
| Kinematic viscosity | No information available |
| Dynamic viscosity | No information available |
| Explosive properties | No information available |
| Oxidizing properties | No information available |

Other Information

Softening point | No information available |
Molecular weight | No information available |
VOC content | No information available |
Liquid Density | No information available |
Bulk density | No information available |

10. Stability and Reactivity

Reactivity

no data available

Chemical stability

Stable under normal conditions.
Possibility of Hazardous Reactions
None under normal processing.

Hazardous polymerization
Hazardous polymerization does not occur.

Conditions to avoid
Heat, flames and sparks.

Incompatible materials

Hazardous Decomposition Products
Carbon oxides.

11. Toxicological Information

Information on likely routes of exposure

Product Information
The product has not been tested.

Inhalation
May cause irritation of respiratory tract. Avoid breathing vapors or mists.

Eye contact
Avoid contact with eyes. May cause irritation.

IF ON SKIN
Avoid contact with skin. May cause irritation. May cause sensitization by skin contact.

Ingestion
Do NOT taste or swallow. May be harmful if swallowed.

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
<th>Inhalation LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lactam</td>
<td>= 1350 mg/kg ( Rat )</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Ethyl alcohol 64-17-5</td>
<td>= 7060 mg/kg ( Rat )</td>
<td>-</td>
<td>= 124.7 mg/L ( Rat ) 4 h</td>
</tr>
<tr>
<td>1,2-Benzoisothiazolin-3-one 2634-33-5</td>
<td>= 1020 mg/kg ( Rat )</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Information on toxicological effects

Symptoms
No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation
May cause irritation to the skin and respiratory system. May cause eye irritation.

Sensitization
May cause an allergic skin reaction. May cause sensitization by skin contact.

Mutagenic effects
No information available.

Carcinogenicity
The table below indicates whether each agency has listed any ingredient as a carcinogen. This product contains Ethanol which is classified as a possible carcinogen when ingested in the form of an alcoholic beverage. This is irrelevant as this product is used for ink jet ink applications not an alcoholic beverage.

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>ACGIH</th>
<th>IARC</th>
<th>NTP</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl alcohol 64-17-5</td>
<td>A3</td>
<td>Group 1</td>
<td>Known</td>
<td>X</td>
</tr>
</tbody>
</table>

Reproductive toxicity
May impair fertility. Possible risk of impaired fertility. May cause harm to the unborn child.

STOT - single exposure
No information available.

STOT - repeated exposure
No information available.

Chronic toxicity
Repeated contact may cause allergic reactions in very susceptible persons. Avoid repeated exposure.

Target organ effects
Eyes, kidney, blood, Skin.

Aspiration hazard
No information available.

Numerical measures of toxicity - Product Information
Unknown acute toxicity  5.5 % of the mixture consists of ingredient(s) of unknown toxicity
The following values are calculated based on chapter 3.1 of the GHS document

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Oral (mg/kg)</th>
<th>Dermal (mg/kg)</th>
<th>Inhalation-dust/mist (mg/l)</th>
<th>Inhalation-vapor (mg/l)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATEmix</td>
<td>49941</td>
<td>73964</td>
<td>26</td>
<td>892.9</td>
</tr>
</tbody>
</table>

**12. Ecological Information**

**Ecotoxicity**

Harmful to aquatic life

0 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Algae/aquatic plants</th>
<th>Toxicity to Fish</th>
<th>Crustacea</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lactam</td>
<td>-</td>
<td>464 - 999: 96 h Danio rerio mg/L LC50 static</td>
<td>-</td>
</tr>
<tr>
<td>Ethyl alcohol</td>
<td>-</td>
<td>13400 - 15100: 96 h Pimephales promelas mg/L LC50 flow-through 12.0 - 16.0: 96 h Oncorhynchus mykiss mL/L LC50 static 100: 96 h Pimephales promelas mg/L LC50 static</td>
<td>-</td>
</tr>
</tbody>
</table>

**Persistence and degradability**

No information available.

**Bioaccumulation/Accumulation**

No information available.

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Partition coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl alcohol</td>
<td>-0.32</td>
</tr>
<tr>
<td>1,2-Benzisothiazolin-3-one</td>
<td>1.3</td>
</tr>
</tbody>
</table>

**Other adverse effects**

No information available

**13. Disposal Considerations**

**Waste treatment methods**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

**Contaminated packaging**

Do not re-use empty containers.

This product contains one or more substances that are listed with the State of California as a hazardous waste.

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>California Hazardous Waste Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl alcohol</td>
<td>Toxic; Ignitable</td>
</tr>
</tbody>
</table>

**14. Transport Information**

**DOT**

Not regulated

**TDG**

Not regulated
15. Regulatory Information

### International Inventories

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>TSCA</th>
<th>DSL/NDSL</th>
<th>EINECS/ELINCS</th>
<th>ENCS</th>
<th>IECSC</th>
<th>KECL</th>
<th>PICCS</th>
<th>AICS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Lactam</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>-</td>
<td>X</td>
<td>-</td>
</tr>
<tr>
<td>Ethyl alcohol</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>1,2-Benzisothiazolin-3-one</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

**Legend**

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

### U.S. Federal Regulations

**SARA 311**
Section 311 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product is not a chemical which is subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

**SARA 311/312 Hazard Categories**

- **Acute health hazard**: Yes
- **Chronic Health Hazard**: Yes
- **Fire hazard**: No
- **Sudden release of pressure hazard**: No
- **Reactive Hazard**: No

**Clean Water Act**
This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

**CERCLA**
This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

### U.S. State Regulations
California Proposition 65
This product contains the following Proposition 65 chemicals:

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>California Prop 65</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl alcohol - 64-17-5</td>
<td>Carcinogen</td>
</tr>
<tr>
<td></td>
<td>Development</td>
</tr>
</tbody>
</table>

U.S. State Right-to-Know Regulations

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>New Jersey</th>
<th>Massachusetts</th>
<th>Pennsylvania</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl alcohol</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>64-17-5</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

U.S. EPA Label Information
EPA Pesticide registration number   Not applicable

16. Other Information

<table>
<thead>
<tr>
<th>NFPA</th>
<th>Health hazard</th>
<th>flammability</th>
<th>Instability</th>
<th>Physical and chemical properties</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>-</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HMIS</th>
<th>Health hazard</th>
<th>flammability</th>
<th>Physical hazards</th>
<th>Personal precautions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>x</td>
</tr>
</tbody>
</table>

Prepared by Kao Collins Inc.
1201 Edison Drive
Cincinnati, OH 45216

Issuing Date 16-Mar-2021
Revision date 24-Feb-2023
Revision note No information available

Disclaimer
The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.
1. Identification of the Substance/Preparation and of the Company/Undertaking

Product identifier
Description: Reliable Yellow Ink

Other means of identification
Part Number: 053013
Synonyms: No information available

Recommended use of the chemical and restrictions on use
Recommended Use: Ink
Uses advised against: No information available

Details of the supplier of the safety data sheet
Company Name: Kao Collins Inc.
Address: 1201 Edison Drive
Cincinnati, OH 45216
Phone: 513-948-9000
Email: Info@kaocollins.com
Emergency telephone number: Chemtrec 1-800-424-9300
International Chemtrec: +1 703-527-3887

2. Hazards Identification

Classification
OSHA Regulatory Status
This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Reproductive toxicity Category 1B

Label Elements

EMERGENCY OVERVIEW

Danger

Hazard statements
May damage fertility or the unborn child

Appearance: yellow
Physical state: liquid
Odor: Acrylic

Precautionary Statements - Prevention
Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Use personal protective equipment as required

Precautionary Statements - Response
IF exposed or concerned: Get medical advice/attention
Precautionary Statements - Storage
Store locked up

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)
Other Information
• Causes mild skin irritation
Unknown acute toxicity 23.3 % of the mixture consists of ingredient(s) of unknown toxicity

3. Composition/information on Ingredients

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS No</th>
<th>Weight-%</th>
<th>Trade secret</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol</td>
<td>Proprietary</td>
<td>1 - 5</td>
<td>*</td>
</tr>
<tr>
<td>Lactam</td>
<td>Proprietary</td>
<td>0.1 - &lt;1</td>
<td>*</td>
</tr>
<tr>
<td>Ethanol</td>
<td>64-17-5</td>
<td>0.01 - &lt;0.1</td>
<td>*</td>
</tr>
</tbody>
</table>

*The exact percentage (concentration) of composition has been withheld as a trade secret.

NOTE
Remaining components are either not hazardous or below threshold limits.

4. First aid measures

Description of first aid measures

General advice In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Eye contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If symptoms persist, call a physician.

Skin Contact Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If symptoms persist, call a physician.

Inhalation None under normal use conditions. Move to fresh air in case of accidental inhalation of vapors. If breathing is irregular or stopped, administer artificial respiration. If symptoms persist, call a physician.

Ingestion Do NOT induce vomiting. Drink 1 or 2 glasses of water. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately.

Most important symptoms and effects, both acute and delayed

Symptoms Hives.

Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically.

5. Fire-fighting measures

Suitable extinguishing media
Use Carbon dioxide (CO2) Dry chemical Alcohol resistant foam

Unsuitable extinguishing media None.

Specific hazards arising from the chemical
Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes.

**Explosion data**
- Sensitivity to Mechanical Impact: None.
- Sensitivity to Static Discharge: None.

**Protective equipment and precautions for firefighters**
Wear self-contained breathing apparatus and protective suit.

### 6. Accidental release measures

<table>
<thead>
<tr>
<th>Personal precautions, protective equipment and emergency procedures</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Personal precautions</strong></td>
</tr>
<tr>
<td>Use personal protection recommended in Section 8.</td>
</tr>
<tr>
<td><strong>Environmental precautions</strong></td>
</tr>
<tr>
<td>Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.</td>
</tr>
<tr>
<td>Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.</td>
</tr>
</tbody>
</table>

**Methods and material for containment and cleaning up**
- **Methods for containment**: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Prevent further leakage or spillage if safe to do so.
- **Methods for cleaning up**: After cleaning, flush away traces with water.

### 7. Handling and Storage

**Precautions for safe handling**
- **Handling**: Use personal protective equipment as required. Avoid contact with eyes, skin and clothing. Avoid breathing vapors or mists. Ensure adequate ventilation.

**Conditions for safe storage, including any incompatibilities**
- **Storage**: Keep containers tightly closed in a dry, cool and well-ventilated place.
- **Incompatible materials**: Strong oxidizing agents.

### 8. Exposure Controls/Personal Protection

**Control parameters**
- **Exposure guidelines**: NIOSH IDLH: Immediately Dangerous to Life or Health

**Appropriate engineering controls**
- **Engineering Measures**: Ensure adequate ventilation, especially in confined areas. Showers. Eyewash stations.

**Individual protection measures, such as personal protective equipment**
- **Eye/Face Protection**: Tight sealing safety goggles. Wear safety glasses with side shields (or goggles). If splashes are likely to occur.
- **Skin and body protection**: For operations where prolonged or repeated skin contact may occur, impervious gloves should be worn.
- **Respiratory protection**: None under normal use conditions.
Hygiene Measures

Wash contaminated clothing before reuse. Handle in accordance with good industrial hygiene and safety practice.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
<th>Remarks • Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>liquid</td>
<td></td>
</tr>
<tr>
<td>Appearance</td>
<td>yellow</td>
<td>Odor</td>
</tr>
<tr>
<td>Color</td>
<td>No information available</td>
<td>Odor Threshold</td>
</tr>
<tr>
<td><strong>pH</strong></td>
<td>8.5 - 10.5</td>
<td></td>
</tr>
<tr>
<td>Melting point / freezing point</td>
<td>&gt; 90 °C</td>
<td></td>
</tr>
<tr>
<td>Boiling point / boiling range</td>
<td>&gt; 100 °C</td>
<td></td>
</tr>
<tr>
<td>Flash point</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Flammability Limit in Air</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Upper flammability limit:</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Lower flammability limit:</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Vapor density</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Specific gravity</td>
<td>1.0 - 1.1</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Water solubility</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Partition coefficient</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>&gt;200 °C</td>
<td></td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Kinematic viscosity</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Dynamic viscosity</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Other Information</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Softening point</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Molecular weight</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>VOC content</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Liquid Density</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Bulk density</td>
<td>No information available</td>
<td></td>
</tr>
</tbody>
</table>

10. Stability and Reactivity

Reactivity

No data available

Chemical stability

Stable under normal conditions.

Possibility of Hazardous Reactions

None under normal processing.

Hazardous polymerization

Hazardous polymerization does not occur.

Conditions to avoid

Extremes of temperature and direct sunlight.

Incompatible materials

Strong oxidizing agents.
11. Toxicological Information

Information on likely routes of exposure

Product Information
The product has not been tested

Inhalation
May cause irritation of respiratory tract. Avoid breathing vapors or mists.

Eye contact
Contact with eyes may cause irritation. Avoid contact with eyes.

IF ON SKIN
May cause irritation. Avoid contact with skin.

Ingestion
May be harmful if swallowed. Do NOT taste or swallow.

Information on toxicological effects

Symptoms
No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

irritation
May cause irritation of respiratory tract. May cause skin and eye irritation.

Sensitization
No information available.

Mutagenic effects
No information available.

Carcinogenicity
The table below indicates whether each agency has listed any ingredient as a carcinogen. This product contains Ethanol which is classified as a possible carcinogen when ingested in the form of an alcoholic beverage. This is irrelevant as this product is used for ink jet applications not an alcoholic beverage.

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>ACGIH</th>
<th>IARC</th>
<th>NTP</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol (64-17-5)</td>
<td>A3</td>
<td>Group 1</td>
<td>Known</td>
<td>X</td>
</tr>
</tbody>
</table>

IARC: (International Agency for Research on Cancer)
Group 1 - Carcinogenic to Humans
NTP: (National Toxicity Program)
Known - Known Carcinogen

Reproductive toxicity
Possible risk of impaired fertility. May impair fertility. May cause harm to the unborn child. Possible risk of harm to the unborn child.

STOT - single exposure
No information available.

STOT - repeated exposure
No information available.

Aspiration hazard
No information available.

Numerical measures of toxicity - Product Information

Unknown acute toxicity
23.3 % of the mixture consists of ingredient(s) of unknown toxicity

The following values are calculated based on chapter 3.1 of the GHS document.

| ATEmix (oral) | 49941 mg/kg |
| ATEmix (dermal) | 149883 mg/kg |
| ATEmix (inhalation-dust/mist) | 26 mg/l |
| ATEmix (inhalation-vapor) | 709.8 mg/l |

12. Ecological Information

Ecotoxicity
0 % of the mixture consists of component(s) of unknown hazards to the aquatic environment
<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Algae/aquatic plants</th>
<th>Toxicity to Fish</th>
<th>Crustacea</th>
</tr>
</thead>
</table>
| Lactam        | -                    | 464 - 999 96h Danio rerio mg/L  
|               |                      | LC50 static     | -         |
| Ethanol 64-17-5 | -                      | 13400 - 15100 96h Pimephales promelas mg/L  
|               |                       | LC50 flow-through  
|               |                       | 12.0 - 16.0 96h Oncorhynchus mykiss mL/L  
|               |                       | LC50 static 100: 96h Pimephales promelas mg/L  
|               |                       | LC50 static     | 2: 48h Daphnia magna mg/L  
|               |                       | EC50 Static 9268 - 14221 48h  
|               |                       | Daphnia magna mg/L LC50 10800: 24h Daphnia magna mg/L EC50 |

**Persistence and degradability**
No information available.

**Bioaccumulation/Accumulation**
No information available.

**Mobility**
No information available.

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Partition coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol 64-17-5</td>
<td>-0.32</td>
</tr>
</tbody>
</table>

**Other adverse effects**
No information available

## 13. Disposal Considerations

**Waste treatment methods**

Waste treatment methods
Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging
Do not re-use empty containers.

This product contains one or more substances that are listed with the State of California as a hazardous waste.

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>California Hazardous Waste Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol 64-17-5</td>
<td>Toxic; Ignitable</td>
</tr>
</tbody>
</table>

## 14. Transport Information

**DOT**
Not regulated

**TDG**
Not regulated

**MEX**
Not regulated

**ICAO**
Not regulated

**IATA**
Not regulated

**IMDG/IMO**
Not regulated

**RID**
Not regulated

**ADR**
Not regulated

**ADN**
Not regulated
15. Regulatory Information

International Inventories

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>TSCA</th>
<th>DSL/NDSL</th>
<th>EINECS/ELINCS</th>
<th>ENCS</th>
<th>IECSC</th>
<th>KECL</th>
<th>PICCS</th>
<th>AICS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Lactam</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>-</td>
<td>X</td>
<td>-</td>
</tr>
<tr>
<td>Ethanol 64-17-5</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

U.S. Federal Regulations

SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

<table>
<thead>
<tr>
<th>Hazard Category</th>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute health hazard</td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Chronic Health Hazard</td>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Fire hazard</td>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Sudden release of pressure hazard</td>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Reactive Hazard</td>
<td></td>
<td>No</td>
</tr>
</tbody>
</table>

Clean Water Act
This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA
This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

U.S. State Regulations

California Proposition 65
This product contains the following Proposition 65 chemicals:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>California Prop 65</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol - 64-17-5</td>
<td>Carcinogen</td>
</tr>
<tr>
<td></td>
<td>Developmental</td>
</tr>
</tbody>
</table>

U.S. State Right-to-Know Regulations

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>New Jersey</th>
<th>Massachusetts</th>
<th>Pennsylvania</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol 64-17-5</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

U.S. EPA Label Information
EPA Pesticide registration number Not applicable

16. Other Information
Disposal

No information available

Disclaimer

The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.
1. Identification of the Substance/Preparation and of the Company/Undertaking

Product identifier
Description Reliable Cyan

Other means of identification
Part Number 053013
Synonyms No information available

Recommended use of the chemical and restrictions on use
Recommended Use Ink
Uses advised against No information available

Details of the supplier of the safety data sheet
Company Name Kao Collins Inc.
1201 Edison Drive
Cincinnati, OH 45216
PH: 513-948-9000
Info@kaocollins.com
Emergency telephone number Chemtrec 1-800-424-9300
Emergency Telephone International Chemtrec: +1 703-527-3887

2. Hazards Identification

Classification
OSHA Regulatory Status This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

<table>
<thead>
<tr>
<th>Hazard</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serious eye damage/eye irritation</td>
<td>Category 1</td>
</tr>
<tr>
<td>Reproductive toxicity</td>
<td>Category 1B</td>
</tr>
</tbody>
</table>

Label Elements

EMERGENCY OVERVIEW

Danger

Hazard statements
Causes serious eye damage
May damage fertility or the unborn child

Appearance Cyan Physical state liquid Odor Acryl id

Precautionary Statements - Prevention
Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Use personal protective equipment as required
Precautionary Statements - Response
IF exposed or concerned: Get medical advice/attention
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
Immediately call a POISON CENTER or doctor/physician

Precautionary Statements - Storage
Store locked up

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Other Information
• Causes mild skin irritation

3. Composition/information on Ingredients

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS No</th>
<th>Weight-%</th>
<th>Trade secret</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copper, [29H,31H-phthalocyaninato(2-)-N29,N30,N31,N32]-, aminosulfonvl sulfo derivitives, sodium salts</td>
<td>90295-11-7</td>
<td>1 - 10</td>
<td>*</td>
</tr>
<tr>
<td>Alcohol</td>
<td>Proprietary</td>
<td>1 - 5</td>
<td>*</td>
</tr>
<tr>
<td>Lactam</td>
<td>Proprietary</td>
<td>0.1 - &lt;1</td>
<td>*</td>
</tr>
<tr>
<td>Ethanol</td>
<td>64-17-5</td>
<td>0.01 - &lt;0.1</td>
<td>*</td>
</tr>
</tbody>
</table>

*The exact percentage (concentration) of composition has been withheld as a trade secret.

NOTE
Remaining components are either not hazardous or below threshold limits.

4. First aid measures

Description of first aid measures

General advice
Immediate medical attention is not required. If symptoms persist, call a physician. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Eye contact
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. If symptoms persist, call a physician.

Skin Contact
Wash off immediately with plenty of water for at least 15 minutes. Wash off immediately with soap and plenty of water. Immediate medical attention is not required. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If skin irritation persists, call a physician.

Inhalation
Remove to fresh air. Move to fresh air in case of accidental inhalation of vapors. If symptoms persist, call a physician.

Ingestion
Immediate medical attention is not required. Rinse mouth. Drink plenty of water. Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Call a physician.

Self-protection of the first aider
Use personal protective equipment as required.
Most important symptoms and effects, both acute and delayed

Symptoms
Hives.

Indication of any immediate medical attention and special treatment needed

Notes to Physician
May cause sensitization of susceptible persons. Use of epinephrine may be indicated. Treat symptomatically.

5. Fire-fighting measures

Suitable extinguishing media
Use Carbon dioxide (CO2) Dry chemical Alcohol resistant foam

Unsuitable extinguishing media None.

Specific hazards arising from the chemical
Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes. Thermal decomposition can lead to release of irritating and toxic gases and vapors. In the event of fire and/or explosion do not breathe fumes. May cause sensitization in susceptible persons.

Explosion data
Sensitivity to Mechanical Impact None.
Sensitivity to Static Discharge None.

Protective equipment and precautions for firefighters
Wear self-contained breathing apparatus and protective suit.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions
Avoid contact with skin and eyes. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Use personal protective equipment as required.

Environmental precautions

Environmental precautions
Prevent entry into waterways, sewers, basements or confined areas. Do not flush into surface water or sanitary sewer system. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

Methods and material for containment and cleaning up

Methods for containment
Prevent further leakage or spillage if safe to do so.

Methods for cleaning up
After cleaning, flush away traces with water. Prevent product from entering drains. Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

7. Handling and Storage

Precautions for safe handling

Handling
Ensure adequate ventilation. Use with local exhaust ventilation. Use personal protective equipment as required. Do not breathe dust/fume/gas/mist/vapors/spray.

Conditions for safe storage, including any incompatibilities

Storage
Incompatible materials

Strong oxidizing agents.

8. Exposure Controls/Personal Protection

Control parameters

Exposure guidelines

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>NIOSH IDLH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copper, 29H,31H-phthalocyaninato(2-)-N29, N30,N31,N32, aminosulfonyl sulfic derivatives, sodium salts 90295-11-7</td>
<td>TWA: 1 mg/m³</td>
<td>-</td>
<td>IDLH: 100 mg/m³ TWA: 1 mg/m³</td>
</tr>
</tbody>
</table>

NIOSH IDLH: Immediately Dangerous to Life or Health

Appropriate engineering controls

Engineering Measures

Ensure adequate ventilation, especially in confined areas. Showers. Eyewash stations.

Individual protection measures, such as personal protective equipment

Eye/Face Protection

Tight sealing safety goggles. Face protection shield.

Skin and body protection

For operations where prolonged or repeated skin contact may occur, impervious gloves should be worn.

Respiratory protection

None under normal use conditions.

Hygiene Measures

Wash contaminated clothing before reuse. When using do not eat or drink. Regular cleaning of equipment, work area and clothing is recommended.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
<th>Remarks • Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>liquid</td>
<td></td>
</tr>
<tr>
<td>Appearance</td>
<td>Cyan</td>
<td></td>
</tr>
<tr>
<td>Color</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Odor</td>
<td>Acrylic</td>
<td></td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>pH</td>
<td>7 – 9</td>
<td></td>
</tr>
<tr>
<td>Melting point / freezing point</td>
<td>&gt; 90 °C</td>
<td></td>
</tr>
<tr>
<td>Boiling point / boiling range</td>
<td>&gt; 100 °C</td>
<td></td>
</tr>
<tr>
<td>Flash point</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Flammability Limit in Air</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Upper flammability limit:</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Lower flammability limit:</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Vapor density</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Specific gravity</td>
<td>1.0 – 1.1</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Water solubility</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Partition coefficient</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>&gt;200 °C</td>
<td></td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Kinematic viscosity</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Dynamic viscosity</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>No information available</td>
<td></td>
</tr>
</tbody>
</table>
**Other Information**

- Softening point: No information available
- Molecular weight: No information available
- VOC content: No information available
- Liquid Density: No information available
- Bulk density: No information available

---

**10. Stability and Reactivity**

**Reactivity**
no data available

**Chemical stability**
Stable under normal conditions.

**Possibility of Hazardous Reactions**
None under normal processing.

- **Hazardous polymerization**
  Hazardous polymerization does not occur.

**Conditions to avoid**
Extremes of temperature and direct sunlight.

**Incompatible materials**
Strong oxidizing agents.

**Hazardous Decomposition Products**
Carbon oxides.

---

**11. Toxicological Information**

**Information on likely routes of exposure**

- **Product Information**
The product has not been tested

  - **Inhalation**
    May cause irritation of respiratory tract. Avoid breathing vapors or mists.

  - **Eye contact**
    Avoid contact with eyes. Causes serious eye damage.

  - **IF ON SKIN**
    May cause irritation. Avoid contact with skin.

  - **Ingestion**
    May be harmful if swallowed. Do NOT taste or swallow.

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
<th>Inhalation LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lactam</td>
<td>= 1350 mg/kg (Rat)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Ethanol 64-17-5</td>
<td>= 7060 mg/kg (Rat)</td>
<td>-</td>
<td>= 124.7 mg/L (Rat) 4 h</td>
</tr>
</tbody>
</table>

**Information on toxicological effects**

- **Symptoms**
  No information available.

- **Delayed and immediate effects as well as chronic effects from short and long-term exposure**

  - **Serious eye damage/eye irritation**
    Risk of serious damage to eyes. Irritating to eyes.

  - **irritation**
    Causes serious eye damage. May cause irritation to the skin and respiratory system.

  - **Sensitization**
    No information available.

  - **Mutagenic effects**
    No information available.

  - **Carcinogenicity**
    The table below indicates whether each agency has listed any ingredient as a carcinogen.
This product contains Ethanol which is classified as a possible carcinogen when ingested in the form of an alcoholic beverage. This is irrelevant as this product is used for ink jet ink applications not an alcoholic beverage.

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>AGCIH</th>
<th>IARC</th>
<th>NTP</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol 64-17-5</td>
<td>A3</td>
<td>Group 1</td>
<td>Known</td>
<td>X</td>
</tr>
</tbody>
</table>

**IARC**: (International Agency for Research on Cancer)
- **Group 1**: Carcinogenic to Humans

**NTP**: (National Toxicity Program)
- Known Carcinogen

**Reproductive toxicity**
Possible risk of impaired fertility. May impair fertility. May cause harm to the unborn child.
Possible risk of harm to the unborn child.

**STOT - single exposure**
No information available.

**STOT - repeated exposure**
No information available.

**Chronic toxicity**
Repeated contact may cause allergic reactions in very susceptible persons. Avoid repeated exposure.

**Aspiration hazard**
No information available.

**Numerical measures of toxicity - Product Information**

The following values are calculated based on chapter 3.1 of the GHS document:

- **ATEmix (oral)**: 49941 mg/kg
- **ATEmix (dermal)**: 149883 mg/kg
- **ATEmix (inhalation-dust/mist)**: 26 mg/l
- **ATEmix (inhalation-vapor)**: 892.9 mg/l

**12. Ecological Information**

**Ecotoxicity**
Harmful to aquatic life

0 % of the mixture consists of component(s) of unknown hazards to the aquatic environment.

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Algae/aquatic plants</th>
<th>Toxicty to Fish</th>
<th>Crustacea</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lactam</td>
<td>-</td>
<td>464 - 999: 96 h Danio rerio mg/L LC50 static</td>
<td>-</td>
</tr>
<tr>
<td>Ethanol 64-17-5</td>
<td>-</td>
<td>13400 - 15100: 96 h Pimephales promelas mg/L LC50 flow-through 12.0 - 16.0: 96 h Oncorhynchus mykiss mL/L LC50 static 100: 96 h Pimephales promelas mg/L LC50 static</td>
<td>2: 48 h Daphnia magna mg/L EC50 Static 9268 - 14221: 48 h Daphnia magna mg/L LC50 10800: 24 h Daphnia magna mg/L EC50</td>
</tr>
</tbody>
</table>

**Persistence and degradability**
No information available.

**Bioaccumulation/Accumulation**
No information available.

**Mobility**
No information available.

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Partition coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol 64-17-5</td>
<td>-0.32</td>
</tr>
</tbody>
</table>

**Other adverse effects**
No information available

**13. Disposal Considerations**

**Waste treatment methods**
Disposal should be in accordance with applicable regional, national and local laws and
regulations.

**Contaminated packaging**  Do not re-use empty containers.

This product contains one or more substances that are listed with the State of California as a hazardous waste.

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>California Hazardous Waste Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copper, [29H,31H-phthalocyaninato(2-)-N29,N30,N31,N32]-aminosulfonyl sulfo derivitives, sodium salts 90295-11-7</td>
<td>Toxic</td>
</tr>
<tr>
<td>Ethanol 64-17-5</td>
<td>Toxic; Ignitable</td>
</tr>
</tbody>
</table>

### 14. Transport Information

**DOT**  Not regulated

**TDG**  Not regulated

**MEX**  Not regulated

**ICAO**  Not regulated

**IATA**  Not regulated

**IMDG/IMO**  Not regulated

**RID**  Not regulated

**ADR**  Not regulated

**ADN**  Not regulated

### 15. Regulatory Information

**International Inventories**

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>TSCA</th>
<th>DSL/NDSL</th>
<th>EINECS/ELI NCS</th>
<th>ENCS</th>
<th>IECSC</th>
<th>KECL</th>
<th>PICCS</th>
<th>AICS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copper, [29H,31H-phthalocyaninato(2-)-N29,N30,N31,N32]-aminosulfonyl sulfo derivitives, sodium salts 90295-11-7</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Alcohol 64-17-5</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>-</td>
<td>X</td>
<td>-</td>
</tr>
<tr>
<td>Lactam 64-17-5</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>-</td>
<td>X</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Ethanol 64-17-5</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

**Legend**

- **TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory
- **DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List
- **EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
- **ENCS** - Japan Existing and New Chemical Substances
- **IECSC** - China Inventory of Existing Chemical Substances
SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372. This information must be included in all SDSs that are copied and distributed for this material.

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>SARA 313 - Threshold Values %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copper, [29H,31H-phthalocyaninato(2-)-N29,N30,N31,N32]-aminosulfonyl sulfo derivitives, sodium salts - 90295-11-7</td>
<td>1.0</td>
</tr>
</tbody>
</table>

SARA 311/312 Hazard Categories
- Acute health hazard: Yes
- Chronic Health Hazard: No
- Fire hazard: No
- Sudden release of pressure hazard: No
- Reactive Hazard: No

Clean Water Act
This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42):

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CWA - Reportable Quantities</th>
<th>CWA - Toxic Pollutants</th>
<th>CWA - Priority Pollutants</th>
<th>CWA - Hazardous Substances</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copper, [29H,31H-phthalocyaninato(2-)-N29,N30,N31,N32]-aminosulfonyl sulfo derivitives, sodium salts - 90295-11-7</td>
<td>-</td>
<td>X</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

CERCLA
This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

U.S. State Regulations
California Proposition 65
This product contains the following Proposition 65 chemicals:

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>California Prop 65</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol - 64-17-5</td>
<td>Carcinogen</td>
</tr>
<tr>
<td></td>
<td>Developmental</td>
</tr>
</tbody>
</table>

U.S. State Right-to-Know Regulations

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>New Jersey</th>
<th>Massachusetts</th>
<th>Pennsylvania</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copper, [29H,31H-phthalocyaninato(2-)-N29,N30,N31,N32]-aminosulfonyl sulfo derivitives, sodium salts - 90295-11-7</td>
<td>X</td>
<td>-</td>
<td>X</td>
</tr>
<tr>
<td>Ethanol - 64-17-5</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

U.S. EPA Label Information
EPA Pesticide registration number: Not applicable

16. Other Information

<table>
<thead>
<tr>
<th>NFPA</th>
<th>Health hazard 1</th>
<th>flammability 1</th>
<th>Instability 0</th>
<th>Physical and chemical properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>HMIS</td>
<td>Health hazard 1</td>
<td>flammability 1</td>
<td>Physical hazards 0</td>
<td>Personal precautions</td>
</tr>
</tbody>
</table>
The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of Safety Data Sheet