Section 1. Product and Company Identification

<table>
<thead>
<tr>
<th>Product Name</th>
<th>RMS03-001C Licrivue™ Reactive Mesogen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturer</td>
<td>EMD Chemicals Inc.</td>
</tr>
<tr>
<td></td>
<td>Pigments Division</td>
</tr>
<tr>
<td></td>
<td>7 Skyline Drive</td>
</tr>
<tr>
<td></td>
<td>Hawthorne, NY 10532</td>
</tr>
<tr>
<td>For More Information Call</td>
<td>(914) 592-4660</td>
</tr>
<tr>
<td></td>
<td>M-F, 9AM-4:30 PM EST</td>
</tr>
<tr>
<td>In Case of Emergency Call</td>
<td>800-424-9300 CHEMTREC (USA)</td>
</tr>
<tr>
<td></td>
<td>613-996-6666 (Canada)</td>
</tr>
<tr>
<td></td>
<td>24 Hours/Day: 7 Days/Week</td>
</tr>
<tr>
<td>Synonym</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Material Uses</td>
<td>Electronics Displays</td>
</tr>
<tr>
<td>Chemical Family</td>
<td>Reactive Mesogen</td>
</tr>
</tbody>
</table>

Section 2. Composition and Information on Ingredients

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS #</th>
<th>% by Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>RMS03-001C Licrivue™ Reactive Mesogen</td>
<td>Mixture (LC)*</td>
<td>100</td>
</tr>
</tbody>
</table>


Section 3. Hazards Identification

Physical State and Appearance
Liquid. (Colorless to yellowish liquid with a solvent odor)

Emergency Overview
WARNING
FLAMMABLE LIQUID AND VAPOR.
MAY CAUSE RESPIRATORY TRACT, EYE AND SKIN IRRITATION.

Routes of Entry
Absorbed through skin. Eye contact. Inhalation. Ingestion (not anticipated).

Potential Acute Health Effects

<table>
<thead>
<tr>
<th>Eyes</th>
<th>May cause eye irritation. Symptoms include: itching and redness after contact.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin</td>
<td>May cause skin irritation. Symptoms include: itching and redness after contact. Harmful if absorbed through the skin.</td>
</tr>
<tr>
<td>Inhalation</td>
<td>May cause coughing, wheezing, and general respiratory tract irritation.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>Not an intended route of exposure. Effects unknown, treat as toxic if swallowed.</td>
</tr>
</tbody>
</table>

Potential Chronic Health Effects

Carcinogenic Effects
This material is not known to cause cancer in animals or humans.

Medical Conditions Aggravated by Overexposure:
Additional information  See Toxicological Information (section 11)

Repeated or prolonged inhalation of vapors may aggravate respiratory medical conditions.

Continued on Next Page
Section 4. First Aid Measures

Eye Contact
Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If symptoms persist, seek medical attention.

Skin Contact
In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. If symptoms persist, seek medical attention.

Inhalation
If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Ingestion
Do not ingest. If this material is swallowed, call a physician immediately. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband.

Section 5. Fire Fighting Measures

Flammability of the Product
Product will burn.

Auto-ignition Temperature
Not available.

Flash Points
Closed cup: 48°C (118.4°F).

Flammable Limits
Not available.

Products of Combustion
Development of hazardous combustion gases or vapors possible in the event of fire. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back.

Fire Hazards in Presence of Various Substances
Not available.

Explosion Hazards in Presence of Various Substances
Risks of explosion of the product in presence of static discharge: No.
Risks of explosion of the product in presence of mechanical impact: No.

Fire Fighting Media and Instructions
In case of fire, use water spray (fog), foam, dry chemical, or CO2.

Protective Clothing (Fire)
Wear self-contained breathing apparatus and full protective clothing.

Special Remarks on Fire Hazards
Combustible when exposed to heat or flame.

Special Remarks on Explosion Hazards
Forms explosive mixtures with air at elevated temperatures.

Section 6. Accidental Release Measures

Small Spill and Leak
Absorb with an inert material and transfer the spilled material and absorbent to an appropriate waste disposal container.

Large Spill and Leak
Keep away from heat. Keep away from sources of ignition. Stop leak if without risk. Absorb with dry earth, sand or other non-combustible material. Do not allow water to enter container. Do not touch spilled material. Prevent entry into sewers, basements or confined areas. Dike if necessary. Call for assistance on disposal.

Spill Kit Information
No specific spill kit required for this product.

Continued on Next Page
Section 7. Handling and Storage

Handling
Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapors, spray or mists. Wash thoroughly after handling.

Storage
At +15 °C to +25°C. Keep container tightly closed in a cool, well-ventilated place. Keep away from sources of ignition. Keep away from heat, sparks and flame.

Section 8. Exposure Controls/Personal Protection

Engineering Controls
Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective occupational exposure limits. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal Protection

<table>
<thead>
<tr>
<th>Eyes</th>
<th>Splash goggles.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Body</td>
<td>Synthetic apron.</td>
</tr>
<tr>
<td>Respiratory</td>
<td>Vapor respirator. Be sure to use an approved/certified respirator or equivalent.</td>
</tr>
<tr>
<td>Hands</td>
<td>Impervious gloves.</td>
</tr>
<tr>
<td>Feet</td>
<td>Not applicable.</td>
</tr>
</tbody>
</table>

Protective Clothing (Pictograms)

Personal Protection in Case of a Large Spill
Splash goggles. Synthetic apron. Nitrile gloves. Wear MSHA/NIOSH-approved self-contained breathing apparatus or equivalent and full protective gear.

Product Name | Exposure Limits
---|---
RMS03-001C Licrivue™ Reactive Mesogen | Not available.

Section 9. Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Odor</td>
<td>Solvent</td>
</tr>
<tr>
<td>Color</td>
<td>Colorless. Colorless to yellow</td>
</tr>
<tr>
<td>Physical State and Appearance</td>
<td>Liquid. (Colorless to yellowish liquid with a solvent odor)</td>
</tr>
<tr>
<td>Molecular Weight</td>
<td>Not available.</td>
</tr>
<tr>
<td>Molecular Formula</td>
<td>Not available.</td>
</tr>
<tr>
<td>pH</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Boiling/Condensation Point</td>
<td>Not available.</td>
</tr>
<tr>
<td>Melting/Freezing Point</td>
<td>Not available.</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>Not available.</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>Not available.</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>Not available.</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>Not available.</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

Continued on Next Page
LogK_{ow} Not available.

Solubility Not available.

### Section 10. Stability and Reactivity

<table>
<thead>
<tr>
<th>Stability and Reactivity</th>
<th>The product is stable.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conditions of Instability</td>
<td>Fire or excessive heat.</td>
</tr>
<tr>
<td>Incompatibility with Various Substances</td>
<td>Incompatible with acids, bases, alkalis, and oxidizing agents.</td>
</tr>
<tr>
<td>Hazardous Decomposition Products</td>
<td>Combustible. Vapors are heavier than air. Development of hazardous combustion gases or vapors possible in the event of fire. Forms explosive mixtures with air at elevated temperatures.</td>
</tr>
<tr>
<td>Hazardous Polymerization</td>
<td>Will not occur.</td>
</tr>
</tbody>
</table>

### Section 11. Toxicological Information

#### RTECS Number:
RMS03-001C Licrivue™ Reactive Mesogen Not available.

#### Toxicity
- Acute oral toxicity (LD_{50}): 8532 mg/kg [Rat].
- Acute dermal toxicity (LD_{50}): 7500 mg/kg [Rabbit].

#### Chronic Effects on Humans
CARCINOGENIC EFFECTS: Not available.
MUTAGENIC EFFECTS: Not available.
TERATOGENIC EFFECTS: Not available.
DEVELOPMENTAL TOXICITY: Not available.
Repeated or prolonged inhalation of vapors may lead to chronic respiratory irritation.

#### Acute Effects on Humans
May cause skin, eye and respiratory irritation.

#### Synergetic Products (Toxicologically)
Not available.

#### Irritancy
Draize Test: Not available.

#### Sensitization
Not available.

#### Carcinogenic Effects
This material is not known to cause cancer in animals or humans.

#### Toxicity to Reproductive System
Not available.

#### Teratogenic Effects
Not available.

#### Mutagenic Effects
Not available.

### Section 12. Ecological Information

#### Ecotoxicity
Not available.

#### BOD5 and COD
Not available.

### Section 13. Disposal Considerations

#### EPA Waste Number
Type: Hazardous chemical waste.
Location: United States
Classification: D001 (classification description EPA)

#### Treatment
Dispose of according to all federal, state and local regulations.

Continued on Next Page
Section 14. Transport Information

**DOT Classification**

- Proper shipping name: FLAMMABLE LIQUID, N.O.S. 
  ((2-METHOXY-1-METHYL-ETHYL)-ACETATE)
- Hazard class: 3
- UN number: 1993
- Packing Group: III
- ERG (Emergency Response Guide) No.: 128
- Additional information: Remarks
  - No additional remark.

**TDG Classification**

- Proper shipping name: FLAMMABLE LIQUID, N.O.S. 
  ((2-METHOXY-1-METHYL-ETHYL)-ACETATE)
- Hazard class: 3
- UN number: 1993
- Packing Group: III
- Additional information: Remarks
  - No additional remark.

**IMO/IMDG Classification**

- Proper shipping name: FLAMMABLE LIQUID, N.O.S. 
  ((2-METHOXY-1-METHYL-ETHYL)-ACETATE)
- Hazard class: 3
- UN number: 1993
- Packing Group: III
- Additional information: Remarks
  - No additional remark.

**ICAO/IATA Classification**

- Proper shipping name: FLAMMABLE LIQUID, N.O.S. 
  ((2-METHOXY-1-METHYL-ETHYL)-ACETATE)
- Hazard class: 3
- UN number: 1993
- Packing Group: III
- Additional information: Remarks
  - No additional remark.

Section 15. Regulatory Information

**U.S. Federal Regulations**

- TSCA: FOR RESEARCH AND DEVELOPMENT USE ONLY. Use under the supervision of qualified personnel.
- SARA 302/304/311/312 extremely hazardous substances: No products were found.
- SARA 302/304 emergency planning and notification: No products were found.
- SARA 302/304/311/312 hazardous chemicals: No products were found.
- SARA 311/312 MSDS distribution - chemical inventory - hazard identification: No products were found.
- SARA 313 Form R Reporting Requirements- No products were found.
- SARA 313 Supplier Notification- No products were found.
- Clean Water Act (CWA) 307: No products were found.
- Clean Water Act (CWA) 311: No products were found.
- Clean Air Act (CAA) 112 accidental release prevention: No products were found.
- Clean Air Act (CAA) 112 regulated flammable substances: No products were found.
- Clean Air Act (CAA) 112 regulated toxic substances: No products were found.

**WHMIS (Canada)**

- Class B-3: Combustible liquid with a flash point between 37.8°C (100°F) and 93.3°C (200°F).

Continued on Next Page
This product or its components are not listed on the DSL/NDSL.

International Regulations

**EINECS**

Not available.

**DSCL (EEC)**

R10- Flammable.
R43- May cause sensitization by skin contact.
R36- Irritating to eyes.
R52/53- Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

International Lists

No products were found.

State Regulations

No products were found.

California Prop. 65: No products were found.

**Section 16. Other Information**

<table>
<thead>
<tr>
<th>Hazardous Material Information System (U.S.A.)</th>
<th>National Fire Protection Association (U.S.A.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health 1</td>
<td>Fire Hazard 2</td>
</tr>
<tr>
<td>Fire Hazard 2</td>
<td>Reactivity 0</td>
</tr>
<tr>
<td>Reactivity 0</td>
<td>Personal Protection H</td>
</tr>
</tbody>
</table>

Other Special Considerations

No additional information.

Changed Since Last Revision

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