**SECTION 1: Identification of the substance/mixture and of the company/undertaking**

1.1. **Product identifier**

Product form: Mixture
Trade name: Tempilstik® 119 °F (48 °C), 122 °F (50 °C), 125 °F (52 °C), 1100 °F (593 °C)

1.2. **Relevant identified uses of the substance or mixture and uses advised against**

Use of the substance/mixture: Temperature indicator

1.3. **Details of the supplier of the safety data sheet**

LA-CO Industries, Inc.
1201 Pratt Boulevard
Elk Grove Village, IL. 60007-5746
Phone: (847) 956-7600
Fax: (847) 956-9885
E-mail: customer_service@laco.com

1.4. **Emergency telephone number**


**SECTION 2: Hazards identification**

2.1. **Classification of the substance or mixture**

**Classification in accordance with the Globally Harmonized Standard**

Eye Irrit. 2A  H319
Full text of H-phrases: see section 16

2.2. **Label elements**

**GHS-US labelling**

Hazard pictograms (GHS-US):

![GHS07]

Signal word (GHS-US): Warning
Hazard statements (GHS-US): H319 - Causes serious eye irritation
Precautionary statements (GHS-US):

P264 - Wash hands thoroughly after handling
P280 - Wear eye protection, protective gloves
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P337+P313 - If eye irritation persists: Get medical advice/attention

2.3. **Other hazards**

No additional information available

**SECTION 3: Composition/information on ingredients**

3.1. **Substance**

Not applicable

3.2. **Mixture**

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>% (w/w)</th>
<th>GHS-US classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>myristic acid</td>
<td>(CAS No) 544-63-8</td>
<td>74.78 : 119 °F</td>
<td>Eye Irrit. 2A, H319</td>
</tr>
<tr>
<td></td>
<td></td>
<td>82.26 : 122 °F</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>85.73 : 125 °F</td>
<td></td>
</tr>
<tr>
<td>sodium carbonate</td>
<td>(CAS No) 497-19-8</td>
<td>18.18 : 1100 °F</td>
<td>Eye Irrit. 2A, H319</td>
</tr>
</tbody>
</table>

Full text of H-phrases: see section 16
Tempilstik® 119 °F (48 °C), 122 °F (50 °C), 125 °F (52 °C), 1100 °F (593 °C)

Safety Data Sheet
according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
according to Canadian Hazardous Products Regulations (HPR)

SECTION 4: First aid measures

4.1. Description of first aid measures
First-aid measures general: Never give anything by mouth to an unconscious person. Get medical advice/attention if you feel unwell.
First-aid measures after inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
First-aid measures after skin contact: Gently wash with plenty of soap and water.
First-aid measures after eye contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion: Do NOT induce vomiting. Get medical advice/attention.

4.2. Most important symptoms and effects, both acute and delayed
Symptoms/injuries after eye contact: Causes serious eye irritation.

4.3. Indication of any immediate medical attention and special treatment needed
Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media
Unsuitable extinguishing media: None known.

5.2. Special hazards arising from the substance or mixture
Fire hazard: No specific fire or explosion hazard. Burning produces irritating, toxic and noxious fumes.
Reactivity: No dangerous reactions known.

5.3. Advice for firefighters
Firefighting instructions: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Do not allow run-off from fire fighting to enter drains or water courses.
Protection during firefighting: Do not enter fire area without proper protective equipment, including respiratory protection. Wear a self contained breathing apparatus. Wear fire/flame resistant/retardant clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
General measures: Avoid creating or spreading dust. Avoid contact with skin and eyes.

6.1.1. For non-emergency personnel
Protective equipment: Chemical goggles or safety glasses. Dust impervious gloves.
Emergency procedures: Evacuate unnecessary personnel.

6.1.2. For emergency responders
Protective equipment: Chemical goggles or safety glasses. Dust impervious gloves.
Emergency procedures: Ventilate area.

6.2. Environmental precautions
Avoid release to the environment.

6.3. Methods and material for containment and cleaning up
For containment: Avoid generating dust. Contain and collect as any solid.
Methods for cleaning up: Minimize generation of dust. On land, sweep or shovel into suitable containers.

6.4. Reference to other sections
Section 13: disposal information. Section 7: safe handling. Section 8: personal protective equipment.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Precautions for safe handling: Avoid contact with skin and eyes.
Hygiene measures: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.
7.2. Conditions for safe storage, including any incompatibilities

<table>
<thead>
<tr>
<th>Storage conditions</th>
<th>Keep container tightly closed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incompatible products</td>
<td>Strong oxidizers. Strong bases.</td>
</tr>
<tr>
<td>Prohibitions on mixed storage</td>
<td>Keep away from incompatible materials.</td>
</tr>
<tr>
<td>Storage area</td>
<td>Store in dry, cool, well-ventilated area.</td>
</tr>
</tbody>
</table>

7.3. Specific end use(s)

Temperature indicator.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

<table>
<thead>
<tr>
<th></th>
<th>Tempilstik® 119 °F (48 °C), 122 °F (50 °C), 125 °F (52 °C), 1100 °F (593 °C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGIH</td>
<td>Not applicable</td>
</tr>
<tr>
<td>OSHA</td>
<td>Not applicable</td>
</tr>
<tr>
<td>myristic acid (544-63-8)</td>
<td>ACGIH: Not applicable OSHA: Not applicable</td>
</tr>
<tr>
<td>sodium carbonate (497-19-8)</td>
<td>ACGIH: Not applicable OSHA: Not applicable</td>
</tr>
</tbody>
</table>

8.2. Exposure controls

<table>
<thead>
<tr>
<th>Appropriate engineering controls</th>
<th>Avoid dispersal of dust in the air (ie, clearing dust surfaces with compressed air). Ensure good ventilation of the work station.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal protective equipment</td>
<td>Avoid all unnecessary exposure.</td>
</tr>
<tr>
<td>Hand protection</td>
<td>Wear dust impervious gloves.</td>
</tr>
<tr>
<td>Eye protection</td>
<td>Chemical goggles or safety glasses.</td>
</tr>
<tr>
<td>Respiratory protection</td>
<td>In case of inadequate ventilation wear respiratory protection. Use air-purifying respirator equipped with particulate filtering cartridges.</td>
</tr>
</tbody>
</table>

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Physical state</th>
<th>Solid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>A solid crayon-like marker.</td>
</tr>
<tr>
<td>Colour</td>
<td>Variable.</td>
</tr>
<tr>
<td>Odour</td>
<td>odourless.</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative evaporation rate</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting point</td>
<td>No data available</td>
</tr>
<tr>
<td>Freezing point</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling point</td>
<td>No data available</td>
</tr>
<tr>
<td>Flash point</td>
<td>No data available</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative vapour density at 20 °C</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative density</td>
<td>No data available</td>
</tr>
<tr>
<td>Solubility</td>
<td>No data available</td>
</tr>
<tr>
<td>Log Pow</td>
<td>No data available</td>
</tr>
<tr>
<td>Log Kow</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>No data available</td>
</tr>
</tbody>
</table>
**Tempilstik® 119 °F (48 °C), 122 °F (50 °C), 125 °F (52 °C), 1100 °F (593 °C)**

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

according to Canadian Hazardous Products Regulations (HPR)

<table>
<thead>
<tr>
<th>Viscosity, dynamic</th>
<th>No data available</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explosive properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive limits</td>
<td>No data available</td>
</tr>
</tbody>
</table>

9.2. Other information

VOC content : 0 %

**SECTION 10: Stability and reactivity**

10.1. Reactivity
No dangerous reactions known.

10.2. Chemical stability
The product is stable at normal handling and storage conditions.

10.3. Possibility of hazardous reactions
Hazardous polymerization will not occur.

10.4. Conditions to avoid
Keep away from incompatible materials. Avoid dust formation.

10.5. Incompatible materials
Strong bases. Strong oxidizers.

10.6. Hazardous decomposition products
Thermal decomposition generates: Carbon dioxide. Carbon monoxide.

**SECTION 11: Toxicological information**

11.1. Information on toxicological effects

Acute toxicity : Not classified

**myristic acid (544-63-8)**

| LD50 oral rat | > 10000 mg/kg |

**sodium carbonate (497-19-8)**

| LD50 oral rat | > 5000 mg/kg |
| LD50 dermal rat | > |
| LD50 dermal rabbit | > 2000 mg/kg |
| LC50 inhalation rat (mg/l) | 2300 mg/m³ |

Skin corrosion/irritation : Not classified

Serious eye damage/irritation : Causes serious eye irritation.

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

**sodium carbonate (497-19-8)**

| IARC group | Not listed in carcinogenicity class |
| National Toxicology Program (NTP) Status | Not listed in carcinogenicity class |

Reproductive toxicity : Not classified

Specific target organ toxicity (single exposure) : Not classified

**sodium carbonate (497-19-8)**

| LOAEL (inhalation, rat, dust/mist/fume) | 70 mg/l/4h |

Specific target organ toxicity (repeated exposure) : Not classified

Aspiration hazard : Not classified

**Potential adverse human health effects and symptoms**

Symptoms/injuries after eye contact : Causes serious eye irritation.

Likely routes of exposure : Inhalation; Skin and eye contact

**SECTION 12: Ecological information**

12.1 Toxicity
myristic acid (544-63-8)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 fish 1</td>
<td>&gt; 10000 mg/l 48 h</td>
</tr>
<tr>
<td>EC50 Daphnia 1</td>
<td>&gt; 27 mg/l 16 h</td>
</tr>
</tbody>
</table>

sodium carbonate (497-19-8)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 fish 1</td>
<td>300 mg/l Lepomis macrochirus</td>
</tr>
<tr>
<td>EC50 Daphnia 1</td>
<td>200 - 227 g/l</td>
</tr>
</tbody>
</table>

12.2. Persistence and degradability

myristic acid (544-63-8)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Persistence and degradability</td>
<td>Readily biodegradable.</td>
</tr>
<tr>
<td>Biodegradation</td>
<td>99 % 15 d</td>
</tr>
</tbody>
</table>

12.3. Bioaccumulative potential

myristic acid (544-63-8)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Log Pow</td>
<td>5.2 (5.2 - 6.11)</td>
</tr>
</tbody>
</table>

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Sewage disposal recommendations: Do not dispose of waste into sewer.

Waste disposal recommendations: Dispose in a safe manner in accordance with local/national regulations.

Ecology - waste materials: Avoid release to the environment.

SECTION 14: Transport information

In accordance with DOT and TDG

Not considered a dangerous good for transport regulations

Proper Shipping Name (ADR): Not applicable

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

myristic acid (544-63-8)

Listed on the United States TSCA (Toxic Substances Control Act) inventory.

sodium carbonate (497-19-8)

Listed on the United States TSCA (Toxic Substances Control Act) inventory.

15.2. International regulations

CANADA

myristic acid (544-63-8)

Listed on the Canadian DSL (Domestic Substances List) inventory.

sodium carbonate (497-19-8)

Listed on the Canadian DSL (Domestic Substances List) inventory.

EU-Regulations

myristic acid (544-63-8)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

sodium carbonate (497-19-8)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)
Tempilstik® 119 °F (48 °C), 122 °F (50 °C), 125 °F (52 °C), 1100 °F (593 °C)

Safety Data Sheet
according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
according to Canadian Hazardous Products Regulations (HPR)

National regulations

Tempilstik® 119 °F (48 °C), 122 °F (50 °C), 125 °F (52 °C), 1100 °F (593 °C)
All components are listed on the EEC inventory European Inventory of Existing Commercial Chemical Substances (EINECS).
All ingredients are listed in the Toxic Substances Control Act (TSCA).
All ingredients are listed on the Canadian Domestic Substances List (DSL) or Non-Domestic Substances List (NDSL).

15.3. US State regulations
No additional information available

SECTION 16: Other information

Indication of changes : Original Document.

Data sources : ACGIH (American Conference of Government Industrial Hygienists).

Abbreviations and acronyms : ATE: Acute Toxicity Estimate. CAS (Chemical Abstracts Service) number.
CLP: Classification, Labelling, Packaging.
EC50: Environmental Concentration associated with a response by 50% of the test population.
GHS: Globally Harmonized System (of Classification and Labeling of Chemicals).
LD50: Lethal Dose for 50% of the test population.
OSHA: Occupational Safety & Health Administration.
PBT: Persistent, Bioaccumulative, Toxic.
TWA: Time Weight Average.
TSCA: Toxic Substances Control Act.

Other information : None.

NFPA health hazard : 1 - Exposure could cause irritation but only minor residual injury even if no treatment is given.
NFPA fire hazard : 1 - Must be preheated before ignition can occur.
NFPA reactivity : 0 - Normally stable, even under fire exposure conditions, and not reactive with water.

Full text of H-phrases:

<table>
<thead>
<tr>
<th>Eye Irrit. 2A</th>
<th>Serious eye damage/eye irritation, Category 2A</th>
</tr>
</thead>
<tbody>
<tr>
<td>H319</td>
<td>Causes serious eye irritation</td>
</tr>
</tbody>
</table>

SDS Prepared by: The Redstone Group, LLC
6077 Frantz Rd.
Suite 206
Dublin, OH USA 43016
T 614-923-7472
www.redstonegrp.com

LACO NA GHS SDS
This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product

17/04/2015 EN (English) SDS Ref.: LACO1504024 6/1