Thermomelt® HEAT-STIK Markers 175 °F (79, 80 °C), 182 °F (83 °C)

LA-CO Industries, Inc.

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

1.1. Product identifier
Product form : Mixture
Product name : Thermomelt® HEAT-STIK Markers 175 °F (79, 80 °C), 182 °F (83 °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
Acute Tox. 4 (Oral) H302
Acute Tox. 4 (Dermal) H312
Acute Tox. 4 (Inhalation:dust,mist) H332
Full text of H-phrases: see section 16

2.2. Label elements
GHS-US labelling
Hazard pictograms (GHS-US) : 

Signal word (GHS-US) : Warning
Hazard statements (GHS-US) : H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled
Precautionary statements (GHS-US) : P261 - Avoid breathing dust, fume
P264 - Wash hands thoroughly after handling
P270 - Do not eat, drink or smoke when using this product
P271 - Use only outdoors or in a well-ventilated area
P280 - Wear eye protection, protective gloves
P301+P312 - If swallowed: Call a POISON CENTER, a doctor if you feel unwell
P302+P352 - If on skin: Wash with plenty of water
P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing
P312 - Call a doctor, a POISON CENTER if you feel unwell
P321 - Specific treatment (see First aid measures on this label)
P330 - Rinse mouth
P362+P364 - Take off contaminated clothing and wash it before reuse
P501 - Dispose of contents/container to an authorised waste collection point

2.3. Other hazards
No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substance
Not applicable
**Thermomelt® HEAT-STIK Markers 175 °F (79, 80 °C), 182 °F (83 °C)**

**Safety Data Sheet**

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according to Canadian Hazardous Products Regulations (HPR)

---

### 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>2’-methoxyacetoacetanilide (CAS No) 92-15-9</td>
<td>75.63 - 84.03 in 175 °C</td>
<td>Acute Tox. 4 (Oral), H302</td>
<td></td>
</tr>
<tr>
<td></td>
<td>78.26 - 86.96 in 182 °C</td>
<td>Acute Tox. 4 (Dermal), H312</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Acute Tox. 4 (Inhalation), H332</td>
<td></td>
</tr>
</tbody>
</table>

---

**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. If you feel unwell, seek medical advice (show the label where possible).

**First-aid measures after inhalation**

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

**First-aid measures after skin contact**

Immediately call a POISON CENTER or doctor/physician. Wash with plenty of soap and water. Wash contaminated clothing before reuse.

**First-aid measures after eye contact**

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

**First-aid measures after ingestion**

Rinse mouth. Call a POISON CENTER or doctor/physician if you feel unwell.

---

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

**Symptoms/injuries after inhalation**: Danger of serious damage to health by prolonged exposure through inhalation. Harmful if inhaled.

**Symptoms/injuries after skin contact**: Repeated exposure to this material can result in absorption through skin causing significant health hazard. Harmful in contact with skin.

**Symptoms/injuries after eye contact**: Direct contact with the eyes is likely to be irritating.

**Symptoms/injuries after ingestion**: Swallowing a small quantity of this material will result in serious health hazard. Harmful if swallowed.

---

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

All treatments should be based on observed signs and symptoms of distress in the patient.

---

**SECTION 5: Firefighting measures**

#### 5.1. Extinguishing media


**Unsuitable extinguishing media**: Do not use a heavy water stream.

---

#### 5.2. Special hazards arising from the substance or mixture

**Fire hazard**: No specific fire or explosion hazard.

**Reactivity**: No dangerous reactions known.

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#### 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 fire/flame resistant/retardant clothing. Wear a self contained breathing apparatus.

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**SECTION 6: Accidental release measures**

#### 6.1. Personal precautions, protective equipment and emergency procedures

**General measures**: Avoid contact with skin and eyes. Avoid creating or spreading dust.

**6.1.1. For non-emergency personnel**

**Protective equipment**: Wear suitable gloves. In case of inadequate ventilation wear respiratory protection.

**Emergency procedures**: Evacuate unnecessary personnel.

---

**6.1.2. For emergency responders**

**Protective equipment**: Wear suitable gloves. Where excessive vapour, mist, or dust may result, use approved respiratory protection equipment.

**Emergency procedures**: Ventilate area.

---

#### 6.2. Environmental precautions

Avoid release to the environment.
Thermomelt® HEAT-STIK Markers 175 °F (79, 80 °C), 182 °F (83 °C)

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according to Canadian Hazardous Products Regulations (HPR)

6.3. Methods and material for containment and cleaning up
For containment: Contain and collect as any solid. Avoid generating dust.
Methods for cleaning up: Take up in non-combustible absorbent material and shove into container for disposal. Minimize generation of dust.

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: Use only outdoors or in a well-ventilated area. Avoid breathing dust, fume.
Hygiene measures: Do not eat, drink or smoke when using this product. 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
Storage conditions: Store in a dry, cool and well-ventilated place.

7.3. Specific end use(s)
Temperature indicator.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

| Thermomelt® HEAT-STIK Markers 175 °F (79, 80 °C), 182 °F (83 °C) | ACGIH | Not applicable |
| | OSHA | Not applicable |

| 2’-methoxyacetoacetanilide (92-15-9) | ACGIH | Not applicable |
| | OSHA | Not applicable |

8.2. Exposure controls
Appropriate engineering controls: Avoid dispersal of dust in the air (ie, clearing dust surfaces with compressed air). Provide local exhaust ventilation of closed transfer systems to minimize exposures.
Personal protective equipment: Avoid all unnecessary exposure.
Hand protection: Wear suitable gloves resistant to chemical penetration. Impermeable protective nitrile gloves.
Eye protection: In case of dust production: protective goggles.
Respiratory protection: Wear approved mask. Use air-purifying respirator equipped with particulate filtering cartridges.
Thermal hazard protection: Flame retardant clothing should be used when handling in molten state.
Other information: Do not eat, drink or smoke when using this product.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties
Physical state: Solid
Appearance: A solid crayon-like marker.
Odour: odourless.
Odour threshold: No data available
pH: No data available
Relative evaporation rate (butyl acetate=1): No data available
Melting point: Varies per product
Freezing point: No data available
Boiling point: No data available
Flash point: 150 - 157 °C
Auto-ignition temperature: No data available
Decomposition temperature: No data available
Flammability (solid, gas): No data available
Thermomelt® HEAT-STIK Markers 175 °F (79, 80 °C), 182 °F (83 °C)

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according to Canadian Hazardous Products Regulations (HPR)

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<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>&gt; 1</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>
<tr>
<td>Viscosity, dynamic</td>
<td>No data available</td>
</tr>
<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
Stable at ambient temperature and under normal conditions of use.

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

10.4. Conditions to avoid
Avoid creating or spreading dust. Contact with incompatible materials.

10.5. Incompatible materials

10.6. Hazardous decomposition products
Burning produces irritating, toxic and noxious fumes.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity: Oral: Harmful if swallowed. Dermal: Harmful in contact with skin. Inhalation: dust, mist: Harmful if inhaled.

Thermomelt® HEAT-STIK Markers 175 °F (79, 80 °C), 182 °F (83 °C)

| ATE CLP (oral)                        | 1883.700 mg/kg bodyweight         |
| ATE CLP (dermal)                      | 1265.000 mg/kg bodyweight         |
| ATE CLP (dust, mist)                  | 1.725 mg/l/4h                     |

2'-methoxyacetoacetanilide (92-15-9)

| LD50 oral rat                          | 1638 mg/kg male; 1635 mg/kg female |
| ATE CLP (oral)                         | 1638.000 mg/kg bodyweight          |
| ATE CLP (dermal)                       | 1100.000 mg/kg bodyweight          |
| ATE CLP (dust, mist)                   | 1.500 mg/l/4h                      |

Skin corrosion/irritation: Not classified
Serious eye damage/irritation: Not classified
Respiratory or skin sensitisation: Not classified
Germ cell mutagenicity: Not classified
Carcinogenicity: Not classified
Reproductive toxicity: Not classified
Specific target organ toxicity (single exposure): Not classified
Specific target organ toxicity (repeated exposure): Not classified
Aspiration hazard: Not classified

Potential adverse human health effects and symptoms

11/03/2015 EN (English) SDS Ref.: LACO1409006 4/7
Thermomelt® HEAT-STIK Markers 175 °F (79, 80 °C), 182 °F (83 °C)

Safety Data Sheet

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according to Canadian Hazardous Products Regulations (HPR)

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Symptoms/injuries after inhalation : Danger of serious damage to health by prolonged exposure through inhalation. Harmful if inhaled.
Symptoms/injuries after skin contact : Repeated exposure to this material can result in absorption through skin causing significant health hazard. Harmful in contact with skin.
Symptoms/injuries after eye contact : Direct contact with the eyes is likely to be irritating.
Symptoms/injuries after ingestion : Swallowing a small quantity of this material will result in serious health hazard. Harmful if swallowed.
Likely routes of exposure : Skin and eye contact; Inhalation

SECTION 12: Ecological information

12.1 Toxicity

<table>
<thead>
<tr>
<th>2’-methoxyacetoacetanilide (92-15-9)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 fish 1</td>
<td>332 mg/l 96 h</td>
</tr>
<tr>
<td>EC50 Daphnia 1</td>
<td>&gt; 85 mg/l 96 h</td>
</tr>
</tbody>
</table>

12.2. Persistence and degradability

<table>
<thead>
<tr>
<th>2’-methoxyacetoacetanilide (92-15-9)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Persistence and degradability</td>
</tr>
<tr>
<td>Biodegradation</td>
</tr>
</tbody>
</table>

12.3. Bioaccumulative potential

<table>
<thead>
<tr>
<th>2’-methoxyacetoacetanilide (92-15-9)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Log Pow</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

<table>
<thead>
<tr>
<th>2’-methoxyacetoacetanilide (92-15-9)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Listed on the United States TSCA (Toxic Substances Control Act) inventory</td>
</tr>
</tbody>
</table>

15.2. International regulations

CANADA

<table>
<thead>
<tr>
<th>2’-methoxyacetoacetanilide (92-15-9)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Listed on the Canadian DSL (Domestic Substances List) inventory.</td>
</tr>
</tbody>
</table>

EU-Regulations

<table>
<thead>
<tr>
<th>2’-methoxyacetoacetanilide (92-15-9)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)</td>
</tr>
</tbody>
</table>
Thermomelt® HEAT-STIK Markers 175 °F (79, 80 °C), 182 °F (83 °C) Safety Data Sheet

National regulations

Thermomelt® HEAT-STIK Markers 175 °F (79, 80 °C), 182 °F (83 °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 2000.

Abbreviations and acronyms:
ACGIH (American Conference of Government Industrial Hygienists).
ATE: Acute Toxicity Estimate.
CAS (Chemical Abstracts Service) number.
CLP: Classification, Labeling, 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.
STEL: Short Term Exposure Limits.
TSCA: Toxic Substances Control Act.
TWA: Time Weight Average.

Other information: None.

NFPA health hazard: 2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention 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>Acute Tox. 4 (Dermal)</th>
<th>Acute toxicity (dermal), Category 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Tox. 4 (Inhalation)</td>
<td>Acute toxicity (inhal.), Category 4</td>
</tr>
<tr>
<td>Acute Tox. 4 (Inhalation:dust,mist)</td>
<td>Acute toxicity (inhalation:dust,mist) Category 4</td>
</tr>
<tr>
<td>Acute Tox. 4 (Oral)</td>
<td>Acute toxicity (oral), Category 4</td>
</tr>
<tr>
<td>H302</td>
<td>Harmful if swallowed</td>
</tr>
<tr>
<td>H312</td>
<td>Harmful in contact with skin</td>
</tr>
<tr>
<td>H332</td>
<td>Harmful if inhaled</td>
</tr>
</tbody>
</table>

SDS Prepared by: The Redstone Group, LLC
6397 Emerald Pkwy.

11/03/2015 EN (English) SDS Ref.: LACO1409006 6/7
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.