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

1.1. Product identifier
Product form : Mixture
Trade name : Thermomelt® HEAT-STIK Marker 300 °F (149, 150 °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
Skin Sens. 1  H317
Carc. 2  H351
Full text of hazard classes and H-statements : see section 16

2.2 Label elements

GHS-US labelling
Hazard pictograms (GHS-US) :

Signal word (GHS-US) : Warning
Hazard statements (GHS-US) : H317 - May cause an allergic skin reaction
H319 - Causes serious eye irritation
H351 - Suspected of causing cancer
Precautionary statements (GHS-US) : P201 - Obtain special instructions before use
P202 - Do not handle until all safety precautions have been read and understood
P261 - Avoid breathing dust
P264 - Wash hands thoroughly after handling
P272 - Contaminated work clothing must not be allowed out of the workplace
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
P308+P313 - If exposed or concerned: Get medical advice/attention
P321 - Specific treatment (see First aid measures on this label)
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention
P337+P313 - If eye irritation persists: Get medical advice/attention
P363 - Wash contaminated clothing before reuse
P405 - Store locked up
P501 - Dispose of contents/container to an authorised waste collection point

2.3 Other hazards
No additional information available
**Thermomelt® HEAT-STIK Marker 300 °F (149, 150 °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 3: Composition/information on ingredients**

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>% (w/w)</th>
<th>GHS-US classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>adipic acid</td>
<td>(CAS No) 124-04-9</td>
<td>90.43</td>
<td>Eye Irrit. 2A, H319</td>
</tr>
<tr>
<td>1-phenylazo-2-naphthol, C.I. Solvent Yellow 14</td>
<td>(CAS No) 842-07-9</td>
<td>0.49 – 0.54</td>
<td>Skin Sens. 1, H317, Muta. 2, H341, Carc. 2, H351, Aquatic Chronic 4, H413</td>
</tr>
</tbody>
</table>

Full text of H-statements: see section 16

**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.

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: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

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

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

Symptoms/injuries: Suspected of causing cancer.

Symptoms/injuries after skin contact: May cause an allergic skin reaction.

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**

Suitable extinguishing media: Use extinguishing media appropriate for surrounding fire.

Unsuitable extinguishing media: None known.

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

Fire hazard: Burning produces irritating, toxic and noxious fumes.

Explosion hazard: Product is not explosive.

Reactivity: No dangerous reactions known.

**5.3. Advice for firefighters**

Firefighting instructions: Do not allow run-off from fire fighting to enter drains or water courses.

Protection during firefighting: 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 contact with skin, eyes and clothing. Avoid creating or spreading dust.

**6.1.1. For non-emergency personnel**

Protective equipment: Chemical goggles or safety glasses. Wear suitable gloves.

Emergency procedures: Evacuate unnecessary personnel.

**6.1.2. For emergency responders**

Protective equipment: Chemical goggles or safety glasses. Wear suitable gloves.

Emergency procedures: Ventilate area. Stop leak if safe to do so.

**6.2. Environmental precautions**

Avoid release to the environment.
6.3. Methods and material for containment and cleaning up
For containment: Contain and collect as any solid.
Methods for cleaning up: Minimize generation of dust.

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

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Precautions for safe handling: Avoid breathing dust. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid contact with skin, eyes and clothing.
Hygiene measures: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities
Storage conditions: Keep container closed when not in use.
Heat and ignition sources: Keep away from heat, sparks and flame.
Prohibitions on mixed storage: Incompatible materials.
Storage area: Store in dry, cool, well-ventilated area.

7.3. Specific end use(s)
Temperature indicator. Temperature indicator.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

<table>
<thead>
<tr>
<th>Value</th>
<th>Measurand</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGIH</td>
<td>ThermoMelt® HEAT-STIK Marker 300 °F (149, 150 °C)</td>
<td></td>
</tr>
<tr>
<td>ACGIH</td>
<td>Not applicable</td>
<td></td>
</tr>
<tr>
<td>OSHA</td>
<td>Not applicable</td>
<td></td>
</tr>
<tr>
<td>Adipic acid (124-04-9)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACGIH</td>
<td>ACGIH TWA (mg/m³)</td>
<td>5 mg/m³</td>
</tr>
<tr>
<td>ACGIH</td>
<td>Remark (ACGIH)</td>
<td>URT irr; ANS impair</td>
</tr>
<tr>
<td>OSHA</td>
<td>Not applicable</td>
<td></td>
</tr>
<tr>
<td>Canada (Quebec)</td>
<td>VEMP (mg/m³)</td>
<td>5 mg/m³</td>
</tr>
</tbody>
</table>

8.2. Exposure controls

Appropriate engineering controls: Ensure good ventilation of the work station.
Personal protective equipment: Avoid all unnecessary exposure.
Hand protection: Use rubber gloves.
Eye protection: In case of dust production: protective goggles.
Respiratory protection: None under normal use.
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
Colour: No data available
Odour: No data available
Odour threshold: No data available
pH: No data available
Relative evaporation rate (butyl acetate=1): No data available
Thermomelt® HEAT-STIK Marker 300 °F (149, 150 °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)

22/12/2015 EN (English) SDS Ref.: LACO1512008 4/7

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<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>
<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 under normal conditions.

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

10.4. Conditions to avoid
Heat.

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 : Not classified

<table>
<thead>
<tr>
<th>Compound</th>
<th>Toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>adipic acid (124-04-9)</td>
<td>5560 mg/kg</td>
</tr>
<tr>
<td></td>
<td>LD50 oral rat</td>
</tr>
<tr>
<td></td>
<td>LD50 dermal rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation rat (mg/l)</td>
</tr>
<tr>
<td></td>
<td>ATE CLP (oral)</td>
</tr>
</tbody>
</table>

Skin corrosion/irritation : Not classified
Serious eye damage/irritation : Causes serious eye irritation.
Respiratory or skin sensitisation : May cause an allergic skin reaction.
Germ cell mutagenicity : Not classified
Carcinogenicity : Suspected of causing cancer.

Reproductive toxicity : Not classified
Specific target organ toxicity (single exposure) : Not classified
Specific target organ toxicity (repeated exposure) : Not classified

<table>
<thead>
<tr>
<th>Compound</th>
<th>Toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>adipic acid (124-04-9)</td>
<td>NOAEL (oral, rat, 90 days)</td>
</tr>
</tbody>
</table>

22/12/2015 EN (English) SDS Ref.: LACO1512008 4/7
Thermomelt® HEAT-STIK Marker 300 °F (149, 150 °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)

Aspiration hazard: Not classified

Potential adverse human health effects and symptoms:
- Symptoms/injuries after skin contact: May cause an allergic skin reaction.
- 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

<table>
<thead>
<tr>
<th>Substance</th>
<th>LC50 fish 1</th>
<th>EC50 Daphnia 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>adipic acid (124-04-9)</td>
<td>&gt;= 1000 mg/l 96 h</td>
<td>46 mg/l 48 h</td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability

<table>
<thead>
<tr>
<th>Substance</th>
<th>Persistence and degradability</th>
<th>Biodegradation</th>
</tr>
</thead>
<tbody>
<tr>
<td>adipic acid (124-04-9)</td>
<td>Readily biodegradable.</td>
<td>90 % 5 d</td>
</tr>
</tbody>
</table>

12.3 Bioaccumulative potential

<table>
<thead>
<tr>
<th>Substance</th>
<th>BCF fish 1</th>
<th>Log Pow</th>
</tr>
</thead>
<tbody>
<tr>
<td>adipic acid (124-04-9)</td>
<td>3.162</td>
<td>0.093</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.

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 hazard class(es) (ADR): 

Transport by sea
Transport hazard class(es) (IMDG): 

Air transport
Transport hazard class(es) (IATA): 

SECTION 15: Regulatory information

15.1 US Federal regulations

<table>
<thead>
<tr>
<th>Substance</th>
<th>Listed on the United States TSCA (Toxic Substances Control Act) inventory</th>
</tr>
</thead>
<tbody>
<tr>
<td>adipic acid (124-04-9)</td>
<td>CERCLA RQ 5000 lb</td>
</tr>
</tbody>
</table>

1-phenylazo-2-naphthol, C.I. Solvent Yellow 14 (842-07-9)

Listed on the United States TSCA (Toxic Substances Control Act) inventory
Subject to reporting requirements of United States SARA Section 313
EPA TSCA Regulatory Flag: T - T - indicates a substance that is the subject of a Section 4 test rule under TSCA

15.2 International regulations

CANADA

<table>
<thead>
<tr>
<th>Substance</th>
<th>Listed on the Canadian DSL (Domestic Substances List) inventory</th>
</tr>
</thead>
<tbody>
<tr>
<td>adipic acid (124-04-9)</td>
<td></td>
</tr>
</tbody>
</table>

1-phenylazo-2-naphthol, C.I. Solvent Yellow 14 (842-07-9)

Listed on the Canadian DSL (Domestic Substances List) inventory
Thermomelt® HEAT-STIK Marker 300 °F (149, 150 °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)

EU-Regulations

<table>
<thead>
<tr>
<th>Substance</th>
<th>124-04-9</th>
</tr>
</thead>
<tbody>
<tr>
<td>adipic acid</td>
<td>Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Substance</th>
<th>842-07-9</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-phenylazo-2-naphthol, C.I. Solvent Yellow 14</td>
<td>Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)</td>
</tr>
</tbody>
</table>

National regulations

Thermomelt® HEAT-STIK Marker 300 °F (149, 150 °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

<table>
<thead>
<tr>
<th>Substance</th>
<th>842-07-9</th>
</tr>
</thead>
<tbody>
<tr>
<td>adipic acid</td>
<td>Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>State</th>
<th>Regulation</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. - California</td>
<td>Proposition 65 - Carcinogens List</td>
</tr>
<tr>
<td>U.S. - California</td>
<td>Proposition 65 - Developmental Toxicity</td>
</tr>
<tr>
<td>U.S. - California</td>
<td>Proposition 65 - Reproductive Toxicity - Female</td>
</tr>
<tr>
<td>U.S. - California</td>
<td>Proposition 65 - Reproductive Toxicity - Male</td>
</tr>
<tr>
<td>U.S. - Massachusetts</td>
<td>Right To Know List</td>
</tr>
<tr>
<td>U.S. - New Jersey</td>
<td>Right to Know Hazardous Substance List</td>
</tr>
<tr>
<td>U.S. - Pennsylvania</td>
<td>RTK (Right to Know) List</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Substance</th>
<th>842-07-9</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-phenylazo-2-naphthol, C.I. Solvent Yellow 14</td>
<td>Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>State</th>
<th>Regulation</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. - New Jersey</td>
<td>Right to Know Hazardous Substance List</td>
</tr>
<tr>
<td>U.S. - New York</td>
<td>Right to Know List of Hazardous Chemicals</td>
</tr>
</tbody>
</table>

SECTION 16: Other information

Data sources: ACGIH (American Conference of Governmental 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-statements:
H317: May cause an allergic skin reaction
H319: Causes serious eye irritation
Thermomelt® HEAT-STIK Marker 300 °F (149, 150 °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>H341</th>
<th>Suspected of causing genetic defects</th>
</tr>
</thead>
<tbody>
<tr>
<td>H351</td>
<td>Suspected of causing cancer</td>
</tr>
<tr>
<td>H413</td>
<td>May cause long lasting harmful effects to aquatic life</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.