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

1.1. Product identifier
Product form: Mixture
Trade name: Tempilstik® 150 °F (66 °C), 158 °F (70 °C), 163 °F (73 °C), 167 °F (75 °C), 169 °F (76 °C), 175 °F (79 °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
STOT RE 2 H373
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):
H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled
H373 - May cause damage to organs through prolonged or repeated exposure
Precautionary statements (GHS-US):
P260 - Do not breathe 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 protective gloves
P301+P312 - If swallowed: Call a doctor, a POISON CENTER 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 POISON CENTER, a doctor if you feel unwell
P314 - Get medical advice/attention 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
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>acetoacetanilide</td>
<td>(CAS No) 102-01-2</td>
<td>72.15 – 72.52 °F, 75.63 – 76.02 °F, 87.74 – 88.18 °F, 84.23 – 85.65 °F, 88.45 – 89.0 °F, 82.01 – 82.42 °F</td>
<td>Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 STOT RE 2, H373</td>
</tr>
<tr>
<td>butyl 4-hydroxybenzoate</td>
<td>(CAS No) 94-26-8</td>
<td>5.62 – 5.67 °F</td>
<td>Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335</td>
</tr>
<tr>
<td>Cobalt compound</td>
<td>(CAS No) trade secret</td>
<td>1.56 °F</td>
<td>Comb. Dust, H232 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335</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. 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. 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: In case of contact, immediately flush eyes with plenty of water.
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: May cause damage to organs through prolonged or repeated exposure.
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 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
Treat symptomatically and supportively.

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.
Tempilstik® 150 °F (66 °C), 158 °F (70 °C), 163 °F (73 °C), 167 °F (75 °C), 169 °F (76 °C), 175 °F (79 °C)

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
General measures: Always approach spills or fires from upwind/uphill. Avoid creating or spreading dust. Avoid contact with skin and eyes.

6.1.1. For non-emergency personnel
Protective equipment: Wear suitable gloves resistant to chemical penetration. In case of inadequate ventilation wear respiratory protection.
Emergency procedures: Evacuate unnecessary personnel.

6.1.2. For emergency responders
Protective equipment: Wear suitable gloves resistant to chemical penetration. Where excessive dust may result, use approved respiratory protection equipment.
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: 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: Keep container tightly closed.
Incompatible products: Strong oxidizers. Strong bases.
Prohibitions on mixed storage: Keep away from incompatible materials.
Storage area: Store in dry, cool, well-ventilated area.

7.3. Specific end use(s)
Temperature indicator.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

<table>
<thead>
<tr>
<th>Substance</th>
<th>ACGIH</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tempilstik® 150 °F (66 °C), 158 °F (70 °C), 163 °F (73 °C), 167 °F (75 °C), 169 °F (76 °C), 175 °F (79 °C)</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
<tr>
<td>acetoacetanilide (102-01-2)</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
<tr>
<td>butyl 4-hydroxybenzoate (94-26-8)</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Cobalt compound (trade secret)</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>
8.2. Exposure controls

Appropriate engineering controls: Avoid dispersal of dust in the air (ie, clearing dust surfaces with compressed air). Ensure good ventilation of the work station.

Personal protective equipment: Avoid all unnecessary exposure.

Hand protection: Wear dust impervious gloves.

Eye protection: In case of dust production: protective goggles.

Respiratory protection: Use air-purifying respirator equipped with particulate filtering cartridges. In case of inadequate ventilation wear respiratory protection.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Solid</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 (butyl acetate=1)</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>
<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
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:**

Tempilstik® 150 °F (66 °C), 158 °F (70 °C), 163 °F (73 °C), 167 °F (75 °C), 169 °F (76 °C), 175 °F (79 °C)

<table>
<thead>
<tr>
<th>Substance</th>
<th>Oral CLP (mg/kg bodyweight)</th>
<th>Dermal CLP (mg/kg bodyweight)</th>
<th>Dust/Mist CLP (mg/l/4h)</th>
</tr>
</thead>
<tbody>
<tr>
<td>acetoacetanilide (102-01-2)</td>
<td>ATE CLP (oral) 1278.978</td>
<td>ATE CLP (dermal) 1243.922</td>
<td>ATE CLP (dust,mist) 1.696</td>
</tr>
<tr>
<td>butyl 4-hydroxybenzoate (94-26-8)</td>
<td>LD50 oral rat 1131</td>
<td>LD50 oral rat 1100.000</td>
<td>LD50 oral rat 13200</td>
</tr>
</tbody>
</table>

**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):**

May cause damage to organs through prolonged or repeated exposure.

**NOAEL (oral, rats, 90 days):**

12 mg/kg bodyweight/day 28 days

**Additional information:**

Affected organs: Blood

**Route of exposure:** Oral

**Aspiration hazard:**

Not classified

**Potential adverse human health effects and symptoms:**

**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 ingestion:**

Swallowing a small quantity of this material will result in serious health hazard. Harmful if swallowed.

**Likely routes of exposure:** Inhalation; Skin and eye contact

### SECTION 12: Ecological information

**12.1 Toxicity**

**acetoacetanilide (102-01-2)**

<table>
<thead>
<tr>
<th>Endpoint</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 fish 1</td>
<td>242 (242 - 332) mg/l 96 hours, Brachydanio rerio</td>
</tr>
<tr>
<td>ErC50 (algae)</td>
<td>318 mg/l Selenastrum capricornutum , 72 hours</td>
</tr>
<tr>
<td>ErC50 (other aquatic plants)</td>
<td>500 mg/l 3 hours</td>
</tr>
<tr>
<td>NOEC chronic algae</td>
<td>180 mg/l</td>
</tr>
</tbody>
</table>

**12.2. Persistence and degradability**

**acetoacetanilide (102-01-2)**

- **Persistence and degradability:** Readily biodegradable.
- **Biodegradation:** 97 % degraded after 6 days

**12.3. Bioaccumulative potential**

**acetoacetanilide (102-01-2)**

**Log Pow:** 0.76
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 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

- **acetoacetanilide (102-01-2)**
  - Listed on the United States TSCA (Toxic Substances Control Act) inventory

- **butyl 4-hydroxybenzoate (94-26-8)**
  - Listed on the United States TSCA (Toxic Substances Control Act) inventory

#### 15.2. International regulations

**CANADA**

- **acetoacetanilide (102-01-2)**
  - Listed on the Canadian DSL (Domestic Substances List) inventory.

- **butyl 4-hydroxybenzoate (94-26-8)**
  - Listed on the Canadian DSL (Domestic Substances List) inventory.

**EU-Regulations**

- **acetoacetanilide (102-01-2)**
  - Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

- **butyl 4-hydroxybenzoate (94-26-8)**
  - Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

**National regulations**

*Tempilstik® 150 °F (66 °C), 158 °F (70 °C), 163 °F (73 °C), 167 °F (75 °C), 169 °F (76 °C), 175 °F (79 °C)*

All components are listed on the EEC inventory European Inventory of Existing Commercial Chemical Substances (EINECS).

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: Added. Product.
Tempilstik® 150 °F (66 °C), 158 °F (70 °C), 163 °F (73 °C), 167 °F (75 °C), 169 °F (76 °C), 175 °F (79 °C)

Safety Data Sheet

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, 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.
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-statements:

<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>Comb. Dust</td>
<td>Combustible Dust</td>
</tr>
<tr>
<td>Eye Irrit. 2A</td>
<td>Serious eye damage/eye irritation, Category 2A</td>
</tr>
<tr>
<td>Skin Irrit. 2</td>
<td>Skin corrosion/irritation, Category 2</td>
</tr>
<tr>
<td>STOT RE 2</td>
<td>Specific target organ toxicity — Repeated exposure, Category 2</td>
</tr>
<tr>
<td>STOT SE 3</td>
<td>Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation</td>
</tr>
<tr>
<td>H232</td>
<td>May form combustible dust concentrations in air</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>H315</td>
<td>Causes skin irritation</td>
</tr>
<tr>
<td>H319</td>
<td>Causes serious eye irritation</td>
</tr>
<tr>
<td>H332</td>
<td>Harmful if inhaled</td>
</tr>
<tr>
<td>H335</td>
<td>May cause respiratory irritation</td>
</tr>
<tr>
<td>H373</td>
<td>May cause damage to organs through prolonged or repeated exposure</td>
</tr>
</tbody>
</table>

SDS Prepared by: The Redstone Group, LLC
6077 Frantz Rd.
Suite 206
Dublin, OH USA 43016

30/10/2015 EN (English) SDS Ref.: LACO1504003
Tempilstik® 150 °F (66 °C), 158 °F (70 °C), 163 °F (73 °C), 167 °F (75 °C), 169 °F (76 °C), 175 °F (79 °C)

Safety Data Sheet
according to Federal Register / Vol. 77, No. 56 / Monday, March 26, 2012 / Rules and Regulations
according to Canadian Hazardous Products Regulations (HPR)

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.