

# Thermomelt® HEAT-STIK Markers 100 °F (38 °C), 488 °F (250, 253 °C), 500 °F (260 °C), 150 °F (65, 66 °C), 2100 °F (1149 °C)

**LA-CO Industries, Inc.**

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations  
according to Canadian Hazardous Products Regulations (HPR)  
Date of issue: 03/11/2015 Revision date: 03/25/2015  
Version: 1.1

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

### 1.1. Product identifier

Product form : Mixture  
Trade name : Thermomelt® HEAT-STIK Markers 100 °F (38 °C), 488 °F (250, 253 °C), 500 °F (260 °C), 150 °F (65, 66 °C), 2100 °F (1149 °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

Emergency number : 24-hour emergency: CHEMTREC- U.S. : 1-800-424-9300 International: +1-703-527-3887

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

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

Skin Irrit. 2 H315  
Eye Irrit. 2A H319  
STOT SE 3 H335

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) :

H315 - Causes skin irritation  
H319 - Causes serious eye irritation  
H335 - May cause respiratory irritation

Precautionary statements (GHS-US) :

P261 - Avoid breathing dust, fume  
P264 - Wash hands thoroughly after handling  
P271 - Use only outdoors or in a well-ventilated area  
P280 - Wear eye protection, protective gloves  
P302+P352 - If on skin: Wash with plenty of water  
P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing  
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
P312 - Call a doctor if you feel unwell  
P321 - Specific treatment (see First aid measures on this label)  
P332+P313 - If skin irritation occurs: Get medical advice/attention  
P337+P313 - If eye irritation persists: Get medical advice/attention  
P362 - Take off contaminated clothing and wash before reuse  
P403+P233 - Store in a well-ventilated place. Keep container tightly closed  
P405 - Store locked up  
P501 - Dispose of contents/container to an approved waste disposal plant

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### 2.3. Other hazards

No additional information available

## SECTION 3: Composition/information on ingredients

### 3.1. Substance

Not applicable

### 3.2. Mixture

Name	Product identifier	% (w/w)	GHS-US classification
phenyl salicylate	(CAS No) 118-55-8	81.44 – 82.26 : 100 °F	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335
butyl 4-hydroxybenzoate	(CAS No) 94-26-8	77.23 – 78.01 : 150 °F	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335
5-nitroisophthalic acid	(CAS No) 618-88-2	73.53 : 488 °F 62.5 : 500 °F	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335
diboron calcium tetraoxide	(CAS No) 13701-64-9	60.24 : 2100 °F	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335
myristic acid	(CAS No) 544-63-8	8.06 : 100 °F	Eye Irrit. 2A, H319

Full text of H-phrases: 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. 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	: Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention.
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. 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	: May cause respiratory irritation.
Symptoms/injuries after skin contact	: Causes skin irritation.
Symptoms/injuries after eye contact	: Causes serious eye irritation.

### 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

Suitable extinguishing media	: Carbon dioxide. Dry powder. Foam. Water spray. Sand.
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.

### 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/flammable 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 creating or spreading dust. Avoid contact with skin and eyes.

##### 6.1.1. For non-emergency personnel

Protective equipment : Where excessive dust may result, use approved respiratory protection equipment. Wear suitable gloves. Chemical goggles or safety glasses.

Emergency procedures : Evacuate unnecessary personnel.

##### 6.1.2. For emergency responders

Protective equipment : Where excessive dust may result, use approved respiratory protection equipment. Wear suitable gloves. Chemical goggles or safety glasses.

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 : 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 : Avoid breathing dust, fume. Use only outdoors or in a well-ventilated area.

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

Storage conditions : Keep container closed when not in use. Store in a dry, cool and well-ventilated place.

Incompatible products : Strong acids. Strong oxidizers. Strong bases.

#### 7.3. Specific end use(s)

Temperature indicator.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

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ACGIH	Not applicable
OSHA	Not applicable
myristic acid (544-63-8)	
ACGIH	Not applicable
OSHA	Not applicable
5-nitroisophthalic acid (618-88-2)	
ACGIH	Not applicable
OSHA	Not applicable
phenyl salicylate (118-55-8)	
ACGIH	Not applicable
OSHA	Not applicable
diboron calcium tetraoxide (13701-64-9)	
ACGIH	Not applicable
OSHA	Not applicable

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butyl 4-hydroxybenzoate (94-26-8)	
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). Either local exhaust or general room ventilation is usually required.
Personal protective equipment	: Avoid all unnecessary exposure.
Hand protection	: It is a good industrial hygiene practice to minimize skin contact. If dust is formed: Use rubber gloves.
Eye protection	: In case of dust production: protective goggles.
Skin and body protection	: Wear suitable protective clothing. Impervious clothing.
Respiratory protection	: Where excessive dust may result, use approved respiratory protection equipment. Use air-purifying respirator equipped with particulate filtering cartridges.
Thermal hazard protection	: Flame retardant clothing should be used when handling in molten state.

## 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	: light colored. Green. Purple. Off-white. white.
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	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: > 1
Solubility	: insoluble in water.
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

### 9.2. Other information

VOC content	: 0 %
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## 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.

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### 10.4. Conditions to avoid

Avoid creating or spreading dust. Contact with incompatible materials.

### 10.5. Incompatible materials

Strong oxidizing agents. Strong bases. Strong acids.

### 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

myristic acid (544-63-8)	
LD50 oral rat	> 10000 mg/kg
5-nitroisophthalic acid (618-88-2)	
LD50 oral rat	5000 mg/kg 14 d
LC50 inhalation rat (mg/l)	> 11370 mg/m³ 3 h
ATE CLP (oral)	5000.000 mg/kg bodyweight
phenyl salicylate (118-55-8)	
LD50 oral rat	3000 mg/kg
ATE CLP (oral)	3000.000 mg/kg bodyweight
butyl 4-hydroxybenzoate (94-26-8)	
LD50 oral rat	13200 mg/kg
ATE CLP (oral)	13200.000 mg/kg bodyweight

**Skin corrosion/irritation** : Causes skin irritation.

**Serious eye damage/irritation** : Causes serious eye irritation.

**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 respiratory irritation.

**Specific target organ toxicity (repeated exposure)** : Not classified

**Aspiration hazard** : Not classified

### Potential adverse human health effects and symptoms

Symptoms/injuries after inhalation : May cause respiratory irritation.

Symptoms/injuries after skin contact : Causes skin irritation.

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

Likely routes of exposure : Skin and eye contact; Inhalation

## SECTION 12: Ecological information

### 12.1 Toxicity

myristic acid (544-63-8)	
LC50 fish 1	> 10000 mg/l 48 h
EC50 Daphnia 1	> 27 mg/l 16 h
5-nitroisophthalic acid (618-88-2)	
LC50 fish 1	3861.279 mg/l 96 h
EC50 Daphnia 1	2044.325 mg/l 48 h

### 12.2. Persistence and degradability

myristic acid (544-63-8)	
Persistence and degradability	Readily biodegradable.
Biodegradation	99 % 15 d
5-nitroisophthalic acid (618-88-2)	
Biodegradation	50 % 38 d

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### phenyl salicylate (118-55-8)

Persistence and degradability	Moderately biodegradable.
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#### 12.3. Bioaccumulative potential

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

Log Pow	5.2 (5.2 - 6.11)
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### 5-nitroisophthalic acid (618-88-2)

BCF fish 1	3.2
Log Pow	1.5735
Bioaccumulative potential	Not expected to bioaccumulate.

### phenyl salicylate (118-55-8)

Log Pow	3.82
Bioaccumulative potential	Not established.

#### 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

#### 5-nitroisophthalic acid (618-88-2)

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

#### phenyl salicylate (118-55-8)

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

#### diboron calcium tetraoxide (13701-64-9)

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

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

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

#### 5-nitroisophthalic acid (618-88-2)

Listed on the Canadian NDSL (Non-Domestic Substances List)

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### phenyl salicylate (118-55-8)

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

### butyl 4-hydroxybenzoate (94-26-8)

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

### diboron calcium tetraoxide (13701-64-9)

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)

### diboron calcium tetraoxide (13701-64-9)

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

### 5-nitroisophthalic acid (618-88-2)

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

### phenyl salicylate (118-55-8)

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

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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

: Added. Product.

Data sources

: ACGIH 2000.

Canadian Centre for Occupational Health and Safety. Accessed at:  
[http://www.ccohs.ca/oshanswers/legisl/whmis\\_classifi.html](http://www.ccohs.ca/oshanswers/legisl/whmis_classifi.html).

ESIS (European chemical Substances Information System; accessed at:  
<http://esis.jrc.ec.europa.eu/index.php?PGM=cla>.

European Chemicals Agency (ECHA) Registered Substances list. Accessed at  
<http://echa.europa.eu/>. Krister Forsberg and S.Z. Mansdorf, "Quick Selection Guide to Chemical Protective Clothing", Fifth Edition.

National Fire Protection Association; Fire Protection Guide to Hazardous Materials; 10th edition.

OSHA 29CFR 1910.1200 Hazard Communication Standard.

REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

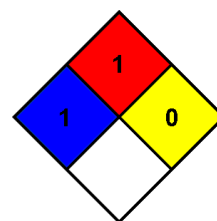
TSCA Chemical Substance Inventory. Accessed at  
<http://www.epa.gov/oppt/existingchemicals/pubs/tscainventory/howto.html>.

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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. PBT: Persistent, Bioaccumulative, Toxic. STEL: Short Term Exposure Limits. TSCA: Toxic Substances Control Act. TWA: Time Weight Average.
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:

Eye Irrit. 2A	Serious eye damage/eye irritation, Category 2A
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
H315	Causes skin irritation
H319	Causes serious eye irritation
H335	May cause respiratory irritation

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### 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*