

# Thermomelt® HEAT-STIK Marker 575 °F (300, 302 °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: 03/10/2015  
Version: 1.0

## 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 575 °F (300, 302 °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

Acute Tox. 4 (Oral)	H302
Acute Tox. 3 (Dermal)	H311
Acute Tox. 4 (Inhalation:dust,mist)	H332
Skin Irrit. 2	H315
Eye Irrit. 2A	H319
Aquatic Chronic 3	H412

Full text of H-phrases: see section 16

### 2.2. Label elements

#### GHS-US labelling

Hazard pictograms (GHS-US) :



GHS06

GHS07

Signal word (GHS-US) :

Danger

Hazard statements (GHS-US) :

H302+H332 - Harmful if swallowed or if inhaled  
H311 - Toxic in contact with skin  
H315 - Causes skin irritation  
H319 - Causes serious eye irritation  
H412 - Harmful to aquatic life with long lasting effects

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  
P273 - Avoid release to the environment  
P280 - Wear eye protection, protective clothing, 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  
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 POISON CENTER, a doctor if you feel unwell  
P321 - Specific treatment (see First aid measures on this label)  
P330 - Rinse mouth  
P332+P313 - If skin irritation occurs: Get medical advice/attention

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P337+P313 - If eye irritation persists: Get medical advice/attention  
P361 - Take off immediately all contaminated clothing  
P362 - Take off contaminated clothing and wash before reuse  
P363 - Wash contaminated clothing before reuse  
P405 - Store locked up  
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation

### 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
benzimidazole-2-thiol	(CAS No) 583-39-1	70.18	Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Aquatic Chronic 3, H412
adipic acid	(CAS No) 124-04-9	10.11	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 : Immediately call a POISON CENTER or doctor/physician. Remove/Take off immediately all contaminated clothing. Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Get immediate 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 : 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. Toxic in contact with skin. Causes skin irritation.

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

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

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/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 : Chemical goggles or safety glasses. protective gloves. In case of inadequate ventilation wear respiratory protection.

Emergency procedures : Evacuate unnecessary personnel.

##### 6.1.2. For emergency responders

Protective equipment : Chemical goggles or safety glasses. Use neoprene or rubber 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.

#### 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. Keep container closed when not in use.

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

Thermomelt® HEAT-STIK Marker 575 °F (300, 302 °C)		
ACGIH	Not applicable	
OSHA	Not applicable	
adipic acid (124-04-9)		
ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup>
ACGIH	Remark (ACGIH)	URT irr; ANS impair
OSHA	Not applicable	
Canada (Quebec)	VEMP (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup>
benzimidazole-2-thiol (583-39-1)		
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 : Wear suitable gloves resistant to chemical penetration. Dust impervious gloves.

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Eye protection	: Chemical goggles or safety glasses.
Skin and body protection	: Wear suitable protective clothing. Impervious clothing.
Respiratory protection	: Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. 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.
Colour	: Gray.
Odour	: odourless.
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Melting point	: 302 °C / 575 °F
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	: No data available
Solubility	: No data available
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.

#### 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. Carbon oxides. Nitrogen oxides.

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

Acute toxicity	: Oral: Harmful if swallowed. Dermal: Toxic in contact with skin. Inhalation:dust,mist: Harmful if inhaled.
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ATE CLP (oral)	310.650 mg/kg bodyweight
ATE CLP (dermal)	712.500 mg/kg bodyweight
ATE CLP (dust,mist)	2.138 mg/l/4h

adipic acid (124-04-9)	
LD50 oral rat	5560 mg/kg
LD50 dermal rabbit	7940 ml/kg
LC50 inhalation rat (mg/l)	> 7.7 mg/l/4h
ATE CLP (oral)	5560.000 mg/kg bodyweight

benzimidazole-2-thiol (583-39-1)	
LD50 oral rat	218 mg/kg
LD50 dermal rabbit	500 mg/kg
LC50 inhalation rat (ppm)	14.22252 ppm/4h
ATE CLP (oral)	218.000 mg/kg bodyweight
ATE CLP (dermal)	500.000 mg/kg bodyweight
ATE CLP (gases)	14.223 ppmv/4h
ATE CLP (vapours)	11.000 mg/l/4h
ATE CLP (dust,mist)	1.500 mg/l/4h

<b>Skin corrosion/irritation</b>	: Causes skin irritation.
<b>Serious eye damage/irritation</b>	: Causes serious eye irritation.
<b>Respiratory or skin sensitisation</b>	: Not classified
<b>Germ cell mutagenicity</b>	: Not classified
<b>Carcinogenicity</b>	: Not classified
<b>Reproductive toxicity</b>	: Not classified
<b>Specific target organ toxicity (single exposure)</b>	: Not classified
<b>Specific target organ toxicity (repeated exposure)</b>	: Not classified

adipic acid (124-04-9)	
NOAEL (oral, rat, 90 days)	750 mg/kg bodyweight/day

**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. Toxic in contact with skin. Causes skin irritation.
Symptoms/injuries after eye contact	: Causes serious eye irritation.
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

Ecology - water : Harmful to aquatic life with long lasting effects.

adipic acid (124-04-9)	
LC50 fish 1	>= 1000 mg/l 96 h
EC50 Daphnia 1	46 mg/l 48 h

benzimidazole-2-thiol (583-39-1)	
LC50 fish 1	161 mg/l 48 h
EC50 Daphnia 1	14.16675 mg/l 48 h

### 12.2. Persistence and degradability

Thermomelt® HEAT-STIK Marker 575 °F (300, 302 °C)	
Persistence and degradability	May cause long-term adverse effects in the environment.

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adipic acid (124-04-9)	
Persistence and degradability	Readily biodegradable.
Biodegradation	90 % 5 d

benzimidazole-2-thiol (583-39-1)	
Persistence and degradability	Readily biodegradable.

### 12.3. Bioaccumulative potential

adipic acid (124-04-9)	
BCF fish 1	3.162
Log Pow	0.093

benzimidazole-2-thiol (583-39-1)	
Log Pow	1.45

### 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 : Hazardous waste due to toxicity. Avoid release to the environment.

## SECTION 14: Transport information

In accordance with DOT and TDG

Transport document description : UN2811 Toxic solids, organic, n.o.s. (benzimidazole-2-thiol), 6.1, III  
UN-No.(DOT) : UN2811  
Proper Shipping Name (DOT) : Toxic solids, organic, n.o.s. (benzimidazole-2-thiol)  
Department of Transportation (DOT) Hazard Classes : 6.1 - Poison inhalation hazard  
Packing group (DOT) : III - Minor Danger

### ADR

Transport document description : UN 2811 TOXIC SOLID, ORGANIC, N.O.S. (benzimidazole-2-thiol), 6.1, III, (E)  
Proper Shipping Name (ADR) : TOXIC SOLID, ORGANIC, N.O.S. (benzimidazole-2-thiol)  
Packing group (ADR) : III  
Class (ADR) : 6.1 - Toxic substances

### Transport by sea

UN-No. (IMDG) : UN 2811  
Proper Shipping Name (IMDG) : TOXIC SOLID, ORGANIC, N.O.S. (benzimidazole-2-thiol)  
Class (IMDG) : 6.1 - Toxic substances  
Packing group (IMDG) : III

### Air transport

UN-No.(IATA) : UN 2811  
Proper Shipping Name (IATA) : TOXIC SOLID, ORGANIC, N.O.S. (benzimidazole-2-thiol)  
Class (IATA) : 6 -  
Packing group (IATA) : III

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

adipic acid (124-04-9)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
RQ (Reportable quantity, section 304 of EPA's List of Lists)	5000 lb

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### benzimidazole-2-thiol (583-39-1)

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

## 15.2. International regulations

### CANADA

#### adipic acid (124-04-9)

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

#### benzimidazole-2-thiol (583-39-1)

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

## EU-Regulations

#### adipic acid (124-04-9)

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

#### benzimidazole-2-thiol (583-39-1)

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

## National regulations

### Thermomelt® HEAT-STIK Marker 575 °F (300, 302 °C)

All ingredients are listed in the Toxic Substances Control Act (TSCA).

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

### adipic acid (124-04-9)

U.S. - Massachusetts - Right To Know List

U.S. - New Jersey - Right to Know Hazardous Substance List

U.S. - Pennsylvania - RTK (Right to Know) List

## SECTION 16: Other information

Indication of changes

: Original Document.

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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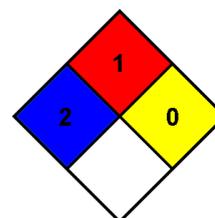
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Abbreviations and acronyms : ACGIH (American Conference of Government Industrial Hygienists).  
ATE: Acute Toxicity Estimate.  
CAS (Chemical Abstracts Service) number.  
CLP: Classification, Labelling, Packaging.  
EC50: Environmental Concentration 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 : 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:

Acute Tox. 3 (Dermal)	Acute toxicity (dermal), Category 3
Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Chronic 3	Hazardous to the aquatic environment — Chronic Hazard, Category 3
Eye Irrit. 2A	Serious eye damage/eye irritation, Category 2A
Skin Irrit. 2	Skin corrosion/irritation, Category 2
H301	Toxic if swallowed
H302	Harmful if swallowed
H311	Toxic in contact with skin
H315	Causes skin irritation
H319	Causes serious eye irritation
H332	Harmful if inhaled
H412	Harmful to aquatic life with long lasting effects

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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*