Thermomelt® HEAT-STIK Markers 206 °F (97 °C), 550 °F (288 °C), 213 °F (100, 101 °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: 03/11/2015Revision date: 03/24/2015
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 206 °F (97 °C), 550 °F (288 °C), 213 °F (100, 101 °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

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

Precautionary statements (GHS-US) : P264 - Wash hands thoroughly after handling
P280 - Wear eye protection, protective gloves
P302+P352 - If on skin: Wash with plenty of water
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
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

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
azelaic acid	(CAS No) 123-99-9	74.89 – 85.11 : 206 °F 79.23 – 90.03 : 213 °F	Skin Irrit. 2, H315 Eye Irrit. 2A, H319
5-nitroisophthalic acid	(CAS No) 618-88-2	11.09 : 550 °F	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335
undecanedioic acid	(CAS No) 1852-04-6	4.85 – 5.11 : 206 °F 5.13 – 5.4 : 213 °F	Skin Irrit. 2, H315 Eye Irrit. 2A, H319
suberic acid	(CAS No) 505-48-6	0.77 – 1.11 : 206 °F 0.81 – 1.17 : 213 °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.

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

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. Wear suitable gloves. rubber.

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

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

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.

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 : 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

Thermomelt® HEAT-STIK Markers 206 °F (97 °C), 550 °F (288 °C), 213 °F (100, 101 °C)	
ACGIH	Not applicable
OSHA	Not applicable

5-nitroisophthalic acid (618-88-2)	
ACGIH	Not applicable
OSHA	Not applicable

azelaic acid (123-99-9)	
ACGIH	Not applicable
OSHA	Not applicable

undecanedioic acid (1852-04-6)	
ACGIH	Not applicable
OSHA	Not applicable

suberic acid (505-48-6)	
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. rubber. Wear thermal protective gloves when working around hot surfaces.

Eye protection : Chemical goggles or safety glasses.

Respiratory protection : In case of inadequate ventilation wear respiratory protection. Use air-purifying respirator equiped 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	:	white.
Odour	:	No data available
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	:	215 °C (206 °F Marker)
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	:	< 1
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 %

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 (CO, CO2). hydrogen chloride. Potassium oxides. Sulphur oxides.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

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

azelaic acid (123-99-9)	
LD50 oral rat	> 2000 mg/kg read-across Octanoic Acid (mixed isomers)
LD50 dermal rabbit	> 2000 mg/kg read-across stearic acid
LC50 inhalation rat (mg/l)	> 0.1621 mg/l/4h read-across Octanoic Acid (mixed isomers)

undecanedioic acid (1852-04-6)	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rat	> 6000 mg/kg

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) : Not classified
Specific target organ toxicity (repeated exposure) : Not classified
Aspiration hazard : Not classified
Potential adverse human health effects and symptoms
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

5-nitroisophthalic acid (618-88-2)	
LC50 fish 1	3861.279 mg/l 96 h
EC50 Daphnia 1	2044.325 mg/l 48 h

azelaic acid (123-99-9)	
LC50 fish 1	> 16 mg/l 96 h; read-across decanoic acid
EC50 Daphnia 1	> 20 mg/l 48 h; read-across decanoic acid
NOEC chronic fish	6.4 mg/l danio rerio 28 days; read-across sodium laurate

undecanedioic acid (1852-04-6)	
LC50 fish 1	> 100 mg/l 96 h
EC50 Daphnia 1	> 100 mg/l 48 h

12.2. Persistence and degradability

5-nitroisophthalic acid (618-88-2)	
Biodegradation	50 % 38 d

azelaic acid (123-99-9)	
Persistence and degradability	Readily biodegradable.

undecanedioic acid (1852-04-6)	
Persistence and degradability	Readily biodegradable.

12.3. Bioaccumulative potential

Thermomelt® HEAT-STIK Markers 206 °F (97 °C), 550 °F (288 °C), 213 °F (100, 101 °C)	
Log Pow	< 1

5-nitroisophthalic acid (618-88-2)	
BCF fish 1	3.2
Log Pow	1.5735
Bioaccumulative potential	Not expected to bioaccumulate.

azelaic acid (123-99-9)	
Log Pow	1.7
Bioaccumulative potential	May bioaccumulate.

undecanedioic acid (1852-04-6)	
Log Pow	2.8

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

5-nitroisophthalic acid (618-88-2)

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

azelaic acid (123-99-9)

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

undecanedioic acid (1852-04-6)

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

suberic acid (505-48-6)

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

15.2. International regulations

CANADA

5-nitroisophthalic acid (618-88-2)

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

azelaic acid (123-99-9)

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

undecanedioic acid (1852-04-6)

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

suberic acid (505-48-6)

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

EU-Regulations

5-nitroisophthalic acid (618-88-2)

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

azelaic acid (123-99-9)

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

undecanedioic acid (1852-04-6)

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

suberic acid (505-48-6)

Listed on ELINCS (European List of Notified 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 : Revision : Added. 213 °F.

Data sources : ACGIH 2000.

Canadian Centre for Occupational Health and Safety. Accessed at: http://www.ccohs.ca/oshanswers/legisl/whmis_classifi.html.

ESIS (European chemincal 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.

Abbreviations and acronyms : ACGIH (American Conference of Governement 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.

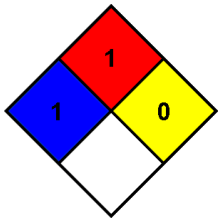
TWA: Time Weight Average.

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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Safety Data Sheet

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according to Canadian Hazardous Products Regulations (HPR)

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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