according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

according to Canadian Hazardous Products Regulations (HPR)

LA-CO Industries, Inc.

Date of issue: 04/10/2015
Revision date: 01/05/2016

Version: 3.0

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

## 1.1. Product identifier

Product form : Mixture

Trade name : Tempilstik® 266 °F (130 °C), 269 °F (132 °C), 344 °F (173 °C), 356 °F (180 °C), 363 °F (184 °C

°C), 750 °F (399 °C), 1300 °F (704 °C), 140 °F (60 °C), 194 °F (90 °C), 752 °F (400 °C), 1292

°F (700 °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 hazard classes and H-statements : 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+P364 - Take off contaminated clothing and wash it before reuse
P403+P233 - Store in a well-ventilated place. Keep container tightly closed

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P405 - Store locked up

P501 - Dispose of contents/container to an authorised waste collection point

### 2.3. Other hazards

## 2.4 Unknown acute toxicity (GHS US)

5.84 percent of the mixture consists of ingredient(s) of unknown acute toxicity (Oral)

5.84 percent of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal)

5.84 percent of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Dust/Mist))

# **SECTION 3: Composition/information on ingredients**

## 3.1. Substance

Not applicable

## 3.2. Mixture

Name	Product identifier	% (w/w)	GHS-US classification
hymecromone	(CAS No) 90-33-5	85.26 : 344 °F 90.79 : 356 °F 82.99 : 363 °F	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335
salicylanilide	(CAS No) 87-17-2	89.87 : 266 °F 82.65 : 269 °F	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335
dilithium molybdate	(CAS No) 13568-40-6	30.9 : 750 °F, 752 °F 70.4 : 1300 °F, 1292 °F	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335
butyl 4-hydroxybenzoate	(CAS No) 94-26-8	82.79 – 83.63 : 140 °F	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335
benzil	(CAS No) 134-81-6	81.6 194 °F	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335
potassium molybdate	(CAS No) 13446-49-6	21.21 : 750 °F, 752 °F	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335
Iron oxide red	(CAS No) 1309-37-1	1.69 : 266 °F 0.11 : 750 °F, 752 °F 0.01 : 1300 °F, 1292 °F	Aquatic Chronic 2, H411
lithium carbonate	(CAS No) 554-13-2	1.2 : 750 °F, 752 °F 0.71 : 1300 °F, 1292 °F	Acute Tox. 4 (Oral), H302 Eye Irrit. 2A, H319

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 : 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. Do NOT induce vomiting.

# 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

Treat symptomatically and supportively.

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# **SECTION 5: Firefighting measures**

## 5.1. Extinguishing media

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

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.

# **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.

6.1.1. For non-emergency personnel

Protective equipment : Chemical goggles or safety glasses. Dust impervious gloves.

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Chemical goggles or safety glasses. Dust impervious gloves.

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 : 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 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.

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# **SECTION 8: Exposure controls/personal protection**

# 8.1. Control parameters

Tempilstik® 266 °F (130 °C) 194 °F (90 °C) 752	0 °C), 269 °F (132 °C), 344 °F (173 °C), 356 °F (1 °F (400 °C), 1292 °F (700 °C)	80 °C), 363 °F (184 °C), 750 °F (399 °C), 1300 °F (704 °C), 140 °F (60		
ACGIH				
OSHA	Not applicable			
salicylanilide (87-17-2)				
ACGIH	Not applicable	Not applicable		
OSHA	Not applicable	Not applicable		
Iron oxide red (1309-37	-1)			
ACGIH	ACGIH TWA (mg/m³)	5 mg/m³		
ACGIH	Remark (ACGIH)	Pneumoconiosis		
OSHA	OSHA PEL (TWA) (mg/m³)	10 mg/m³		
Canada (Quebec)	VEMP (mg/m³)	5 mg/m³ (Fer, trioxyde de, fumées et poussières (exprimée en Fe)) 10 mg/m³ (Rouge)		
hymecromone (90-33-5	)			
ACGIH	Not applicable	Not applicable		
OSHA	Not applicable			
potassium molybdate (	13446-49-6)			
ACGIH	Not applicable	Not applicable		
OSHA	Not applicable	Not applicable		
dilithium molybdate (13	3568-40-6)			
ACGIH	* ,			
OSHA	Not applicable	Not applicable		
lithium carbonate (554-	13-2)			
ACGIH	Not applicable			
OSHA	Not applicable			
butyl 4-hydroxybenzoa	te (94-26-8)			
ACGIH	Not applicable	·		
OSHA	Not applicable			
benzil (134-81-6)				
ACGIH	Not applicable			
DSHA Not applicable				

# 8.2. Exposure controls

Personal protective equipment

Hand protection

Eye protection

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

: Avoid all unnecessary exposure.: Wear dust impervious gloves.: Chemical goggles or safety glasses.

Respiratory protection : In case of inadequate ventilation wear respiratory protection. Use air-purifying respirator

equipped with particulate filtering cartridges.

# **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 : Variable.

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: odourless. Odour threshold : No data available : No data available Relative evaporation rate (butyl acetate=1) : No data available Melting point : No data available Freezing point : No data available Boiling point : No data available : No data available Flash point 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 %

# **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 creating or spreading dust.

## 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 : Not classified

salicylanilide (87-17-2)		
LD50 oral rat	2400 mg/kg	
ATE CLP (oral) 2400.000 mg/kg bodyweight		
Iron oxide red (1309-37-1)		
LD50 oral rat > 10000 mg/kg		
hymecromone (90-33-5)		
LD50 oral rat	3850 mg/kg	
ATE CLP (oral)	E CLP (oral) 3850.000 mg/kg bodyweight	
lithium carbonate (554-13-2)		
LD50 oral rat	525 ma/ka	

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lithium carbonate (554-13-2)		
LD50 dermal rabbit	> 3000 mg/kg	
LC50 inhalation rat (mg/l)	> 2 mg/l/4h	
ATE CLP (oral)	525.000 mg/kg bodyweight	
butyl 4-hydroxybenzoate (94-26-8)		
LD50 oral rat	13200 mg/kg	
ATE CLP (oral) 13200.000 mg/kg bodyweight		
benzil (134-81-6)		
LD50 oral rat	> 3000 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		

Iron oxide red (1309-37-1)		
IARC group	3 - Not classifiable	
National Toxicology Program (NTP) Status	Not listed in carcinogenicity class	

Reproductive toxicity

Specific target organ toxicity (single exposure)

: May cause respiratory irritation.

Specific target organ toxicity (repeated : Not classified

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 : Inhalation; Skin and eye contact

# **SECTION 12: Ecological information**

#### 12.1 **Toxicity**

Iron oxide red (1309-37-1)		
EC50 Daphnia 1 > 100 mg/l		
lithium carbonate (554-13-2)		
LC50 fish 1	30.3 mg/l 96 h	
EC50 Daphnia 1	33.2 mg/l 48 h	

## Persistence and degradability

No additional information available

#### **Bioaccumulative potential** 12.3.

No additional information available

# 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.

: Avoid release to the environment. Ecology - waste materials

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# **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

# salicylanilide (87-17-2)

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

## Iron oxide red (1309-37-1)

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

## hymecromone (90-33-5)

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

## potassium molybdate (13446-49-6)

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

# dilithium molybdate (13568-40-6)

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

# lithium carbonate (554-13-2)

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

SARA Section 313 - Emission Reporting 0 %

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

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

# benzil (134-81-6)

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

# 15.2. International regulations

## **CANADA**

# salicylanilide (87-17-2)

Listed on the Canadian DSL (Domestic Substances List) inventory

# Iron oxide red (1309-37-1)

Listed on the Canadian DSL (Domestic Substances List) inventory

# hymecromone (90-33-5)

Listed on the Canadian DSL (Domestic Substances List) inventory

# potassium molybdate (13446-49-6)

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

# dilithium molybdate (13568-40-6)

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

## lithium carbonate (554-13-2)

Listed on the Canadian DSL (Domestic Substances List) inventory

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

Listed on the Canadian DSL (Domestic Substances List) inventory

# benzil (134-81-6)

Listed on the Canadian DSL (Domestic Substances List) inventory

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## **EU-Regulations**

### salicylanilide (87-17-2)

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

### Iron oxide red (1309-37-1)

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

## hymecromone (90-33-5)

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

### potassium molybdate (13446-49-6)

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

### dilithium molybdate (13568-40-6)

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

## lithium carbonate (554-13-2)

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)

### benzil (134-81-6)

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

## **National regulations**

**Tempilstik® 266 °F (130 °C), 269** °F (132 °C), 344 °F (173 °C), 356 °F (180 °C), 363 °F (184 °C), 750 °F (399 °C), 1300 °F (704 °C), 140 °F (60 °C), 194 °F (90 °C), 752 °F (400 °C), 1292 °F (700 °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

Total Go Giato Togalationo				
lithium carbonate (554-13-2)				
U.S California - Proposition 65 - Carcinogens List	U.S California - Proposition 65 - Developmental Toxicity	U.S California - Proposition 65 - Reproductive Toxicity - Female	U.S California - Proposition 65 - Reproductive Toxicity - Male	Non-significant risk level (NSRL)
Yes	No	No	No	

# Iron oxide red (1309-37-1)

U.S. - Minnesota - Hazardous Substance List

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

## lithium carbonate (554-13-2)

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

# **SECTION 16: Other information**

Indication of changes : Added. Product.

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Data sources

: ACGIH 2000.

Canadian Centre for Occupational Health and Safety. Accessed at: <a href="http://www.ccohs.ca/oshanswers/legisl/whmis\_classifi.html">http://www.ccohs.ca/oshanswers/legisl/whmis\_classifi.html</a>.

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 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

: 1 - Exposure could cause irritation but only minor residual

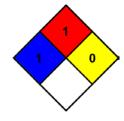
injury even if no treatment is given.

NFPA fire hazard : 1 - Must be preheated before ignition can occur.

: None.

: 0 - Normally stable, even under fire exposure conditions,

and not reactive with water.



# Full text of H-statements:

NFPA health hazard

NFPA reactivity

H302	Harmful if swallowed	
H315	Causes skin irritation	
H319	Causes serious eye irritation	
H335	May cause respiratory irritation	
H411	Toxic to aquatic life with long lasting effects	

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

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