

# 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), 176 °F (80 °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: 04/06/2015  
Revision date: 12/29/2015

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® 150 °F (66 °C), 158 °F (70 °C), 163 °F (73 °C), 167 °F (75 °C), 169 °F (76 °C), 175 °F (79 °C), 176 °F (80 °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. 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

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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
acetoacetanilide	(CAS No) 102-01-2	72.15 – 72.52 : 150 °F 75.63 – 76.02 : 158 °F 87.74 – 88.18 : 167 °F 84.23 – 85.65 : 169 °F 88.45 – 88.90 : 175 °F, 176 °F 82.01 – 82.42 : 163 °F	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 STOT RE 2, H373
butyl 4-hydroxybenzoate	(CAS No) 94-26-8	5.62 – 5.67 : 175 °F, 176 °F	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335
Cobalt compound	(CAS No) trade secret	1.56 : 163 °F	Comb. Dust, H232 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335

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

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.

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### 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

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ACGIH	Not applicable
OSHA	Not applicable
acetoacetanilide (102-01-2)	
ACGIH	Not applicable
OSHA	Not applicable
butyl 4-hydroxybenzoate (94-26-8)	
ACGIH	Not applicable
OSHA	Not applicable
Cobalt compound (trade secret)	
ACGIH	Not applicable
OSHA	Not applicable

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### 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

Physical state	: Solid
Colour	: Variable.
Odour	: odourless.
Odour threshold	: No data available
pH	: 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
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

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

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### 11.1. Information on toxicological effects

**Acute toxicity** : Oral: Harmful if swallowed. Dermal: Harmful in contact with skin. Inhalation:dust,mist: Harmful if inhaled.

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ATE CLP (oral)	1278.978 mg/kg bodyweight
ATE CLP (dermal)	1243.922 mg/kg bodyweight
ATE CLP (dust,mist)	1.696 mg/l/4h

acetoacetanilide (102-01-2)	
LD50 oral rat	1131 (1131 - 4650) mg/kg
ATE CLP (oral)	1131.000 mg/kg bodyweight
ATE CLP (dermal)	1100.000 mg/kg bodyweight
ATE CLP (dust,mist)	1.500 mg/l/4h

butyl 4-hydroxybenzoate (94-26-8)	
LD50 oral rat	13200 mg/kg
ATE CLP (oral)	13200.000 mg/kg bodyweight

**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)** : Not classified

**Specific target organ toxicity (repeated exposure)** : May cause damage to organs through prolonged or repeated exposure.

acetoacetanilide (102-01-2)	
NOAEL (oral, rat, 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)	
LC50 fish 1	242 (242 - 332) mg/l 96 hours, Brachydanio rerio
ErC50 (algae)	318 mg/l Selenastrum capricornutum , 72 hours
ErC50 (other aquatic plants)	500 mg/l 3 hours
NOEC chronic algae	180 mg/l

### 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

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### 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

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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.

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### 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>.

### 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

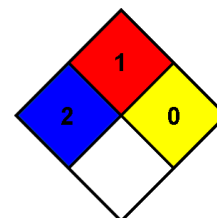
: 2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.

### 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:

Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
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
Comb. Dust	Combustible Dust
Eye Irrit. 2A	Serious eye damage/eye irritation, Category 2A
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
H232	May form combustible dust concentrations in air
H302	Harmful if swallowed
H312	Harmful in contact with skin
H315	Causes skin irritation
H319	Causes serious eye irritation
H332	Harmful if inhaled
H335	May cause respiratory irritation
H373	May cause damage to organs through prolonged or repeated exposure

**SDS Prepared by:** The Redstone Group, LLC  
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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*