

# Tempilstik® 1000 °F (538 °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: 04/09/2015  
Version: 1.0

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

### 1.1. Product identifier

Product form : Mixture  
Trade name : Tempilstik® 1000 °F (538 °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

Eye Irrit. 2A H319  
Skin Sens. 1 H317  
Muta. 1B H340  
Carc. 1B H350  
STOT SE 3 H335  
Aquatic Acute 1 H400  
Aquatic Chronic 2 H411

Full text of H-phrases: see section 16

### 2.2. Label elements

#### GHS-US labelling

Hazard pictograms (GHS-US) :



GHS07

GHS08

GHS09

Signal word (GHS-US) :

Danger

Hazard statements (GHS-US) :

H317 - May cause an allergic skin reaction  
H319 - Causes serious eye irritation  
H335 - May cause respiratory irritation  
H340 - May cause genetic defects  
H350 - May cause cancer  
H400 - Very toxic to aquatic life  
H411 - Toxic to aquatic life with long lasting effects

Precautionary statements (GHS-US) :

P201 - Obtain special instructions before use  
P202 - Do not handle until all safety precautions have been read and understood  
P261 - Avoid breathing dust, fume  
P264 - Wash hands thoroughly after handling  
P271 - Use only outdoors or in a well-ventilated area  
P272 - Contaminated work clothing must not be allowed out of the workplace  
P273 - Avoid release to the environment  
P280 - Wear eye protection, protective clothing, 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

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P308+P313 - If exposed or concerned: Get medical advice/attention  
P321 - Specific treatment (see First aid measures on this label)  
P333+P313 - If skin irritation or rash 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  
P391 - Collect spillage  
P403+P233 - Store in a well-ventilated place. Keep container tightly closed  
P405 - Store locked up  
P501 - Dispose of contents/container to an authorised waste collection point

### 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
Molybdenum trioxide	(CAS No) 1313-27-5	17.1	Eye Irrit. 2A, H319 Carc. 2, H351 STOT SE 3, H335
potassium chromate	(CAS No) 7789-00-6	3.37 - 3.74	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Skin Sens. 1, H317 Muta. 1B, H340 Carc. 1B, H350 STOT SE 3, H335 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

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 exposed or concerned: Get medical advice/attention.

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 or rash 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 : May cause genetic defects. May cause cancer.

Symptoms/injuries after skin contact : Causes skin irritation. May cause an allergic skin reaction.

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

### 4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

## 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.

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 : 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. 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

Do not discharge into drains or the environment. Prevent dispersion. Prevent entry to sewers and public waters.

#### 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. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Eliminate all ignition sources if safe to do so.

Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.

#### 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

Tempilstik® 1000 °F (538 °C)	
ACGIH	Not applicable
OSHA	Not applicable
potassium chromate (7789-00-6)	
ACGIH	Not applicable
OSHA	Not applicable
Molybdenum trioxide (1313-27-5)	
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). Ensure good ventilation of the work station.

Personal protective equipment : Avoid all unnecessary exposure.

Hand protection : Dust impervious gloves. Use rubber gloves.

Eye protection : Chemical goggles or safety glasses.

Skin and body protection : Wear suitable protective clothing. Long sleeved protective clothing.

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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 : No data available  
Odour : odourless.  
Odour threshold : No data available  
pH : No data available  
Relative evaporation rate (butyl acetate=1) : No data available  
Melting point : 538 °C  
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 %

### 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

#### 11.1. Information on toxicological effects

Acute toxicity : Not classified

potassium chromate (7789-00-6)	
LD50 dermal rabbit	> 2000 mg/kg Read across category approach
LC50 inhalation rat (mg/l)	99 mg/m <sup>3</sup> 4 h, read across category approach
Molybdenum trioxide (1313-27-5)	
LD50 oral rat	> 2000 mg/kg

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<b>Molybdenum trioxide (1313-27-5)</b>	
LD50 dermal rat	> 2000 mg/kg bodyweight
LC50 inhalation rat (mg/l)	> 3.92 mg/l/4h

<b>Skin corrosion/irritation</b>	: Not classified
<b>Serious eye damage/irritation</b>	: Causes serious eye irritation.
<b>Respiratory or skin sensitisation</b>	: May cause an allergic skin reaction.
<b>Germ cell mutagenicity</b>	: May cause genetic defects.
<b>Carcinogenicity</b>	: May cause cancer.
<b>Reproductive toxicity</b>	: Not classified
<b>Specific target organ toxicity (single exposure)</b>	: May cause respiratory irritation.
<b>Specific target organ toxicity (repeated exposure)</b>	: Not classified
<b>Aspiration hazard</b>	: Not classified
<b>Potential adverse human health effects and symptoms</b>	
Symptoms/injuries after skin contact	: Causes skin irritation. May cause an allergic skin reaction.
Symptoms/injuries after eye contact	: Causes serious eye irritation.
Likely routes of exposure	: Inhalation;Skin and eye contact

## SECTION 12: Ecological information

<b>12.1 Toxicity</b>	
Ecology - water	: Very toxic to aquatic life. Toxic to aquatic life with long lasting effects.

<b>potassium chromate (7789-00-6)</b>	
LC50 fish 1	58.5 mg/l Brachydanio rerio, read across category approach
EC50 Daphnia 1	0.035 mg/l Read across category approach

<b>Molybdenum trioxide (1313-27-5)</b>	
LC50 fish 1	>= 43.3 (≤ 58) mg/l
NOEC (chronic)	> 87.8 mg/l

### 12.2. Persistence and degradability

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Persistence and degradability	May cause long-term adverse effects in the environment.

### 12.3. Bioaccumulative potential

No additional information available

### 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

Transport document description	: UN3077 Environmentally hazardous substances, solid, n.o.s. (potassium chromate), 9, III
UN-No.(DOT)	: UN3077
Proper Shipping Name (DOT)	: Environmentally hazardous substances, solid, n.o.s. (potassium chromate)
Department of Transportation (DOT) Hazard Classes	: 9 - Class 9 (Miscellaneous dangerous materials)
Packing group (DOT)	: III - Minor Danger

### ADR

Transport document description	: UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (potassium chromate), 9, III, (E)
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Proper Shipping Name (ADR) : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (potassium chromate)  
Packing group (ADR) : III  
Class (ADR) : 9 - Miscellaneous dangerous substances and articles

### Transport by sea

UN-No. (IMDG) : UN 3077  
Proper Shipping Name (IMDG) : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (potassium chromate)  
Class (IMDG) : 9 - Miscellaneous dangerous substances and articles  
Packing group (IMDG) : III

### Air transport

UN-No.(IATA) : UN 3077  
Proper Shipping Name (IATA) : Environmentally hazardous substance, solid, n.o.s. (potassium chromate)  
Class (IATA) : 9 - Miscellaneous Dangerous Goods  
Packing group (IATA) : III

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

#### Potassium chromate (7789-00-6)

Listed on the United States TSCA (Toxic Substances Control Act) inventory  
Listed on United States SARA Section 313

EPA TSCA Regulatory Flag	R - R - indicates a substance that is the subject of a Section 6 risk management rule under TSCA.
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#### Molybdenum trioxide (1313-27-5)

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

### 15.2. International regulations

#### CANADA

#### Potassium chromate (7789-00-6)

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

#### Molybdenum trioxide (1313-27-5)

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

#### EU-Regulations

#### Potassium chromate (7789-00-6)

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

#### Molybdenum trioxide (1313-27-5)

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

#### Potassium chromate (7789-00-6)

U.S. - New Jersey - Right to Know Hazardous Substance List  
U.S. - New York - Right to Know List of Hazardous Chemicals  
U.S. - Pennsylvania - List of Hazardous Substances

## SECTION 16: Other information

Indication of changes : Original Document.

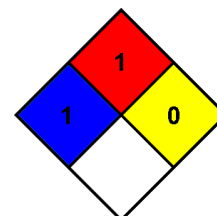
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Data sources	: ACGIH 2000. Canadian Centre for Occupational Health and Safety. Accessed at: <a href="http://www.ccohs.ca/oshanswers/legisl/whmis_classifi.html">http://www.ccohs.ca/oshanswers/legisl/whmis_classifi.html</a> . ESIS (European chemical Substances Information System; accessed at: <a href="http://esis.jrc.ec.europa.eu/index.php?PGM=cla">http://esis.jrc.ec.europa.eu/index.php?PGM=cla</a> . European Chemicals Agency (ECHA) Registered Substances list. Accessed at <a href="http://echa.europa.eu/">http://echa.europa.eu/</a> . 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 <a href="http://www.epa.gov/oppt/existingchemicals/pubs/tscainventory/howto.html">http://www.epa.gov/oppt/existingchemicals/pubs/tscainventory/howto.html</a> .
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:

Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
Carc. 1B	Carcinogenicity, Category 1B
Carc. 2	Carcinogenicity, Category 2
Eye Irrit. 2A	Serious eye damage/eye irritation, Category 2A
Muta. 1B	Germ cell mutagenicity, Category 1B
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Sensitisation — Skin, category 1
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
H335	May cause respiratory irritation
H340	May cause genetic defects
H350	May cause cancer
H351	Suspected of causing cancer
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects
H411	Toxic 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*