

Tempilstik® 1022 °F (550 °C), 288 °F (142 °C)

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: 11/17/2015

LA-CO Industries, Inc.

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® 1022 °F (550 °C), 288 °F (142 °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
Carc. 2 H351

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) :

H319 - Causes serious eye irritation
H351 - Suspected of causing cancer

Precautionary statements (GHS-US) :

P201 - Obtain special instructions before use
P202 - Do not handle until all safety precautions have been read and understood
P264 - Wash hands thoroughly after handling
P280 - Wear eye protection, protective gloves
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P308+P313 - If exposed or concerned: Get medical advice/attention
P337+P313 - If eye irritation persists: Get medical advice/attention
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)

6.52 percent of the mixture consists of ingredient(s) of unknown acute toxicity (Oral)
6.52 percent of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal)
6.52 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

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3.2. Mixture

Name	Product identifier	% (w/w)	GHS-US classification
adipic acid	(CAS No) 124-04-9	82.59 : 288 °F	Eye Irrit. 2A, H319
Molybdenum trioxide	(CAS No) 1313-27-5	17.39 : 1022 °F	Eye Irrit. 2A, H319 Carc. 2, H351 STOT SE 3, H335
Carbon black	(CAS No) 1333-86-4	0.49 : 288 °F	Carc. 2, H351

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.
First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact : Gently wash with plenty of soap and water.
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 : Call a POISON CENTER or doctor/physician if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/injuries : Suspected of causing cancer.
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 : Use extinguishing media appropriate for surrounding fire.
Unsuitable extinguishing media : None known.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : No particular fire or explosion hazard.
Reactivity : No dangerous reactions known.

5.3. Advice for firefighters

- Firefighting instructions : Do not allow run-off from fire fighting to enter drains or water courses.
Protection during firefighting : 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 : Avoid contact with skin, eyes and clothing. Avoid creating or spreading dust.

6.1.1. For non-emergency personnel

- Protective equipment : Chemical goggles or safety glasses. Wear suitable gloves.
Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

- Protective equipment : Chemical goggles or safety glasses. Wear suitable gloves.
Emergency procedures : Ventilate area. Stop leak if safe to do so.

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.
Methods for cleaning up : Sweep spilled substance into containers; if appropriate, moisten first to prevent dusting.

6.4. Reference to other sections

Section 7: safe handling. Section 8: personal protective equipment.

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SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid contact with skin, eyes and clothing.
- 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 original container.
- Incompatible products : Strong acids. Strong bases. Strong oxidizers.
- Heat and ignition sources : Keep away from heat, sparks and flame.
- Prohibitions on mixed storage : 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	
Molybdenum trioxide (1313-27-5)		
ACGIH	Not applicable	
OSHA	Not applicable	
adipic acid (124-04-9)		
ACGIH	ACGIH TWA (mg/m ³)	5 mg/m ³
ACGIH	Remark (ACGIH)	URT irr; ANS impair
OSHA	Not applicable	
Canada (Quebec)	VEMP (mg/m ³)	5 mg/m ³
Carbon black (1333-86-4)		
ACGIH	ACGIH TWA (mg/m ³)	3.5 mg/m ³
ACGIH	Remark (ACGIH)	Bronchitis
OSHA	OSHA PEL (TWA) (mg/m ³)	3.5 mg/m ³
Canada (Quebec)	VEMP (mg/m ³)	10 mg/m ³ (Fibres de carbone et de graphite; Poussière totale) 5 mg/m ³ (Fibres de carbone et de graphite; Poussière respirable) 3.5 mg/m ³

8.2. Exposure controls

- Appropriate engineering controls : Ensure good ventilation of the work station.
- Personal protective equipment : Avoid all unnecessary exposure.
- Hand protection : Use rubber gloves.
- Eye protection : Chemical goggles or safety glasses.
- Respiratory protection : In case of inadequate ventilation wear respiratory protection. Use air-purifying respirator equipped with particulate filtering cartridges.
- 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 : Variable.
- Odour : No data available
- Odour threshold : No data available

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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 %

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

None known.

10.5. Incompatible materials

Strong acids. Strong bases. Strong oxidizers.

10.6. Hazardous decomposition products

Carbon oxides (CO, CO₂).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Molybdenum trioxide (1313-27-5)	
LD50 oral rat	> 2000 mg/kg
LD50 dermal rat	> 2000 mg/kg bodyweight
LC50 inhalation rat (mg/l)	> 3.92 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
Carbon black (1333-86-4)	
LD50 oral rat	> 8000 mg/kg
LC50 inhalation rat (mg/l)	> 4.6 mg/m ³ 4 h

Skin corrosion/irritation : Not classified

Serious eye damage/irritation : Causes serious eye irritation.

Respiratory or skin sensitisation : Not classified

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Germ cell mutagenicity : Not classified
Carcinogenicity : Suspected of causing cancer.

Carbon black (1333-86-4)	
IARC group	2B - Possibly carcinogenic to humans, Inhalation of dust
National Toxicology Program (NTP) Status	Not listed in carcinogenicity class

Reproductive toxicity : Not classified
Specific target organ toxicity (single exposure) : Not classified
Specific target organ toxicity (repeated exposure) : 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 eye contact : Causes serious eye irritation.
Likely routes of exposure : Inhalation;Skin and eye contact

SECTION 12: Ecological information

12.1 Toxicity

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

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

12.2. Persistence and degradability

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

Carbon black (1333-86-4)	
Persistence and degradability	Not readily biodegradable.

12.3. Bioaccumulative potential

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

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.

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) :

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SECTION 15: Regulatory information

15.1. US Federal regulations

Molybdenum trioxide (1313-27-5)

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

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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Carbon black (1333-86-4)

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

15.2. International regulations

CANADA

Molybdenum trioxide (1313-27-5)

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

adipic acid (124-04-9)

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

Carbon black (1333-86-4)

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

EU-Regulations

Molybdenum trioxide (1313-27-5)

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

adipic acid (124-04-9)

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

Carbon black (1333-86-4)

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

Carbon black (1333-86-4)

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	

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

Carbon black (1333-86-4)

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

SECTION 16: Other information

Indication of changes

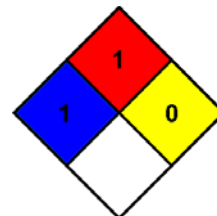
: Original Document.

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Data sources	: ACGIH (American Conference of Government Industrial Hygienists). European Chemicals Agency (ECHA) C&L Inventory database. Accessed at http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database . Kristen 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. TSCA Chemical Substance Inventory. Accessed at http://www.epa.gov/oppt/existingchemicals/pubs/tscainventory/howto.html .
Abbreviations and acronyms	: 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. TWA: Time Weight Average. TSCA: Toxic Substances Control Act.
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-statements:

Carc. 2	Carcinogenicity, Category 2
Eye Irrit. 2A	Serious eye damage/eye irritation, Category 2A
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
H319	Causes serious eye irritation
H335	May cause respiratory irritation
H351	Suspected of causing cancer

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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