

Tempilstik® 450 °F (232 °C), 446 °F (230 °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: 04/17/2015
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® 450 °F (232 °C), 446 °F (230 °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

Muta. 2 H341
Carc. 1B H350
Repr. 2 H361
Aquatic Chronic 2 H411

Full text of H-phrases: see section 16

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US) :



Signal word (GHS-US) :

Danger

Hazard statements (GHS-US) :

H341 - Suspected of causing genetic defects
H350 - May cause cancer
H361 - Suspected of damaging fertility or the unborn child
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
P273 - Avoid release to the environment
P280 - Wear protective clothing, protective gloves
P308+P313 - If exposed or concerned: Get medical advice/attention
P391 - Collect spillage
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

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3.2. Mixture

Name	Product identifier	% (w/w)	GHS-US classification
1,1,1 Tris Ethane	(CAS No) 27955-94-8	84.15 – 85 : 450 °F 84.7 – 85.56 : 446 °F	Aquatic Chronic 2, H411
Phenolphthalein	(CAS No) 77-09-8	3.53 : 450 °F 3.55 : 446 °F	Muta. 2, H341 Carc. 1B, H350 Repr. 2, H361
Carbon black	(CAS No) 1333-86-4	0.88 : 450 °F	Carc. 2, H351

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. 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.
- First-aid measures after skin contact : Wash with plenty of soap and water.
- First-aid measures after eye contact : Rinse cautiously with water for several minutes.
- 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 : Suspected of causing genetic defects. Suspected of damaging fertility or the unborn child. May cause cancer.

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.

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 : Wear suitable protective clothing and gloves.
- Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

- Protective equipment : Wear suitable protective clothing and gloves.
- Emergency procedures : Ventilate area.

6.2. Environmental precautions

Do not discharge into drains or the environment. 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.

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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 : Obtain special instructions before use. Use personal protective equipment as required. Do not handle until all safety precautions have been read and understood. Avoid dust formation.

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.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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ACGIH	Not applicable	
OSHA	Not applicable	
1,1,1 Tris Ethane (27955-94-8)		
ACGIH	Not applicable	
OSHA	Not applicable	
Phenolphthalein (77-09-8)		
ACGIH	Not applicable	
OSHA	Not applicable	
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 : 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 : In case of dust production: protective goggles.

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

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.

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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 %

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

1,1,1 Tris Ethane (27955-94-8)	
LD50 oral rat	> 5000 mg/kg bodyweight
LD50 dermal rat	> 2000 mg/kg bodyweight
Phenolphthalein (77-09-8)	
LD50 oral rat	> 2000 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 : Not classified

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Suspected of causing genetic defects.

Carcinogenicity : May cause cancer.

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Phenolphthalein (77-09-8)	
IARC group	2B - Possibly carcinogenic to humans
National Toxicology Program (NTP) Status	3 - Reasonably anticipated to be Human Carcinogen

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 : Suspected of damaging fertility or the unborn child.

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

Likely routes of exposure : Inhalation;Skin and eye contact

SECTION 12: Ecological information

12.1 Toxicity

Ecology - water : Toxic to aquatic life with long lasting effects.

Phenolphthalein (77-09-8)	
EC50 Daphnia 1	> 100 mg/l

12.2. Persistence and degradability

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

1,1,1 Tris Ethane (27955-94-8)	
Persistence and degradability	Not readily biodegradable.
Biodegradation	8 %

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

12.3. Bioaccumulative potential

1,1,1 Tris Ethane (27955-94-8)	
Log Kow	3.88

Phenolphthalein (77-09-8)	
Log Kow	2.4

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. (1,1,1 Tris Ethane), 9, III

UN-No.(DOT) : UN3077

Proper Shipping Name (DOT) : Environmentally hazardous substances, solid, n.o.s. (1,1,1 Tris Ethane)

Transport hazard class(es) (DOT) : 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. (1,1,1 Tris Ethane), 9, III, (E)

Proper Shipping Name (ADR) : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (1,1,1 Tris Ethane)

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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. (1,1,1 Tris Ethane)
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. (1,1,1 Tris Ethane)
Class (IATA) : 9 - Miscellaneous Dangerous Goods
Packing group (IATA) : III

SECTION 15: Regulatory information

15.1. US Federal regulations

1,1,1 Tris Ethane (27955-94-8)

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

EPA TSCA Regulatory Flag : P - P - indicates a commenced PMN substance.

Phenolphthalein (77-09-8)

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

Carbon black (1333-86-4)

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

15.2. International regulations

CANADA

1,1,1 Tris Ethane (27955-94-8)

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

Phenolphthalein (77-09-8)

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

1,1,1 Tris Ethane (27955-94-8)

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

Phenolphthalein (77-09-8)

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

Phenolphthalein (77-09-8)

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	No significance risk level (NSRL)
Yes	No	No	No	

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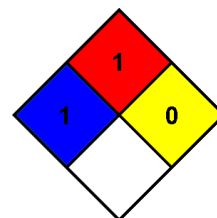
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Carbon black (1333-86-4)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significance risk level (NSRL)
Yes	No	No	No	
Phenolphthalein (77-09-8)				
U.S. - New Jersey - Right to Know Hazardous Substance 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.
Data sources	: ACGIH 2000. Canadian Centre for Occupational Health and Safety. Accessed at: 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	: 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 Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
Carc. 1B	Carcinogenicity, Category 1B
Carc. 2	Carcinogenicity, Category 2
Muta. 2	Germ cell mutagenicity, Category 2
Repr. 2	Reproductive toxicity, Category 2
H341	Suspected of causing genetic defects
H350	May cause cancer
H351	Suspected of causing cancer
H361	Suspected of damaging fertility or the unborn child

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H411	Toxic to aquatic life with long lasting effects
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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