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

Trade name

LA-CO Industries, Inc.

: Mixture

: Tempilstik® 463 °F (239 °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

Aquatic Chronic 2 H411

2.2 Label elements

GHS-US labelling

Hazard pictograms (GHS-US)

Hazard statements (GHS-US)



: H411 - Toxic to aquatic life with long lasting effects

Precautionary statements (GHS-US)

- : P273 Avoid release to the environment P391 - Collect spillage
 - 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
1,1,1 Tris Ethane	(CAS No) 27955-94-8	89.17 - 90.07	Aquatic Chronic 2, H411

Full text of H-phrases: see section 16

SECTION 4: First aid measures

4.1.	Description of first aid measures			
First-aid	l measures general	: Never give anything by medical advice/attention	nouth to an unconscious person. IF exposed or concerned: Get .	
First-aid	I measures after inhalation	: Remove victim to fresh	air and keep at rest in a position comfortable for breathing.	
09/04/20	15	EN (English)	SDS Ref.: LACO1504013	1/1

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First-aid measures after skin contact	: Wash with plenty of soap and water.
First-aid measures after eye contact	: In case of contact, immediately flush eyes with plenty of water.
First-aid measures after ingestion	: Do NOT induce vomiting. Get medical advice/attention if you feel unwell.

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

Symptoms/injuries after eye contact : Direct contact with the eyes is likely to be irritating.

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 s	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.	

SECTION 6: Accidental release measures

6.1. Personal precautions, protective	Personal precautions, protective equipment and emergency procedures		
General measures	: Avoid creating or spreading dust.		
6.1.1. For non-emergency personnel			
Protective equipment	: Dust impervious gloves.		
Emergency procedures	: Evacuate unnecessary personnel.		
6.1.2. For emergency responders			
Protective equipment	: Dust impervious gloves.		
Emergency procedures	: Ventilate area.		
6.1.2. For emergency responders Protective equipment	: Dust impervious gloves.		

6.2. Environmental precautions

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

6.3. Me	Methods and material for containment and cleaning up		
For containm	nent	Avo	oid generating dust. Contain and collect as any solid.
Methods for a	cleaning up	Min	imize 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 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, includi	ng 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.

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7.3. Specific end use(s)

Temperature indicator.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters	
Tempilstik® 463 °F (239 °C)	
ACGIH	Not applicable
OSHA	Not applicable
1,1,1 Tris Ethane (27955-94-8	3)
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	: In case of repeated or prolonged contact wear gloves. Dust impervious gloves.
Eye protection	: In case of dust production: protective goggles.
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

	sherhoar properties
Physical state	: Solid
Appearance	: A solid crayon-like marker.
Colour	: No data available
Odour	: odourless.
Odour threshold	: No data available
рН	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Melting point	: 239 °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.

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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 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 : Not classified exposure) Specific target organ toxicity (repeated : Not classified exposure) : Not classified Aspiration hazard Potential adverse human health effects and symptoms Symptoms/injuries after eye contact : Direct contact with the eyes is likely to be irritating. Likely routes of exposure : Inhalation;Skin and eye contact

SECTION 12: Ecological information 12.1 Toxicity : Toxic to aquatic life with long lasting effects. Ecology - water 12.2. Persistence and degradability Tempilstik® 463 °F (239 °C) 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 % **Bioaccumulative potential** 12.3. 1,1,1 Tris Ethane (27955-94-8) 3.88 Log Kow Mobility in soil 12.4. No additional information available Other adverse effects 12.5 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.

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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)
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. (1,1,1 Tris Ethane), 9, III, (E)
Proper Shipping Name (ADR)	: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (1,1,1 Tris Ethane)
Packing group (ADR)	: 11
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)	: 111
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)	: 111

SECTION 15: Regulatory information 15.1. US Federal regulations 1,1,1 Tris Ethane (27955-94-8) EPA TSCA Regulatory Flag P - P - indicates a commenced PMN substance. 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. 15.2. International regulations

CANADA

1,1,1 Tris Ethane (27955-94-8)	
	Listed on the Canadian NDSL (Non-Domestic Substances List)

EU-Regulations

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

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

National regulations

Tempilstik® 463 °F (239 °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

No additional information available

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: http://www.ccohs.ca/oshanswers/legisl/whmis_classifi.html.
	ESIS (European chemincal Substances Information System; accessed at: <u>http://esis.jrc.ec.europa.eu/index.php?PGM=cla</u> .
	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 Governement 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
	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