# Tempilstik® 300 °F (149 °C), 302 °F (150 °C), 306 °F (152 °C), 313 °F (156 °C), 518 °F (270 °C), 525 °F (274 °C), 536 °F (280 °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: 04/22/2015
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® 300 °F (149 °C), 302 °F (150 °C), 306 °F (152 °C), 313 °F (156 °C), 518 °F (270 °C), 525 °F (274 °C), 536 °F (280 °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 3 H412

Full text of H-phrases: see section 16

### 2.2 Label elements

**GHS-US labelling**

Hazard statements (GHS-US) : H412 - Harmful to aquatic life with long lasting effects

Precautionary statements (GHS-US) : P273 - Avoid release to the environment
P501 - Dispose of contents/container to an authorised waste collection point

### 2.3. Other hazards

No additional information available

### 2.4 Unknown acute toxicity (GHS US)

86.22 percent of the mixture consists of ingredient(s) of unknown acute toxicity (Oral)
86.22 percent of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal)
86.22 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

### 3.2. Mixture

| Name | Product identifier | % (w/w) | GHS-US classification |
|---|---|---|---|
| 1,1,1 Tris Ethane | (CAS No) 27955-94-8 | 6.36 – 6.42 : 300 °F<br>6.38 – 6.44 : 302 °F<br>4.34 – 4.39 : 306 °F<br>2.76 – 2.79 : 313 °F<br>10.53 – 10.64 : 518 °F (270 °C), 525 °F<br>6.55 – 6.62 : 536 °F | Aquatic Chronic 2, H411 |
| adipic acid | (CAS No) 124-04-9 | 1.38 : 300 °F<br>1.21 : 302 °F | Eye Irrit. 2A, H319 |

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 : Gently 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.

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

Symptoms/injuries : Not expected to present a significant hazard under anticipated conditions of normal use.

### 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. 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 creating or spreading dust.

#### 6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

#### 6.1.2. For emergency responders

Emergency procedures : Ventilate area.

### 6.2. Environmental precautions

Avoid release to the environment. Do not discharge into drains or 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

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

| Tempilstik® 300 °F (149 °C), 302 °F (150 °C), 306 °F (152 °C), 313 °F (156 °C), 518 °F (270 °C), 525 °F (274 °C), 536 °F (280 °C) | |
|---|---|
| ACGIH | Not applicable |
| OSHA | Not applicable |

| adipic acid (124-04-9) | | |
|---|---|---|
| ACGIH | ACGIH TWA (mg/m³) | 5 mg/m³ |
| ACGIH | Remark (ACGIH) | URT irr; ANS impair |
| OSHA | Not applicable | |
| Canada (Quebec) | VEMP (mg/m³) | 5 mg/m³ |

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

Physical state : Solid

Appearance : A solid crayon-like marker.

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 %

## 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

| 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 |

| 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 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**

Likely routes of exposure : Inhalation;Skin and eye contact

## SECTION 12: Ecological information

### 12.1 Toxicity

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

| 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

| Tempilstik® 300 °F (149 °C), 302 °F (150 °C), 306 °F (152 °C), 313 °F (156 °C), 518 °F (270 °C), 525 °F (274 °C), 536 °F (280 °C) | |
|---|---|
| Persistence and degradability | May cause long-term adverse effects in the environment. |

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

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

### 12.3. Bioaccumulative potential

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

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

### 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 by sea**

No additional information available

**Air transport**

No additional information available

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

| 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 |

| 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**

| adipic acid (124-04-9) |
|---|
| Listed on the Canadian DSL (Domestic Substances List) inventory. |

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

**EU-Regulations**

| **adipic acid (124-04-9)** |
|---|
| Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances) |

| **1,1,1 Tris Ethane (27955-94-8)** |
|---|
| Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances) |

**National regulations**

| **Tempilstik® 300 °F (149 °C), 302 °F (150 °C), 306 °F (152 °C), 313 °F (156 °C), 518 °F (270 °C), 525 °F (274 °C), 536 °F (280 °C)** |
|---|
| All components are listed on the EEC inventory European Inventory of Existing Commercial Chemical Substances (EINECS).<br>All ingredients are listed in the Toxic Substances Control Act (TSCA).<br>All ingredients are listed on the Canadian Domestic Substances List (DSL) or Non-Domestic Substances List (NDSL). |

**15.3. US State regulations**

| **adipic acid (124-04-9)** |
|---|
| U.S. - Massachusetts - Right To Know List<br>U.S. - New Jersey - Right to Know Hazardous Substance List<br>U.S. - Pennsylvania - RTK (Right to Know) List |

## SECTION 16: Other information

Indication of changes : Original Document.

Data sources : ACGIH (American Conference of Governement Industrial Hygienists).

European Chemicals Agency (ECHA) C&L Inventory database. Accessed at http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database.

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.

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.

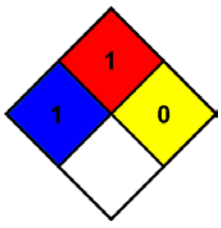
TSCA: Toxic Substances Control Act.

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-phrases:

| | |
|---|---|
| Aquatic Chronic 2 | Hazardous to the aquatic environment — Chronic Hazard, Category 2 |
| Aquatic Chronic 3 | Hazardous to the aquatic environment — Chronic Hazard, Category 3 |
| Eye Irrit. 2A | Serious eye damage/eye irritation, Category 2A |
| H319 | Causes serious eye irritation |
| H411 | Toxic to aquatic life with long lasting effects |
| H412 | Harmful to aquatic life with long lasting effects |


**SDS Prepared by:** The Redstone Group, LLC
6077 Frantz Rd.

Suite 206
Dublin, OH USA 43016
T 614-923-7472
www.redstonegrp.com


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*