

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations, Canada Hazardous Products Regulations (HPR) / Règlement sur les produits dangereux (RPD)
Issue date: 11/16/2015 Revision date: 8/14/2023 Supersedes: 12/29/2015 Version: 3.0

SECTION 1: Identification**1.1. Identification**

Product form : Mixture
Trade name : Tempilstik® 188°F (87 °C)

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Temperature indicator

1.3. Supplier

LA-CO Industries, Inc.
1201 Pratt Blvd.
Elk Grove Village, IL, 60007-5746
US
T 847-956-7600 - F 847-956-9885
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;
全国应急中心 0532 8388 9090

SECTION 2: Hazard(s) identification**2.1. Classification of the substance or mixture****GHS US classification**

Not classified

2.2. GHS Label elements, including precautionary statements**GHS US labeling**

No labeling applicable

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

1.94% of the mixture consists of ingredient(s) of unknown acute toxicity (Oral)
91.05% of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal)
99.78% of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Dust/Mist))

SECTION 3: Composition/Information on ingredients**3.1. Substances**

Not applicable

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3.2. Mixtures

Name	Product identifier	%	GHS US classification
2',4'-dimethylacetoacetanilide	CAS-No.: 97-36-9	80 - 95	Acute Tox. 4 (Oral), H302
Carbon black	CAS-No.: 1333-86-4	< 0.1	Carc. 2, H351

Full text of hazard classes and 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. Get medical advice/attention if you feel unwell.
First-aid measures after skin contact	: Gently wash with plenty of soap and water. Wash skin with plenty of water.
First-aid measures after eye contact	: In case of contact, immediately flush eyes with plenty of water. Rinse eyes with water as a precaution.
First-aid measures after ingestion	: Call a POISON CENTER or doctor/physician if you feel unwell. Call a poison center/doctor/physician if you feel unwell.

4.2. Most important symptoms and effects (acute and delayed)

No additional information available

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media	: Use extinguishing media appropriate for surrounding fire. Water spray. Dry powder. Foam.
Unsuitable extinguishing media	: None known.

5.2. Specific hazards arising from the chemical

Fire hazard	: No particular fire or explosion hazard.
Hazardous decomposition products in case of fire	: Toxic fumes may be released.

5.3. Special protective equipment and precautions for fire-fighters

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/flammable resistant/retardant clothing. EN469. Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Avoid creating or spreading dust.
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6.1.1. For non-emergency personnel

Protective equipment	: Wear suitable gloves.
Emergency procedures	: Ventilate spillage area. Evacuate unnecessary personnel.

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6.1.2. For emergency responders

- Protective equipment : Do not attempt to take action without suitable protective equipment. Wear suitable gloves. For further information refer to section 8: "Exposure controls/personal protection".
- Emergency procedures : Stop leak if safe to do so. Ventilate area.

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 : Mechanically recover the product. Sweep spilled substance into containers; if appropriate, moisten first to prevent dusting.
- Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

Section 13: disposal information. Section 7: safe handling. Section 8: personal protective equipment. For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid creating or spreading dust.
- Hygiene measures : Do not eat, drink or smoke when using this product. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Store in a well-ventilated place. Keep cool.
- Incompatible products : Strong acids. Strong bases. Strong oxidizers.
- Heat-ignition : Keep away from heat, sparks and flame.
- Information on mixed storage : Incompatible materials.
- Storage area : Store in dry, cool, well-ventilated area.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Tempilstik® 188°F (87 °C)	
No additional information available	
2',4'-dimethylacetoacetanilide (97-36-9)	
No additional information available	
Carbon black (1333-86-4)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Carbon black
ACGIH OEL TWA	3 mg/m ³ (I - Inhalable particulate matter)
Remark (ACGIH)	TLV® Basis: Bronchitis. Notations: A3 (Confirmed Animal Carcinogen with Unknown Relevance to Humans)

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Carbon black (1333-86-4)	
Regulatory reference	ACGIH 2022
USA - OSHA - Occupational Exposure Limits	
Local name	Carbon black
OSHA PEL TWA [1]	3.5 mg/m ³
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1
USA - NIOSH - Occupational Exposure Limits	
NIOSH REL TWA	3.5 mg/m ³
NIOSH REL STEL	0.1 mg/m ³

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.
Environmental exposure controls : Prevent leakage or spillage. Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

Avoid all unnecessary exposure.

Hand protection:

Use rubber gloves. EN374

Eye protection:

EN166. In case of dust production: protective goggles. Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

In case of inadequate ventilation wear respiratory protection. Use air-purifying respirator equipped with particulate filtering cartridges. EN 12083

Personal protective equipment symbol(s):



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.
Color : Variable
Odor : No data available
Odor threshold : No data available
pH : No data available
Melting point : 87 °C

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Freezing point	: Not applicable
Boiling point	: No data available
Flash point	: Not applicable
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Non flammable.
Vapor pressure	: No data available
Relative vapor density at 20°C	: No data available
Relative density	: No data available
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: Not applicable
Decomposition temperature	: No data available
Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: No data available
Explosion limits	: Not applicable
Explosive properties	: No data available
Oxidizing properties	: 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

Heat.

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 (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

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Unknown acute toxicity (GHS US)	1.94% of the mixture consists of ingredient(s) of unknown acute toxicity (Oral) 91.05% of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal) 99.78% of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Dust/Mist))
2',4'-dimethylacetoacetanilide (97-36-9)	
LD50 oral rat	1995 mg/kg
LC50 Inhalation - Rat	< mg/l
ATE US (oral)	1995 mg/kg
Carbon black (1333-86-4)	
LD50 oral rat	> 8000 mg/kg
LD50 dermal rabbit	> 8000 mg/kg Source: ECHA
LC50 Inhalation - Rat	> 4.6 mg/m ³ 4 h
ATE US (oral)	8000 mg/kg
Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Carbon black (1333-86-4)	
IARC group	2B - Possibly carcinogenic to humans
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Carbon black (1333-86-4)	
NOAEL (oral,rat,90 days)	> 1000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)
NOAEC (inhalation,rat,dust/mist/fume,90 days)	0.0011 mg/l air Animal: rat, Animal sex: male
Aspiration hazard	: Not classified
Viscosity, kinematic	: Not applicable
Likely routes of exposure	: Inhalation. Skin and eye contact.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

2',4'-dimethylacetoacetanilide (97-36-9)	
LC50 - Fish [1]	250 (250 – 350) mg/l
Carbon black (1333-86-4)	
LC50 - Fish [1]	> 1000 mg/l Source: NITE

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Carbon black (1333-86-4)	
EC50 72h - Algae [1]	> 10000 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
EC50 72h - Algae [2]	> 10000 mg/l Test organisms (species):
ErC50 algae	> 10000 mg/l Source: EHCA

12.2. Persistence and degradability

2',4'-dimethylacetoacetanilide (97-36-9)	
Biodegradation	25 % 28 d

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

12.3. Bioaccumulative potential

2',4'-dimethylacetoacetanilide (97-36-9)	
Partition coefficient n-octanol/water (Log Pow)	1.4

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.
Sewage disposal recommendations : Do not dispose of waste into sewer.
Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

SECTION 14: Transport information

In accordance with DOT / TDG / IMDG / IATA

DOT	TDG	IMDG	IATA
14.1. UN number			
Not regulated for transport			
14.2. Proper Shipping Name			
Not regulated.	Not regulated.	Not regulated.	Not regulated.
14.3. Transport hazard class(es)			
Not regulated.	Not regulated.	Not regulated.	Not regulated.
14.4. Packing group			
Not regulated.	Not regulated.	Not regulated.	Not regulated.

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DOT	TDG	IMDG	IATA
14.5. Environmental hazards			
Not regulated.	Not regulated.	Not regulated.	Not regulated.
No supplementary information available			

14.6. Special precautions for user

DOT

Not regulated.

TDG

Not regulated.

IMDG

Not regulated.

IATA

Not regulated.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

This product or mixture is not known to contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

15.2. International regulations

CANADA

2',4'-dimethylacetoacetanilide (97-36-9)

Listed on the Canadian DSL (Domestic Substances List)

Carbon black (1333-86-4)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

2',4'-dimethylacetoacetanilide (97-36-9)

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)

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National regulations

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All ingredients are listed on the Canadian Domestic Substances List (DSL) or Non-Domestic Substances List (NDSL).
All ingredients are listed in the Toxic Substances Control Act (TSCA).
All components are listed on the EEC inventory European Inventory of Existing Commercial Chemical Substances (EINECS).

2',4'-dimethylacetoacetanilide (97-36-9)

Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)
Listed on Taiwan National Chemical Inventory
Listed on the Inventory of Existing Chemical Substances Produced or Imported in China (IECSC).
Listed on the Japanese ENCS (Existing New Chemical Substances) inventory
Listed on KECL/KECI (Korean Existing Chemicals Inventory)

Carbon black (1333-86-4)

Listed on IARC (International Agency for Research on Cancer)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)
Listed on Taiwan National Chemical Inventory
Listed on KECL/KECI (Korean Existing Chemicals Inventory)
Listed on the Japanese ENCS (Existing New Chemical Substances) inventory
Listed on the Inventory of Existing Chemical Substances Produced or Imported in China (IECSC).
Listed on the Japanese ISHL (Industrial Safety and Health Law)
Listed on KECI (Korean Existing Chemicals Inventory)
Listed on the TCSI (Taiwan Chemical Substance Inventory)
Listed on INSQ (Mexican National Inventory of Chemical Substances)

15.3. US State regulations



WARNING:

This product can expose you to Carbon black (airborne, unbound particles of respirable size), which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations, Canada Hazardous Products Regulations (HPR) / Règlement sur les produits dangereux (RPD)

Revision date

: 8/14/2023

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>. 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>.

Other information

: None.

Full text of H-phrases

H302	Harmful if swallowed
H351	Suspected of causing cancer

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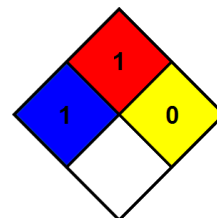
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Abbreviations and acronyms	
	ATE: Acute Toxicity Estimate
	CAS (Chemical Abstracts Service) number
	CLP: Classification, Labelling, Packaging.
	EC50: Environmental Concentration associated with a response by 50% of the test population.
	GHS: Globally 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 Weighted Average
	TSCA: Toxic Substances Control Act

NFPA health hazard : 1 - Materials that, under emergency conditions, can cause significant irritation.

NFPA fire hazard : 1 - Materials that must be preheated before ignition can occur.

NFPA reactivity : 0 - Material that in themselves are normally stable, even under fire conditions.



Safety Data Sheet (SDS), USA

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.