

# SAFETY DATA SHEET

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Revision Number 1

This document complies with the US OSHA Hazard Communication Standard (29 CFR 1910.1200), Canada WHMIS 2015 which includes the amended Hazardous Products Act (HPA) and the Hazardous Products Regulation (HPR), and Mexico's NMX-R-019-SC-2011.

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

### GHS product identifier

**Product Name** CA-40 LEW1 (US)

### Other means of identification

**Product Code(s)** 800072

**Synonyms** None

### Recommended use of the chemical and restrictions on use

**Recommended Use** Solder mask part B

**Uses advised against** No information available

### Supplier's details

**Initial Supplier**  
Canadian address required

**Supplier Address**  
Taiyo America, Inc.  
2675 Antler Drive  
Carson City, NV 89701  
TEL: 775-885-9959

### Emergency telephone number

**Emergency Telephone Number** 775-885-9959

## 2. HAZARDS IDENTIFICATION

### Classification

This product is considered hazardous according to the criteria set within the US OSHA Hazard Communication Standard (29 CFR 1910.1200), Canada WHMIS 2015 which includes the amended Hazardous Products Act (HPA) and the Hazardous Products Regulation (HPR), and Mexico's NMX-R-019-SC-2011.

Skin Corrosion/Irritation	Category 2
Serious Eye Damage/Eye Irritation	Category 2
Skin Sensitization	Category 1
Carcinogenicity	Category 2
Flammable liquids	Category 4

### Label Elements

**Warning**

**Hazard Statements**

Causes skin irritation  
Causes serious eye irritation  
May cause an allergic skin reaction  
Suspected of causing cancer.  
Combustible liquid.

**Physical and Health Hazards Not Otherwise Classified**

Not applicable.

**Precautionary Statements****Prevention**

- Obtain special instructions before use.
- Do not handle until all safety precautions have been read and understood.
- Use personal protective equipment as required.
- Wash face, hands and any exposed skin thoroughly after handling.
- Avoid breathing dust/fume/gas/mist/vapors/spray.
- Contaminated work clothing should not be allowed out of the workplace.
- Keep away from heat/sparks/open flames/hot surfaces - No smoking.
- Wear protective gloves/protective clothing/eye protection/face protection.

**General Advice**

- If exposed or concerned: Get medical attention/advice
- Specific treatment (see supplemental first aid instructions on this label)

**Eyes**

- IF IN EYES: 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.

**Skin**

- IF ON SKIN: Wash with plenty of soap and water.
- Take off contaminated clothing and wash before reuse.
- If skin irritation or rash occurs: Get medical advice/attention.

**Fire**

- In case of fire: Use CO<sub>2</sub>, dry chemical, or foam for extinction.

**Storage**

- Store locked up.
- Store in a well-ventilated place. Keep cool.

**Disposal**

- Dispose of contents/container to an approved waste disposal plant.

**Other information**

Harmful to aquatic life with long lasting effects.

25.72% of the mixture consists of ingredient(s) of unknown toxicity.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical Name	CAS-No	Weight %	Hazardous Material Information Review Act registry number (HMIRA registry #)	Date HMIRA filed and date exemption granted (if applicable)
Trimethylolpropane triacrylate	15625-89-5	12.79	-	-
4,4'-Bis(2,3-epoxypropoxy)-3,3',5,5'-tetramethyl (1,1'-biphenyl)	85954-11-6	12.79	-	-
Silica, amorphous, fumed, crystal-free	112945-52-5	3.84	-	-
Dipropylene glycol monomethyl ether	34590-94-8	1.28	-	-

#### 4. FIRST AID MEASURES

##### Description of necessary first-aid measures

<b>General Advice</b>	If symptoms persist, call a physician. Do not breathe dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing.
<b>Eye Contact</b>	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. If symptoms persist, call a physician.
<b>Skin Contact</b>	Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. If skin irritation persists, call a physician.
<b>Inhalation</b>	Move to fresh air. If breathing is irregular or stopped, administer artificial respiration. If symptoms persist, call a physician.
<b>Ingestion</b>	Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Drink plenty of water. If symptoms persist, call a physician.
<b>Protection of First-aiders</b>	Use personal protective equipment.

##### Most important symptoms/effects, acute and delayed

**Most Important Symptoms/Effects** May cause allergic skin reaction. Itching. Rashes. Eye irritation/reactions.

##### Indication of immediate medical attention and special treatment needed, if necessary

**Notes to Physician** Treat symptomatically. May cause sensitization of susceptible persons.

#### 5. FIRE-FIGHTING MEASURES

<b><u>Suitable Extinguishing Media</u></b>	Water spray. Carbon dioxide (CO <sub>2</sub> ). Dry powder. Dry chemical.
<b><u>Unsuitable Extinguishing Media</u></b>	No information available.
<b><u>Specific Hazards Arising from the Chemical</u></b>	Combustible liquid. Vapors may travel to source of ignition and flash back. Thermal decomposition can lead to release of irritating gases and vapors. In the event of fire and/or explosion do not breathe fumes. Risk of ignition. Keep product and empty container away from heat and sources of ignition. Product is or contains a sensitizer. May cause sensitization by skin contact.
<b>Explosion Data</b>	
<b>Sensitivity to Mechanical Impact</b>	None.
<b>Sensitivity to Static Discharge</b>	Yes.
<b><u>Protective Equipment and Precautions for Firefighters</u></b>	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

#### 6. ACCIDENTAL RELEASE MEASURES

##### Personal precautions, protective equipment and emergency procedures

**Personal Precautions** Evacuate personnel to safe areas. Use personal protective equipment. Avoid contact with

skin, eyes and clothing. Keep people away from and upwind of spill/leak. Remove all sources of ignition. Take precautionary measures against static discharges. Pay attention to flashback.

### Environmental Precautions

#### Environmental Precautions

Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Do not flush into surface water or sanitary sewer system. Prevent entry into waterways, sewers, basements or confined areas. See Section 12 for additional Ecological Information. Avoid release to the environment.

### Methods and materials for containment and cleaning up

#### Methods for Containment

Prevent further leakage or spillage if safe to do so.

#### Methods for Cleaning Up

Dam up. Take up with sand or other noncombustible absorbent material and place into containers for later disposal. Clean contaminated surface thoroughly.

## 7. HANDLING AND STORAGE

### Precautions for safe handling

#### Handling

Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Remove and wash contaminated clothing before re-use. Do not breathe vapors or spray mist. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors). In case of insufficient ventilation, wear suitable respiratory equipment. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded. Keep away from heat, sparks and open flame. No smoking.

### Conditions for safe storage, including any incompatibilities

#### Storage

Keep in properly labeled containers. Keep out of the reach of children. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat and sources of ignition.

#### Incompatible Products

Strong oxidizing agents.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### Control parameters

#### Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Silica, amorphous, fumed, crystal-free 112945-52-5	10 mg/m <sup>3</sup>	TWA: 20 mppcf; ((80)/(% SiO <sub>2</sub> )) mg/m <sup>3</sup> )	IDLH: 3000 mg/m <sup>3</sup> TWA: 6 mg/m <sup>3</sup>
Dipropylene glycol monomethyl ether 34590-94-8	STEL: 150 ppm TWA: 100 ppm S*	TWA: 100 ppm TWA: 600 mg/m <sup>3</sup> (vacated) TWA: 100 ppm (vacated) TWA: 600 mg/m <sup>3</sup> (vacated) STEL: 150 ppm (vacated) STEL: 900 mg/m <sup>3</sup> (vacated) S* S*	IDLH: 600 ppm TWA: 100 ppm TWA: 600 mg/m <sup>3</sup> STEL: 150 ppm STEL: 900 mg/m <sup>3</sup>
Naphthalene 91-20-3	TWA: 10 ppm S*	TWA: 10 ppm TWA: 50 mg/m <sup>3</sup> (vacated) TWA: 10 ppm (vacated) TWA: 50 mg/m <sup>3</sup> (vacated) STEL: 15 ppm (vacated) STEL: 75 mg/m <sup>3</sup>	IDLH: 250 ppm TWA: 10 ppm TWA: 50 mg/m <sup>3</sup> STEL: 15 ppm STEL: 75 mg/m <sup>3</sup>
1,2,4-trimethylbenzene 95-63-6	TWA: 25 ppm	(vacated) TWA: 25 ppm (vacated) TWA: 125 mg/m <sup>3</sup>	TWA: 25 ppm TWA: 125 mg/m <sup>3</sup>

*Immediately Dangerous to Life or Health. ACGIH TLV: American Conference of Governmental Industrial Hygienists - Threshold Limit Value. OSHA PEL: Occupational Safety and Health Administration - Permissible Exposure Limits. NIOSH IDLH:*

**Other Exposure Guidelines** Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

### Appropriate engineering controls

**Engineering Measures** Showers  
Eyewash stations  
Ventilation systems

### Individual protection measures, such as personal protective equipment

**Eye/Face Protection** Goggles.  
**Skin and Body Protection** Lightweight protective clothing. Protective gloves.  
**Respiratory Protection** If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn.

**Hygiene Measures** When using, do not eat, drink or smoke. Provide regular cleaning of equipment, work area and clothing.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

<b>Physical State</b>	Viscous liquid.	<b>Appearance</b>	Cream.
<b>Odor</b>	Mild Solvent.	<b>Odor Threshold</b>	No information available.

<u>Property</u>	<u>Values</u>	<u>Remarks/ - Method</u>
<b>pH</b>	No data available	None known
<b>Melting Point/Range</b>	No data available	None known
<b>Boiling Point/Boiling Range</b>	No data available	None known
<b>Flash Point</b>	78 °C / 172.4 °F	None known
<b>Evaporation rate</b>	No data available	None known
<b>Flammability (solid, gas)</b>	No data available	None known
<b>Flammability Limits in Air</b>		
upper flammability limit	No data available	
lower flammability limit	No data available	
<b>Vapor Pressure</b>	No data available	None known
<b>Vapor Density</b>	No data available	None known
<b>Specific Gravity</b>	1.37	None known
<b>Water Solubility</b>	No data available	None known
<b>Solubility in other solvents</b>	No data available	None known
<b>Partition coefficient: n-octanol/water</b>	No data available	None known
<b>Autoignition Temperature</b>	No data available	None known
<b>Decomposition Temperature</b>	No data available	None known
<b>Viscosity</b>	No data available	None known

**Flammable Properties** Combustible material: may burn but does not ignite readily

**Explosive Properties** No data available

**Oxidizing Properties** No data available

### Other information

<b>VOC Content (%)</b>	3
<b>VOC (g/l)</b>	43 gm/l

## 10. STABILITY AND REACTIVITY

**Reactivity** No data available.

**Chemical stability** Stable under recommended storage conditions.

<b>Possibility of hazardous reactions</b>	None under normal processing.
<b>Hazardous Polymerization</b>	Hazardous polymerization does not occur.
<b>Conditions to avoid</b>	Incompatible products. Heat, flames and sparks.
<b>Incompatible materials</b>	Strong oxidizing agents.
<b>Hazardous decomposition products</b>	Carbon oxides. Nitrogen oxides (NOx).

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

#### Product Information

<b>Inhalation</b>	There is no data available for this product.
<b>Eye Contact</b>	Causes serious eye irritation.
<b>Skin Contact</b>	Causes skin irritation. May cause allergic skin reaction.
<b>Ingestion</b>	There is no data available for this product.

### Numerical measures of toxicity - Product

**Unknown acute toxicity** 25.72% of the mixture consists of ingredient(s) of unknown toxicity.

*The following values are calculated based on chapter 3.1 of the GHS document:*

<b>LD50 Oral</b>	15837 mg/kg; Acute toxicity estimate
<b>LD50 Dermal</b>	27585 mg/kg; Acute toxicity estimate mg/L

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Trimethylolpropane triacrylate	> 5000 mg/kg ( Rat )	= 5000 mg/kg ( Rabbit )	-
Silica, amorphous, fumed, crystal-free	= 3160 mg/kg ( Rat )	-	-
Dipropylene glycol monomethyl ether	= 5400 µL/kg ( Rat )	= 9500 mg/kg ( Rabbit )	-

### Symptoms related to the physical, chemical and toxicological characteristics

**Symptoms** No information available.

### Delayed and immediate effects and also chronic effects from short and long term exposure

<b>Respiratory or Skin Sensitization</b>	May cause sensitization of susceptible persons. May cause sensitization by skin contact.
<b>Germ Cell Mutagenicity</b>	No information available.
<b>Carcinogenicity</b>	Contains a known or suspected carcinogen. Suspected of causing cancer.

Chemical Name	ACGIH	IARC	NTP	OSHA
Silica, amorphous, fumed, crystal-free		Group 3		

#### IARC: (International Agency for Research on Cancer)

Group 3 - Not Classifiable as to its Carcinogenicity to Humans

<b>Reproductive Toxicity</b>	No information available.
<b>STOT - single exposure</b>	No information available.
<b>STOT - repeated exposure</b>	No information available.
<b>Chronic Toxicity</b>	Avoid repeated exposure. Repeated contact may cause allergic reactions in very susceptible persons.
<b>Target Organ Effects</b>	Respiratory system. Eyes. Skin.
<b>Aspiration Hazard</b>	No information available.

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity**

Harmful to aquatic life with long lasting effects.

Chemical Name	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)
Silica, amorphous, fumed, crystal-free 112945-52-5	EC50 72 h: = 440 mg/L (Pseudokirchneriella subcapitata)	LC50 96 h: = 5000 mg/L static (Brachydanio rerio)		EC50 48 h: = 7600 mg/L (Ceriodaphnia dubia)
Dipropylene glycol monomethyl ether 34590-94-8		LC50 96 h: > 10000 mg/L static (Pimephales promelas)		LC50 48 h: = 1919 mg/L (Daphnia magna)

**Persistence and Degradability** No information available.**Bioaccumulation**

Chemical Name	Log Pow
Dipropylene glycol monomethyl ether	-0.064

**Mobility** No information available.**Other Adverse Effects** No information available.**13. DISPOSAL CONSIDERATIONS****Waste Disposal Methods** Should not be released into the environment. Dispose of in accordance with local regulations.**Contaminated Packaging** Do not re-use empty containers.**14. TRANSPORT INFORMATION****Note:** According to 49 CFR §173.150(f)(1), this material should be reclassified as NA1993, Combustible Liquid, NOS if it is shipped in bulk.**DOT** Not regulated**TDG** Not regulated**MEX** Not regulated**IATA** Not regulated**IMDG/IMO** Not regulated**15. REGULATORY INFORMATION****International Regulations****Ozone depleting substances** Not applicable**Persistent Organic Pollutants** Not applicable**Hazardous Waste** Not applicable**The Rotterdam Convention (Prior Informed Consent)** Not applicable**International Convention for the Prevention of Pollution from Ships (MARPOL)** Not applicable**International Inventories****TSCA** Complies**DSL** Not determined**EINECS** Complies**ELINCS** Complies

**Legend**

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

**U.S. Federal Regulations**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

**SARA 311/312 Hazard Categories**

Acute Health Hazard	Yes
Chronic Health Hazard	Yes
Fire Hazard	Yes
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

**Clean Water Act**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

**CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

**U.S. State Regulations****California Proposition 65**

This product contains the following Proposition 65 chemicals:

Chemical Name	CAS-No	California Prop. 65
Naphthalene	91-20-3	Carcinogen

**U.S. State Right-to-Know Regulations**

"X" designates that the ingredients are listed on the state right to know list.

Chemical Name	New Jersey	Massachusetts	Pennsylvania	Illinois	Rhode Island
Silica, amorphous, fumed, crystal-free	X	X	X		
Melamine	X	X	X		
Dipropylene glycol monomethyl ether	X	X	X	X	X
Naphthalene	X	X	X	X	
1,2,4 Trimethylbenzene	X	X	X	X	X

**U.S. EPA Label Information**

EPA Pesticide Registration Number Not applicable

**16. OTHER INFORMATION**

**NFPA** Health Hazard 2 Flammability 2 Instability 0 Physical and Chemical Hazards -

**HMIS** Health Hazard 2\* Flammability 2 Physical Hazard 0 Personal Protection X

\*Indicates a chronic health hazard.

**Prepared By**

Product Stewardship  
23 British American Blvd.  
Latham, NY 12110  
1-800-572-6501



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**General Disclaimer**

The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

**End of Safety Data Sheet**