



## Safety Data Sheet

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### SECTION 1: Identification

#### 1.1. Product identifier

3M™ Light Cure Adhesive LC-1215

#### Product Identification Numbers

LA-M100-0592-1, 62-4149-8032-6, XA-0041-5321-0

#### 1.2. Recommended use and restrictions on use

**Recommended use**  
Adhesive

#### 1.3. Supplier's details

|                      |                                         |
|----------------------|-----------------------------------------|
| <b>MANUFACTURER:</b> | 3M                                      |
| <b>DIVISION:</b>     | Electronic Materials Solutions Division |
| <b>ADDRESS:</b>      | 3M Center, St. Paul, MN 55144-1000, USA |
| <b>Telephone:</b>    | 1-888-3M HELPS (1-888-364-3577)         |

#### 1.4. Emergency telephone number

1-800-364-3577 or (651) 737-6501 (24 hours)

### SECTION 2: Hazard identification

#### 2.1. Hazard classification

Serious Eye Damage/Irritation: Category 2B.  
Skin Sensitizer: Category 1.

#### 2.2. Label elements

**Signal word**  
Warning

**Symbols**  
Exclamation mark |

**Pictograms**

**Hazard Statements**

Causes eye irritation.

May cause an allergic skin reaction.

**Precautionary Statements****Prevention:**

Avoid breathing dust/fume/gas/mist/vapors/spray.

Wear protective gloves.

Wash thoroughly after handling.

Contaminated work clothing must not be allowed out of the workplace.

**Response:**

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.

IF ON SKIN: Wash with plenty of soap and water.

If skin irritation or rash occurs: Get medical advice/attention.

Wash contaminated clothing before reuse.

**Disposal:**

Dispose of contents/container in accordance with applicable local/regional/national/international regulations.

**2.3. Hazards not otherwise classified**

None.

21% of the mixture consists of ingredients of unknown acute oral toxicity.

## SECTION 3: Composition/information on ingredients

| Ingredient                                       | C.A.S. No.    | % by Wt |
|--------------------------------------------------|---------------|---------|
| phenoxy ethyl acrylate                           | 48145-04-6    | 60 - 85 |
| acrylate oligomer                                | Trade Secret* | 15 - 40 |
| benzil dimethyl ketal                            | 24650-42-8    | 1 - 5   |
| bis(2,4,6-trimethylbenzoyl)phenylphosphine oxide | 162881-26-7   | 1 - 5   |
| methacrylate ester derivative                    | Trade Secret* | 1 - 5   |

\*The specific chemical identity and/or exact percentage (concentration) of this composition has been withheld as a trade secret.

## SECTION 4: First aid measures

**4.1. Description of first aid measures****Inhalation:**

Remove person to fresh air. If you feel unwell, get medical attention.

**Skin Contact:**

Immediately wash with soap and water. Remove contaminated clothing and wash before reuse. If signs/symptoms develop, get medical attention.

**Eye Contact:**

Flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. If signs/symptoms persist, get medical attention.

**If Swallowed:**

Rinse mouth. If you feel unwell, get medical attention.

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

See Section 11.1. Information on toxicological effects.

**4.3. Indication of any immediate medical attention and special treatment required**

Not applicable

## SECTION 5: Fire-fighting measures

**5.1. Suitable extinguishing media**

In case of fire: Use a fire fighting agent suitable for ordinary combustible material such as water or foam to extinguish.

**5.2. Special hazards arising from the substance or mixture**

Closed containers exposed to heat from fire may build pressure and explode.

**Hazardous Decomposition or By-Products**

**Substance**

Carbon monoxide

Carbon dioxide

**Condition**

During Combustion

During Combustion

**5.3. Special protective actions for fire-fighters**

No special protective actions for fire-fighters are anticipated.

## SECTION 6: Accidental release measures

**6.1. Personal precautions, protective equipment and emergency procedures**

Evacuate area. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Warning! A motor could be an ignition source and could cause flammable gases or vapors in the spill area to burn or explode. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

**6.2. Environmental precautions**

Avoid release to the environment. For larger spills, cover drains and build dikes to prevent entry into sewer systems or bodies of water.

**6.3. Methods and material for containment and cleaning up**

Contain spill. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Collect as much of the spilled material as possible. Place in a closed container approved for transportation by appropriate authorities. Clean up residue with an appropriate solvent selected by a qualified and authorized person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and SDS. Seal the container. Dispose of collected material as soon as possible.

## SECTION 7: Handling and storage

**7.1. Precautions for safe handling**

For industrial or professional use only. Avoid breathing dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wash contaminated clothing before reuse. Avoid contact with oxidizing agents (eg. chlorine, chromic acid etc.)

**7.2. Conditions for safe storage including any incompatibilities**

Store away from heat. Store away from oxidizing agents.

**SECTION 8: Exposure controls/personal protection****8.1. Control parameters****Occupational exposure limits**

If a component is disclosed in section 3 but does not appear in the table below, an occupational exposure limit is not available for the component.

| <b>Ingredient</b>     | <b>C.A.S. No.</b> | <b>Agency</b> | <b>Limit type</b> | <b>Additional Comments</b> |
|-----------------------|-------------------|---------------|-------------------|----------------------------|
| benzil dimethyl ketal | 24650-42-8        | CMRG          | TWA:10 mg/m3      |                            |

ACGIH : American Conference of Governmental Industrial Hygienists

AIHA : American Industrial Hygiene Association

CMRG : Chemical Manufacturer's Recommended Guidelines

OSHA : United States Department of Labor - Occupational Safety and Health Administration

TWA: Time-Weighted-Average

STEL: Short Term Exposure Limit

CEIL: Ceiling

**8.2. Exposure controls****8.2.1. Engineering controls**

Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapors/spray. If ventilation is not adequate, use respiratory protection equipment.

**8.2.2. Personal protective equipment (PPE)****Eye/face protection**

Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:

Indirect Vented Goggles

**Skin/hand protection**

Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the results of an exposure assessment. Selection should be based on use factors such as exposure levels, concentration of the substance or mixture, frequency and duration, physical challenges such as temperature extremes, and other use conditions. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible gloves/protective clothing.

Gloves made from the following material(s) are recommended: Polymer laminate

If this product is used in a manner that presents a higher potential for exposure (eg. spraying, high splash potential etc.), then use of protective coveralls may be necessary. Select and use body protection to prevent contact based on the results of an exposure assessment. The following protective clothing material(s) are recommended: Apron - polymer laminate

**Respiratory protection**

None required.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

|                                         |                                         |
|-----------------------------------------|-----------------------------------------|
| General Physical Form:                  | Liquid                                  |
| Specific Physical Form:                 | Viscous                                 |
| Odor, Color, Grade:                     | Blue; slight acrylic odor               |
| Odor threshold                          | No Data Available                       |
| pH                                      | Not Applicable                          |
| Melting point                           | Not Applicable                          |
| Boiling Point                           | >=94 °C                                 |
| Flash Point                             | >=94 °C [Test Method: Closed Cup]       |
| Evaporation rate                        | Not Applicable                          |
| Flammability (solid, gas)               | Not Applicable                          |
| Flammable Limits(LEL)                   | No Data Available                       |
| Flammable Limits(UEL)                   | No Data Available                       |
| Vapor Pressure                          | <=0.1 mmHg [@ 20 °C]                    |
| Vapor Density                           | Not Applicable                          |
| Density                                 | 1.13 g/ml                               |
| Specific Gravity                        | 1.13 [Ref Std: WATER=1]                 |
| Solubility in Water                     | Negligible                              |
| Solubility- non-water                   | No Data Available                       |
| Partition coefficient: n-octanol/ water | No Data Available                       |
| Autoignition temperature                | No Data Available                       |
| Decomposition temperature               | No Data Available                       |
| Viscosity                               | Approximately 120 centipoise [@ 20 °C ] |
| Volatile Organic Compounds              | Not Applicable                          |
| Percent volatile                        | 0 %                                     |
| VOC Less H2O & Exempt Solvents          | Not Applicable                          |

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

This material may be reactive with certain agents under certain conditions - see the remaining headings in this section.

### 10.2. Chemical stability

Stable.

Contains inhibitor. Loss of inhibitor may render material unstable. Refer to Precautionary Storage and Handling Section.

### 10.3. Possibility of hazardous reactions

Hazardous polymerization may occur.

### 10.4. Conditions to avoid

Heat

### 10.5. Incompatible materials

Strong oxidizing agents

Reducing agents

### 10.6. Hazardous decomposition products

#### Substance

None known.

#### Condition

Refer to section 5.2 for hazardous decomposition products during combustion.

## SECTION 11: Toxicological information

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. In addition, toxicological data on ingredients may not be reflected in the material classification and/or the signs and symptoms of exposure, because an ingredient may be present below the threshold for labeling, an ingredient may not be available for exposure, or the data may not be relevant to the material as a whole.

### 11.1. Information on Toxicological effects

#### Signs and Symptoms of Exposure

Based on test data and/or information on the components, this material may produce the following health effects:

##### Inhalation:

No health effects are expected.

##### Skin Contact:

Contact with the skin during product use is not expected to result in significant irritation. Allergic Skin Reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

Photosensitization: Signs/symptoms may include a sunburn-like reaction such as blistering, redness, swelling, and itching from minor exposure to sunlight.

##### Eye Contact:

Moderate Eye Irritation: Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

##### Ingestion:

No known health effects.

#### Toxicological Data

If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

##### Acute Toxicity

| Name                                             | Route     | Species | Value                                           |
|--------------------------------------------------|-----------|---------|-------------------------------------------------|
| Overall product                                  | Ingestion |         | No data available; calculated ATE > 5,000 mg/kg |
| phenoxy ethyl acrylate                           | Dermal    | Rat     | LD50 > 2,000 mg/kg                              |
| phenoxy ethyl acrylate                           | Ingestion | Rat     | LD50 > 5,000 mg/kg                              |
| bis(2,4,6-trimethylbenzoyl)phenylphosphine oxide | Dermal    | Rat     | LD50 > 2,000 mg/kg                              |
| bis(2,4,6-trimethylbenzoyl)phenylphosphine oxide | Ingestion | Rat     | LD50 > 2,000 mg/kg                              |
| benzil dimethyl ketal                            | Dermal    | Rat     | LD50 > 7,100 mg/kg                              |
| benzil dimethyl ketal                            | Ingestion | Rat     | LD50 > 6,000 mg/kg                              |

ATE = acute toxicity estimate

##### Skin Corrosion/Irritation

| Name                                             | Species | Value                     |
|--------------------------------------------------|---------|---------------------------|
| phenoxy ethyl acrylate                           | Rabbit  | No significant irritation |
| bis(2,4,6-trimethylbenzoyl)phenylphosphine oxide | Rabbit  | No significant irritation |
| benzil dimethyl ketal                            | Rabbit  | No significant irritation |

##### Serious Eye Damage/Irritation

| Name                   | Species | Value             |
|------------------------|---------|-------------------|
| phenoxy ethyl acrylate | Rabbit  | Moderate irritant |

|                                                  |        |                           |
|--------------------------------------------------|--------|---------------------------|
| bis(2,4,6-trimethylbenzoyl)phenylphosphine oxide | Rabbit | No significant irritation |
| benzil dimethyl ketal                            | Rabbit | No significant irritation |

**Skin Sensitization**

| Name                                             | Species    | Value           |
|--------------------------------------------------|------------|-----------------|
| phenoxy ethyl acrylate                           | Guinea pig | Sensitizing     |
| bis(2,4,6-trimethylbenzoyl)phenylphosphine oxide | Guinea pig | Sensitizing     |
| benzil dimethyl ketal                            | Guinea pig | Not sensitizing |

**Photosensitization**

| Name                  | Species    | Value       |
|-----------------------|------------|-------------|
| benzil dimethyl ketal | Guinea pig | Sensitizing |

**Respiratory Sensitization**

For the component/components, either no data are currently available or the data are not sufficient for classification.

**Germ Cell Mutagenicity**

| Name                                             | Route    | Value         |
|--------------------------------------------------|----------|---------------|
| bis(2,4,6-trimethylbenzoyl)phenylphosphine oxide | In Vitro | Not mutagenic |
| benzil dimethyl ketal                            | In Vitro | Not mutagenic |

**Carcinogenicity**

For the component/components, either no data are currently available or the data are not sufficient for classification.

**Reproductive Toxicity****Reproductive and/or Developmental Effects**

For the component/components, either no data are currently available or the data are not sufficient for classification.

**Target Organ(s)****Specific Target Organ Toxicity - single exposure**

For the component/components, either no data are currently available or the data are not sufficient for classification.

**Specific Target Organ Toxicity - repeated exposure**

| Name                  | Route     | Target Organ(s)                              | Value                                                                        | Species | Test Result         | Exposure Duration |
|-----------------------|-----------|----------------------------------------------|------------------------------------------------------------------------------|---------|---------------------|-------------------|
| benzil dimethyl ketal | Dermal    | photoirritation                              | All data are negative                                                        | Mouse   | NOAEL Not available | not available     |
| benzil dimethyl ketal | Ingestion | liver                                        | Some positive data exist, but the data are not sufficient for classification | Rat     | NOAEL 138 mg/kg/day | 3 months          |
| benzil dimethyl ketal | Ingestion | hematopoietic system   kidney and/or bladder | Some positive data exist, but the data are not sufficient for classification | Rat     | NOAEL 581 mg/kg/day | 3 months          |
| benzil dimethyl ketal | Ingestion | auditory system   eyes                       | All data are negative                                                        | Rat     | NOAEL 581 mg/kg/day | 3 months          |

**Aspiration Hazard**

For the component/components, either no data are currently available or the data are not sufficient for classification.

Please contact the address or phone number listed on the first page of the SDS for additional toxicological information on this material and/or its components.

## SECTION 12: Ecological information

### Ecotoxicological information

Please contact the address or phone number listed on the first page of the SDS for additional ecotoxicological information on this material and/or its components.

### Chemical fate information

Please contact the address or phone number listed on the first page of the SDS for additional chemical fate information on this material and/or its components.

## SECTION 13: Disposal considerations

### 13.1. Disposal methods

Dispose of contents/ container in accordance with the local/regional/national/international regulations.

Dispose of completely cured (or polymerized) material in a permitted industrial waste facility. As a disposal alternative, incinerate uncured product in a permitted waste incineration facility. Proper destruction may require the use of additional fuel during incineration processes. If no other disposal options are available, waste product that has been completely cured or polymerized may be placed in a landfill properly designed for industrial waste. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities.

**EPA Hazardous Waste Number (RCRA):** Not regulated

## SECTION 14: Transport Information

Not regulated per U.S. DOT, IATA or IMO.

*These transportation classifications are provided as a customer service. As the shipper YOU remain responsible for complying with all applicable laws and regulations, including proper transportation classification and packaging. 3M transportation classifications are based on product formulation, packaging, 3M policies and 3M understanding of applicable current regulations. 3M does not guarantee the accuracy of this classification information. This information applies only to transportation classification and **not the packaging, labeling, or marking requirements**. The original 3M package is certified for U.S. ground shipment only. If you are shipping by air or ocean, the package may not meet applicable regulatory requirements.*

## SECTION 15: Regulatory information

### 15.1. US Federal Regulations

Contact 3M for more information.

#### 311/312 Hazard Categories:

Fire Hazard - No    Pressure Hazard - No    Reactivity Hazard - Yes    Immediate Hazard - Yes    Delayed Hazard - No

**Section 313 Toxic Chemicals subject to the reporting requirements of that section and 40 CFR part 372 (EPCRA):**

| <u><b>Ingredient</b></u>               | <u><b>C.A.S. No</b></u> | <u><b>% by Wt</b></u> |
|----------------------------------------|-------------------------|-----------------------|
| phenoxy ethyl acrylate (GLYCOL ETHERS) | 48145-04-6              | 60 - 85               |

## 15.2. State Regulations

Contact 3M for more information.

## 15.3. Chemical Inventories

The components of this material are in compliance with the China "Measures on Environmental Management of New Chemical Substance". Certain restrictions may apply. Contact the selling division for additional information.

The components of this material are in compliance with the provisions of Japan Chemical Substance Control Law. Certain restrictions may apply. Contact the selling division for additional information.

The components of this product are in compliance with the chemical notification requirements of TSCA.

Contact 3M for more information.

## 15.4. International Regulations

Contact 3M for more information.

**This SDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200.**

## SECTION 16: Other information

### NFPA Hazard Classification

**Health: 2 Flammability: 1 Instability: 1 Special Hazards: None**

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

### HMIS Hazard Classification

**Health: 2 Flammability: 1 Physical Hazard: 1 Personal Protection: X - See PPE section.**

Hazardous Material Identification System (HMIS® III) hazard ratings are designed to inform employees of chemical hazards in the workplace. These ratings are based on the inherent properties of the material under expected conditions of normal use and are not intended for use in emergency situations. HMIS® III ratings are to be used with a fully implemented HMIS® III program. HMIS® is a registered mark of the American Coatings Association (ACA).

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