# Safety Data Sheet



**Revision Number: 003.0** Issue date: 05/10/2021

## 1. PRODUCT AND COMPANY IDENTIFICATION

Product name: **LOCTITE 4311 LIGHT CURE** 

ADHESIVE known as LOCTITE®

4311™ LIGHT CURE AD

Product type/use: Cyanoacrylate Restriction of Use: None identified

Company address: Henkel Corporation One Henkel Way

Rocky Hill, Connecticut 06067

IDH number: 1401791

Item number: 1401791 Region: **United States** 

Contact information:

Telephone: +1 (860) 571-5100 MEDICAL EMERGENCY Phone: Poison Control Center

1-877-671-4608 (toll free) or 1-303-592-1711 TRANSPORT EMERGENCY Phone: CHEMTREC 1-800-424-9300 (toll free) or 1-703-527-3887

Internet: www.henkelna.com

#### HAZARDS IDENTIFICATION

**EMERGENCY OVERVIEW** 

WARNING: BONDS SKIN IN SECONDS.

COMBUSTIBLE LIQUID. CAUSES EYE IRRITATION.

MAY CAUSE RESPIRATORY IRRITATION.

SUSPECTED OF DAMAGING FERTILITY OR THE UNBORN CHILD.

HAZARD CLASS	HAZARD CATEGORY
FLAMMABLE LIQUID	4
EYE IRRITATION	2B
REPRODUCTIVE TOXICITY	2
SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE	3

#### PICTOGRAM(S)



#### **Precautionary Statements**

Prevention:

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat, sparks, open flames, hot surfaces - no smoking. Avoid breathing vapors, mist, or spray. Wash affected area thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear protective gloves, clothing, eye and face protection.

Response:

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF exposed or concerned: Get medical attention. If eye irritation persists: Get medical attention. In case of fire: Use foam, dry chemical or carbon dioxide to extinguish.

Storage:

Store in a well-ventilated place. Keep container tightly closed. Store in a well-ventilated place.

Keep cool. Store locked up.

Disposal:

Dispose of contents and/or container according to Federal, State/Provincial and local

governmental regulations.

Classification complies with OSHA Hazard Communication Standard (29 CFR 1910.1200) and is consistent with the provisions of the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

IDH number: 1401791 Product name: LOCTITE 4311 LIGHT CURE ADHESIVE known as LOCTITE® 4311™ LIGHT CURE

#### **COMPOSITION / INFORMATION ON INGREDIENTS**

Hazardous Component(s)	CAS Number	Percentage*
Ethyl 2-cyanoacrylate	7085-85-0	80 - 100
diphenyl(2,4,6- trimethylbenzoyl)phosphine oxide	75980-60-8	0.1 - 1

<sup>\*</sup> Exact percentages may vary or are trade secret. Concentration range is provided to assist users in providing appropriate protections.

## FIRST AID MEASURES

Inhalation: Move to fresh air. If not breathing, give artificial respiration. If breathing is

difficult, give oxygen. Get medical attention.

Skin contact: Do not pull bonded skin apart. Soak in warm soapy water. Gently peel apart

using a blunt instrument. If skin is burned due to the rapid generation of heat by a large drop, seek medical attention. If lips are bonded, apply warm water to the lips and encourage wetting and pressure from saliva in mouth. Peel or

roll lips apart. Do not pull lips apart with direct opposing force.

Eye contact: Immediately flush with plenty of water for at least 15 minutes. Get medical

> attention. If eyelids are bonded closed, release eyelashes with warm water by covering with a wet pad. Do not force eye open. Cyanoacrylate will bond to eye protein and will cause a lachrymatory effect which will help to debond the adhesive. Keep eye covered until debonding is complete, usually within 1-3 days. Medical attention should be sought in case solid particles of

polymerized cyanoacrylate trapped behind the eyelid caused abrasive

damage.

Ingestion: Ensure breathing passages are not obstructed. The product will polymerize

rapidly and bond to the mouth making it almost impossible to swallow. Saliva will separate any solidified product in several hours. Prevent the patient from

swallowing any separated mass.

Symptoms: See Section 11.

Notes to physician: Surgery is not necessary to separate accidentally bonded tissues. Experience

has shown that bonded tissues are best treated by passive, non-surgical first aid. If rapid curing has caused thermal burns they should be treated

symptomatically after adhesive is removed.

# 5. FIRE FIGHTING MEASURES

Extinguishing media: Water spray (fog), foam, dry chemical or carbon dioxide.

Special firefighting procedures: Wear a self-contained breathing apparatus with a full face piece operated in

pressure-demand or other positive pressure mode.

Unusual fire or explosion hazards: None

Hazardous combustion products: Trace amounts of toxic and/or irritating fumes may be released and the use of

breathing apparatus is recommended.

## **ACCIDENTAL RELEASE MEASURES**

Use personal protection recommended in Section 8, isolate the hazard area and deny entry to unnecessary and unprotected personnel.

**Environmental precautions:** Ventilate area. Do not allow product to enter sewer or waterways.

IDH number: 1401791 Product name: LOCTITE 4311 LIGHT CURE ADHESIVE known as LOCTITE® 4311™ LIGHT CURE AD

Clean-up methods: Do not use cloths for mopping up. Flood with water to complete polymerization

and scrape off the floor. Cured material can be disposed of as non-hazardous waste. Refer to Section 8 "Exposure Controls / Personal Protection" prior to

clean up.

## 7. HANDLING AND STORAGE

**Handling:** Prevent contact with eyes, skin and clothing. Do not breathe vapor and mist.

Wash thoroughly after handling. Avoid contact with fabric or paper goods. Contact with these materials may cause rapid polymerization which can generate smoke and strong irritating vapors, and cause thermal burns.

Storage: For safe storage, store between 2 °C (35.6 °F) and 8 °C (46.4 °F)

Keep in a cool, well ventilated area away from heat, sparks and open flame.

Keep container tightly closed until ready for use.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Employers should complete an assessment of all workplaces to determine the need for, and selection of, proper exposure controls and protective equipment for each task performed.

Hazardous Component(s)	ACGIH TLV	OSHA PEL	AIHA WEEL	OTHER
Ethyl 2-cyanoacrylate	1 ppm STEL 0.2 ppm TWA (Respiratory sensitization) (Dermal sensitization)	None	None	None
diphenyl(2,4,6- trimethylbenzoyl)phosphine oxide	None	None	None	None

Engineering controls: Use positive down-draft exhaust ventilation if general ventilation is insufficient

to maintain vapor concentration below established exposure limits.

Respiratory protection: Use NIOSH approved respirator if there is potential to exceed exposure

limit(s).

Eye/face protection: Safety goggles or safety glasses with side shields.

Skin protection: Use nitrile gloves and aprons as necessary to prevent contact. Do not use

PVC, nylon or cotton.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Liquid

Color: Clear, Yellow green, to, Dark blue-green
Odor: Sharp

Odor threshold:

PH:

Not available.

Not applicable

Vapor pressure:< 0.2 mm hg</th>Boiling point/range:> 149 °C (> 300.2 °F)Melting point/ range:Not determinedSpecific gravity:1.0889 at 20 °C (68°F)Vapor density:3 Approximately

Flash point: 80 - 93 °C (176°F - 199.4 °F)

Flammable/Explosive limits - lower:
Flammable/Explosive limits - upper:
Autoignition temperature:
Flammability:
Flammability:
Evaporation rate:

Not determined
485 °C (905°F)
Not applicable
Not available.

**Solubility in water:** Polymerises in presence of water.

Partition coefficient (n-octanol/water): Not applicable

VOC content: 20 g/l California SCAQMD Method 316B

Viscosity: Not available.

Decomposition temperature: Not available.

IDH number: 1401791 Product name: LOCTITE 4311 LIGHT CURE ADHESIVE known as LOCTITE® 4311™ LIGHT CURE

AD

#### 10. STABILITY AND REACTIVITY

Stability: Stable under recommended storage conditions.

Hazardous reactions: Rapid exothermic polymerization will occur in the presence of water, amines, alkalis and

alcohols.

**Hazardous decomposition** 

products:

None

Incompatible materials: Water, amines, alkalis and alcohols.

Reactivity: Not available.

**Conditions to avoid:** Spontaneous polymerization.

## 11. TOXICOLOGICAL INFORMATION

Relevant routes of exposure: Skin, Inhalation, Eyes

#### Potential Health Effects/Symptoms

Inhalation: May cause respiratory tract irritation. Exposure to vapors above the established exposure limit

results in respiratory irritation, which may lead to difficulty in breathing and tightness in the

chest.

Skin contact: May cause skin irritation. Bonds skin in seconds. Cyanoacrylates generate heat on

solidification. In rare circumstances a large drop will burn the skin. Cured adhesive does not present a health hazard even if bonded to the skin. Cyanoacrylates have been reported to cause allergic reaction but due to rapid polymerization at the skin surface, an allergic response

is rare

Eye contact: Irritating to eyes. Causes excessive tearing. Eyelids may bond.

Ingestion: Not expected to be harmful by ingestion. Rapidly polymerizes (solidifies) and bonds in mouth. It

is almost impossible to swallow.

Hazardous Component(s)	LD50s and LC50s	Immediate and Delayed Health Effects
Ethyl 2-cyanoacrylate	None	Irritant, Allergen, Respiratory
diphenyl(2,4,6-	None	No Records

Hazardous Component(s)	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Ethyl 2-cyanoacrylate	No	No	No
diphenyl(2,4,6- trimethylbenzoyl)phosphine oxide	No	No	No

# 12. ECOLOGICAL INFORMATION

Ecological information: Not available.

#### 13. DISPOSAL CONSIDERATIONS

Information provided is for unused product only.

**Recommended method of disposal:** Follow all local, state, federal and provincial regulations for disposal.

## 14. TRANSPORT INFORMATION

The transport information provided in this section only applies to the material/formulation itself, and is not specific to any package/configuration.

U.S. Department of Transportation Ground (49 CFR)

Proper shipping name: Combustible liquid, n.o.s. (Cyanoacrylate ester)

Hazard class or division: Combustible Liquid

Identification number: NA 1993 Packing group: III

IDH number: 1401791 Product name: LOCTITE 4311 LIGHT CURE ADHESIVE known as LOCTITE® 4311™ LIGHT CURE

International Air Transportation (ICAO/IATA)

Proper shipping name: Aviation regulated liquid, n.o.s. (Cyanoacrylate ester)

Hazard class or division:

Identification number: UN 3334
Packing group: III

Exceptions: Not more than 500 ml (each inner package) - Unrestricted, Primary packs

containing less than 500ml are unregulated by this mode of transport and may be

shipped unrestricted.

Exceptions: Primary packs containing less than 500ml are unregulated by this mode of

transport and may be shipped unrestricted.

Water Transportation (IMO/IMDG)

Proper shipping name:Not regulatedHazard class or division:NoneIdentification number:NonePacking group:None

## 15. REGULATORY INFORMATION

**United States Regulatory Information** 

TSCA 8 (b) Inventory Status: All components are listed as active or are exempt from listing on the Toxic Substances

Control Act (TSCA) inventory.

TSCA 12 (b) Export Notification: None above reporting de minimis

CERCLA/SARA Section 302 EHS: None above reporting de minimis.

CERCLA/SARA Section 311/312: Immediate Health, Delayed Health, Fire, Reactive

CERCLA/SARA Section 313: None above reporting de minimis.

California Proposition 65: This product contains a chemical known to the State of California to cause birth defects or

other reproductive harm.

**Canada Regulatory Information** 

CEPA DSL/NDSL Status: Contains one or more components listed on the Non-Domestic Substances List. All other

components are listed on or are exempt from listing on the Domestic Substances List. Components listed on the NDSL must be tracked by all Canadian Importers of Record as required by Environment Canada. They may be imported into Canada in limited quantities.

Please contact Regulatory Affairs for additional details.

#### 16. OTHER INFORMATION

This safety data sheet contains changes from the previous version in sections: 2,3

Prepared by: Product Safety and Regulatory Affairs

**Issue date:** 05/10/2021

**DISCLAIMER:** The data contained herein are furnished for information only and are believed to be reliable. However, Henkel Corporation and its affiliates ("Henkel") does not assume responsibility for any results obtained by persons over whose methods Henkel has no control. It is the user's responsibility to determine the suitability of Henkel's products or any production methods mentioned herein for a particular purpose, and to adopt such precautions as may be advisable for the protection of property and persons against any hazards that may be involved in the handling and use of any Henkel's products. In light of the foregoing, Henkel specifically disclaims all warranties, express or implied, including warranties of merchantability and fitness for a particular purpose, arising from sale or use of Henkel's products. Henkel further disclaims any liability for consequential or incidental damages of any kind, including lost profits.

This Safety Data Sheet has been generated based on OSHA Hazard Communication Standard (29 CFR 1910.1200) and provides information in accordance with U.S. federal law only. No warranty or representation of any kind is given with respect to the substantive or export laws of any other jurisdiction or country. Please confirm that the information provided herein conforms to the substantive export or other law of any other jurisdiction prior to export. Please contact Henkel Product Safety and Regulatory Affairs for additional assistance.

IDH number: 1401791 Product name: LOCTITE 4311 LIGHT CURE ADHESIVE known as LOCTITE® 4311™ LIGHT CURE

AD