



## Safety Data Sheet according to (EC) No 1907/2006 - ISO 11014-1

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Loctite 4105

SDS no. : 173363

V001.2

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### 1. Identification of the substance/preparation and of the company/undertaking

**Trade name:**

Loctite 4105

**Intended use:**

Cyanoacrylate

**Company name:**

Henkel Loctite Adhesives Ltd  
Technologies House  
Wood Lane End  
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Great Britain

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**E-mail address of person responsible for Safety Data Sheet:**

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**Emergency information:**

24 Hours Emergency Tel: +44(0)8701906777

### 2. Hazards identification

R36/37/38 Irritating to eyes, respiratory system and skin.

### 3. Composition / information on ingredients

**General chemical description:**

Cyanoacrylate Adhesive

**Declaration of ingredients according to EC/1907/2006:**

Hazardous components CAS-No.	EINECS ELINCS	content	Classification
Ethyl 2-cyanoacrylate 7085-85-0	230-391-5	> 80 - < 100 %	Xi - Irritant; R36/37/38
Hydroquinone 123-31-9	204-617-8	> 0,1 - < 0,5 %	carcinogenic, category 3; Xn - Harmful; R40 Mutagen category 3.; Xn - Harmful; R68 Xn - Harmful; R22 Xi - Irritant; R41 Xi - Irritant; R43 N - Dangerous for the environment; R50
Phthalic anhydride 85-44-9	201-607-5	> 0,1 - < 0,5 %	Xn - Harmful; R22 Xi - Irritant; R37/38, R41 Xn - Harmful; R42/43

For full text of the R-Phrases indicated by codes see section 16 'Other Information'.

Substances without classification may have community workplace exposure limits available.

#### 4. First aid measures

**Inhalation:**

Move to fresh air, consult doctor if complaint persists.

**Skin contact:**

Do not pull bonded skin apart. It may be gently peeled apart using a blunt object such as a spoon, preferably after soaking in warm soapy water.

Cyanoacrylates give off heat on solidification. In rare cases a large drop will generate enough heat to cause a burn.

Burns should be treated normally after the adhesive has been removed from the skin.

If lips are accidentally stuck together apply warm water to the lips and encourage maximum wetting and pressure from saliva inside the mouth.

Peel or roll lips apart. Do not try to pull the lips apart with direct opposing action.

**Eye contact:**

If the eye is bonded closed, release eyelashes with warm water by covering with wet pad.

Cyanoacrylate will bond to eye protein and will cause periods of weeping which will help to debond the adhesive.

Keep eye covered until debonding is complete, usually within 1-3 days.

Do not force eye open. Medical advice should be sought in case solid particles of cyanoacrylate trapped behind the eyelid cause any abrasive damage.

**Ingestion:**

Ensure that breathing passages are not obstructed. The product will polymerise immediately in the mouth making it almost impossible to swallow. Saliva will slowly separate the solidified product from the mouth (several hours).

#### 5. Fire fighting measures

**Suitable extinguishing media:**

foam, extinguishing powder, carbon dioxide  
fine water spray

**Special protection equipment for firefighters:**

Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA).

**Hazardous combustion products:**

Oxides of carbon, oxides of nitrogen, irritating organic vapors.

#### 6. Accidental release measures

**Personal precautions:**

Ensure adequate ventilation.

**Environmental precautions:**

Do not let product enter drains.

**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.

#### 7. Handling and storage

**Handling:**

Ventilation (low level) is recommended when using large volumes

Use of dispensing equipment is recommended to minimise the risk of skin or eye contact

**Storage:**

For optimum shelf life store in original containers under refrigerated conditions at 2 - 8°C (35.6 - 46.4 °F)

**8. Exposure controls / personal protection****Components with specific control parameters for workplace:**

Valid for

Great Britain

Basis

UK EH40 WELs

Ingredient	ppm	mg/m <sup>3</sup>	Type	Category	Remarks
ETHYL CYANOACRYLATE 7085-85-0	0,3	1,5	Short Term Exposure Limit (STEL):		EH40 WEL
				Listed.	EH40 WEL
PHTHALIC ANHYDRIDE 85-44-9		4	Time Weighted Average (TWA).		EH40 WEL
		12	Short Term Exposure Limit (STEL):		EH40 WEL
				Listed.	EH40 WEL
HYDROQUINONE 123-31-9		0,5	Time Weighted Average (TWA).		EH40 WEL

**Respiratory protection:**

Ensure adequate ventilation.

**Hand protection:**

In circumstances where there is a potential for prolonged or repeated skin contact, the use of polyvinyl chloride or nitrile rubber gauntlets or equivalent solvent resistant gloves is recommended.

The use of chemical resistant gloves such as Nitrile are recommended

**Eye protection:**

Wear protective glasses.

**General protection and hygiene measures:**

Good industrial hygiene practices should be observed

**9. Physical and chemical properties****General characteristics:**

Appearance

liquid

black

Odor:

irritating

**Phys./chem. properties:**

Boiling point

&gt; 149 °C (&gt; 300.2 °F)

Flash point

80 - 93,3 °C (176 - 199.9 °F)

Vapor pressure

&lt; 0,6 mbar

(25 °C (77 °F))

Density

1,1 g/cm<sup>3</sup>

(20 °C (68 °F))

Solubility (qualitative)

Polymerises in presence of water

(Solvent: Water)

VOC content

&lt; 3 % (As defined in the Council Directive 2004/42/EC)

**10. Stability and reactivity****Conditions to avoid:**

Stable under normal conditions of storage and use.

**Materials to avoid:**

Rapid exothermic polymerization will occur in the presence of water, amines, alkalis and alcohols.

## 11. Toxicological information

### Oral toxicity:

Cyanoacrylates are considered to have relatively low toxicity. Acute oral LD50 is >5000mg/kg (rat). It is almost impossible to swallow as it rapidly polymerises in the mouth.

### Inhalative toxicity:

Irritating to respiratory system

Prolonged exposure to high concentrations of vapours may lead to chronic effects in sensitive individuals

In dry atmosphere with < 50% humidity, vapours may irritate the eyes and respiratory system

### Skin irritation:

Irritating to the skin

Bonds skin in seconds. Considered to be of low toxicity: acute dermal LD50 (rabbit)>2000mg/kg

Due to polymerisation at the skin surface allergic reaction is unlikely to occur

### Eye irritation:

Irritating to eyes.

Liquid product will bond eyelids. In a dry atmosphere (RH<50%) vapours may cause irritation and lachrymatory effect

## 12. Ecological information

### Mobility:

Cured adhesives are immobile.

### General ecological information:

Biological and Chemical Oxygen Demands (BOD and COD) are insignificant.

Do not empty into drains / surface water / ground water.

## 13. Disposal considerations

### Product disposal:

Cured adhesive: Dispose of as water insoluble non-toxic solid chemical in authorised landfill or incinerate under controlled conditions.

Dispose of in accordance with local and national regulations.

### Waste code(EWC ):

08 04 09 waste adhesives and sealants containing organic solvents and other dangerous substances

### Disposal of uncleaned packages:

After use, tubes, cartons and bottles containing residual product should be disposed of as chemically contaminated waste in an authorised legal land fill site or incinerated.

Disposal must be made according to official regulations.

## 14. Transport information

### Road transport ADR:

Not dangerous goods

### Railroad transport RID:

Not dangerous goods

### Inland water transport ADN:

Not dangerous goods

### Marine transport IMDG:

Not dangerous goods

**Air transport IATA:**

Class:	9
Packaging group:	
Packaging instructions (passenger)	906
Packaging instructions (cargo)	906
UN no.:	3334
Label:	9
Proper shipping name:	Aviation regulated liquid n.o.s. (Cyanoacrylate ester)

**15. Regulations - classification and identification**

**Indication of danger:**

Xi - Irritant



**Risk phrases:**

R36/37/38 Irritating to eyes, respiratory system and skin.

**Safety phrases:**

S23 Do not breathe vapour.

S24/25 Avoid contact with skin and eyes.

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

**Additional labeling:**

Cyanoacrylate. Danger. Bonds skin and eyes in seconds. Keep out of the reach of children.

Contains Hydroquinone. May produce an allergic reaction.

Contains Phthalic anhydride. May produce an allergic reaction.

**16. Other information**

The labelling of the product is indicated in Section 15. The full text of the R-phrases indicated by codes in this safety data sheet are as follows:

R22 Harmful if swallowed.

R36/37/38 Irritating to eyes, respiratory system and skin.

R37/38 Irritating to respiratory system and skin.

R40 Limited evidence of a carcinogenic effect.

R41 Risk of serious damage to eyes.

R42/43 May cause sensitization by inhalation and skin contact.

R43 May cause sensitization by skin contact.

R50 Very toxic to aquatic organisms.

R68 Possible risk of irreversible effects.

**Further information:**

This information is based on our current level of knowledge and relates to the product in the state in which it is delivered. It is intended to describe our products from the point of view of safety requirements and is not intended to guarantee any particular properties.

This safety data sheet was prepared in accordance with Council Directive 67/548/EEC and its subsequent amendments, and Commission Directive 1999/45/EC.

