



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

Page 1 of 5

Loctite 454

SDS no. : 153575

V001.2

Revision: 10.09.2007

printing date: 12.02.2008

RS REACH MSDS Date 01/02/08

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

**Trade name:**

Loctite 454

**Intended use:**

Cyanoacrylate

**Company name:**

Henkel Limited  
Technologies House  
Wood Lane End  
HP2 4RQ Hemel Hempstead

Great Britain

Phone: +44 (0)1442 278000

Fax-no.: +44 (0)1442 278071

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

ua-productsafety.uk@uk.henkel.com

**Emergency information:**

24 Hours Emergency Tel: +44(0)8701906777

Supplied by:

**RS Components Ltd.**  
Birchington Road, Corby, Northants, NN17 9RS.  
Tel: +44 (0) 1536 402888 (8am to 8pm)  
Email: technical.help@rs-components.com

## 2. Hazards identification

Bonds skin and eyes in seconds. Highly reactive to water. (See Section 4 on first aid.)  
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

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

Occupational Exposure Limits

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

**Respiratory protection:**

Ensure adequate ventilation.

**Hand protection:**

The use of chemical resistant gloves such as Nitrile are recommended

Polyethylene or polypropylene gloves are recommended when using large volumes

Do not use PVC, rubber or nylon gloves

Please note that in practice the working life of chemical resistant gloves may be considerably reduced as a result of many influencing factors (e.g. temperature). Suitable risk assessment should be carried out by the end user. If signs of wear and tear are noticed then the gloves should be replaced.

**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  
gel-like  
colourless

Odor:

irritating

**Phys./chem. properties:**

pH-value

not applicable

Boiling point

&gt; 149 °C (&gt; 300.2 °F)

Flash point

80 - 93,4 °C (176 - 200.1 °F)

Vapor pressure

0,27 mbar

Density

1,0500 g/cm<sup>3</sup>

( )

Solubility (qualitative)

miscible

(Solvent: Acetone)

Solubility (qualitative)

Polymerises in presence of water

(Solvent: Water)

VOC content

&lt; 3,00 % (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.

Contribution of this product to waste is very insignificant in comparison to article in which it is used

### 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.

## 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:

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

**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.