

Safety Data Sheet according to Regulation (EC) No 1907/2006

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Loctite Superglue Plastics upgrade - CLP

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Loctite Superglue Plastics upgrade - CLP-SG part

Contains:

Ethyl 2-cyanoacrylate

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use:

Super glue

1.3. Details of the supplier of the safety data sheet

Henkel Ltd

Adhesives

Wood Lane End

HP2 4RQ Hemel Hempstead

Great Britain

Phone: +44 (1442) 278000 Fax-no.: +44 (1442) 278071

ua-productsafety.uk@henkel.com

1.4. Emergency telephone number

24 Hours Emergency Tel: +44 0 8701 906777 - For further general health & safety, technical and practical advice on this product, please call +44 (0) 1606 593933 or write to: Technical Services; Henkel Limited; Road 5; Winsford Industrial Estate; Winsford; Cheshire; CW7 3QY- Email: technical.services@henkel.co.uk

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (CLP):

Skin irritation Category 2

H315 Causes skin irritation.

Serious eye irritation Category 2

H319 Causes serious eye irritation.

Specific target organ toxicity - single exposure Category 3

H335 May cause respiratory irritation. Target organ: respiratory tract irritation

2.2. Label elements

Label elements (CLP):

Hazard pictogram:



Signal word: Warning

Hazard statement: H315 Causes skin irritation.

H319 Causes serious eye irritation. H335 May cause respiratory irritation.

Supplemental information EUH202 Cyanoacrylate. Danger. Bonds skin and eyes in seconds. Keep out of the reach of

children.

Precautionary statement: P261 Avoid breathing vapours.

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove

contact lenses, if present and easy to do. Continue rinsing.

Precautionary statement:

Disposal

P501 Dispose of contents/container in accordance with national regulation.

2.3. Other hazards

Persons suffering from allergic reactions to acrylates should avoid contact with the product. Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

General chemical description:

Super glue

Base substances of preparation:

Cyanoacrylate

Declaration of the ingredients according to CLP (EC) No 1272/2008:

Hazardous components	EC Number	content	Classification
CAS-No.	REACH-Reg No.		
Ethyl 2-cyanoacrylate	230-391-5	80-<100 %	Eye Irrit. 2
7085-85-0	01-2119527766-29		H319
			STOT SE 3
			H335
			Skin Irrit. 2
			H315
Hydroquinone	204-617-8	0,01-< 0,1 %	Aquatic Acute 1
123-31-9	01-2119524016-51		H400
			Aquatic Chronic 1
			H410
			Carc. 2
			H351
			Muta. 2
			H341
			Acute Tox. 4; Oral
			H302
			Eye Dam. 1
			H318
			Skin Sens. 1
			H317
			M factor (Acute Aquat Tox): 10

For full text of the H - statements and other abbreviations see section 16 "Other information". Substances without classification may have community workplace exposure limits available.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information:

In case of adverse health effects seek medical advice.

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).

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

Causes serious eye irritation.

SKIN: Redness, inflammation.

RESPIRATORY: Irritation, coughing, shortness of breath, chest tightness.

4.3. Indication of any immediate medical attention and special treatment needed

See section: Description of first aid measures

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

carbon dioxide, foam, powder, water spray jet, fine water spray

Extinguishing media which must not be used for safety reasons:

High pressure waterjet

5.2. Special hazards arising from the substance or mixture

In the event of a fire, carbon monoxide (CO) and carbon dioxide (CO2) can be released.

5.3. Advice for firefighters

Wear self-contained breathing apparatus.

Wear protective equipment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear protective equipment.

Danger of slipping on spilled product.

Ensure adequate ventilation.

Avoid contact with skin and eyes.

6.2. Environmental precautions

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

6.3. Methods and material for containment and cleaning up

Remove with liquid-absorbing material (sand, peat, sawdust).

Dispose of contaminated material as waste according to Section 13.

6.4. Reference to other sections

See advice in section 8

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Open and handle container with care.

Ensure that workrooms are adequately ventilated.

Avoid skin and eye contact.

Hygiene measures:

Wash hands before work breaks and after finishing work.

Do not eat, drink or smoke while working.

7.2. Conditions for safe storage, including any incompatibilities

Store in a dry place.

Keep container tightly sealed and store in a frost free place.

Store in a cool place, max. storage temperature 30°C.

Do not store together with food or other consumables (coffee, tea, tobacco, etc.).

7.3. Specific end use(s)

Super glue

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure Limits

Valid for

Great Britain

Ingredient [Regulated substance]	ppm	mg/m ³	V 1	Short term exposure limit category / Remarks	Regulatory list
Ethyl 2-cyanoacrylate 7085-85-0 [ETHYL CYANOACRYLATE]	0,3	1,5	Short Term Exposure Limit (STEL):		EH40 WEL
Hydroquinone 123-31-9 [HYDROQUINONE]		0,5	Time Weighted Average (TWA):		EH40 WEL

Occupational Exposure Limits

Valid for

Ireland

Ingredient [Regulated substance]	ppm	mg/m ³	* *	Short term exposure limit category / Remarks	Regulatory list
Ethyl 2-cyanoacrylate 7085-85-0 [ETHYL CYANOACRYLATE]	0,2		Time Weighted Average (TWA):		IR_OEL
Hydroquinone 123-31-9 [HYDROQUINONE]		0,5	Time Weighted Average (TWA):		IR_OEL

Predicted No-Effect Concentration (PNEC):

Name on list	Environmental	Exposure	Value				Remarks
	Compartment	period					
			mg/l	ppm	mg/kg	others	
Hydroquinone 123-31-9	aqua (freshwater)		0,114 μg/l				
Hydroquinone 123-31-9	aqua (marine water)		0,0114 μg/l				
Hydroquinone 123-31-9	sediment (freshwater)				0,98 μg/kg		
Hydroquinone 123-31-9	sediment (marine water)				0,097 μg/kg		
Hydroquinone 123-31-9	aqua (intermittent releases)		0,00134 mg/l				
Hydroquinone 123-31-9	soil				0,129 μg/kg		
Hydroquinone 123-31-9	sewage treatment plant (STP)		0,71 mg/l				

Derived No-Effect Level (DNEL):

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
Ethyl 2-cyanoacrylate 7085-85-0	Workers	Inhalation	Long term exposure - local effects		9,25 mg/m3	
Ethyl 2-cyanoacrylate 7085-85-0	Workers	Inhalation	Long term exposure - systemic effects		9,25 mg/m3	
Ethyl 2-cyanoacrylate 7085-85-0	General population	Inhalation	Long term exposure - local effects		9,25 mg/m3	
Ethyl 2-cyanoacrylate 7085-85-0	General population	Inhalation	Long term exposure - systemic effects		9,25 mg/m3	
Hydroquinone 123-31-9	Workers	dermal	Long term exposure - systemic effects		128 mg/kg	
Hydroquinone 123-31-9	Workers	Inhalation	Long term exposure - systemic effects		7 mg/m3	
Hydroquinone 123-31-9	Workers	Inhalation	Long term exposure - local effects		1 mg/m3	
Hydroquinone 123-31-9	General population	dermal	Long term exposure - systemic effects		64 mg/kg	
Hydroquinone 123-31-9	General population	Inhalation	Long term exposure - systemic effects		1,74 mg/m3	
Hydroquinone 123-31-9	General population	Inhalation	Long term exposure - local effects		0,5 mg/m3	

Biological Exposure Indices:

None

8.2. Exposure controls:

Respiratory protection:

Suitable breathing mask when there is inadequate ventilation.

Combination filter: ABEKP (EN 14387)

This recommendation should be matched to local conditions.

Hand protection:

Recommended are gloves made from Nitril rubber (Material thickness >0,1 mm, Perforation time < 30s). Gloves should be replaced after each short time contact or contamination. Available at laboratory specialized trade or at pharmacies / chemist's shops.

In the case of longer contact protective gloves made from nitrile rubber are recommended according to EN 374.

Perforation time > 30 minutes

material thickness > 0.4 mm

In the case of longer and repeated contact please note that in practice the penetration times may be considerably shorter than those determined according to EN 374. The protective gloves must always be checked for their suitability for use at the specific workplace (e.g. mechanical and thermal stress, product compatibility, antistatic effects, etc.). The gloves must be replaced immediately at the first signs of wear and tear. The information provided by the manufacturers and given in the relevant trade association regulations for industrial safety must always be observed. We recommend that a hand care plan is drawn up in cooperation with a glove manufacturer and the trade association in accordance with the local operating conditions.

Eye protection:

Goggles which can be tightly sealed.

Protective eye equipment should conform to EN166.

Skin protection:

Suitable protective clothing

Protective clothing should conform to EN 14605 for liquid splashes or to EN 13982 for dusts.

Advices to personal protection equipment:

The information provided on personal protective equipment is for guidance purposes only. A full risk assessment should be conducted prior to using this product to determine the appropriate personal protective equipment to suit local conditions. Personal protective equipment should conform to the relevant EN standard.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance liquid

colourless to yellowish

Odour threshold No data available / Not applicable

pH No data available / Not applicable
Melting point No data available / Not applicable
Solidification temperature No data available / Not applicable

Solidification temperature

No data available / Not applicab

No data available / Not applicab

Initial boiling point

> 149 °C (> 300.2 °F)

Flash point

80 - 93,4 °C (176 - 200.12 °F)

Evaporation rate No data available / Not applicable Flammability No data available / Not applicable No data available / Not applicable **Explosive limits** No data available / Not applicable Vapour pressure Relative vapour density: No data available / Not applicable No data available / Not applicable Density Bulk density No data available / Not applicable Solubility No data available / Not applicable Solubility (qualitative) Polymerises in presence of water.

(Solvent: Water)

Partition coefficient: n-octanol/water

Auto-ignition temperature

No data available / Not applicable
Viscosity

No data available / Not applicable
Viscosity (kinematic)

No data available / Not applicable
Explosive properties

No data available / Not applicable
Oxidising properties

No data available / Not applicable

9.2. Other information

No data available / Not applicable

SECTION 10: Stability and reactivity

10.1. Reactivity

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

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

See section reactivity

10.4. Conditions to avoid

None if used for intended purpose.

10.5. Incompatible materials

See section reactivity.

10.6. Hazardous decomposition products

None known.

SECTION 11: Toxicological information

General toxicological information:

Persons suffering from allergic reactions to acrylates should avoid contact with the product.

11.1. Information on toxicological effects

Acute oral toxicity:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Species	Method
Ethyl 2-cyanoacrylate 7085-85-0	LD50	> 5.000 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)
Hydroquinone 123-31-9	LD50	367 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)

Acute dermal toxicity:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Species	Method
Ethyl 2-cyanoacrylate 7085-85-0	LD50	> 2.000 mg/kg	rabbit	OECD Guideline 402 (Acute Dermal Toxicity)

Acute inhalative toxicity:

No data available.

Skin corrosion/irritation:

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

Hazardous substances CAS-No.	Result	Exposure time	Species	Method
Ethyl 2-cyanoacrylate	slightly	24 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
7085-85-0	irritating			

Serious eye damage/irritation:

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

Hazardous substances CAS-No.	Result	Exposure time	Species	Method
Ethyl 2-cyanoacrylate 7085-85-0	irritating	72 h	rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)

Respiratory or skin sensitization:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances	Result	Test type	Species	Method
CAS-No.				
Ethyl 2-cyanoacrylate 7085-85-0	not sensitising		guinea pig	not specified
Hydroquinone 123-31-9	sensitising	Guinea pig maximisation test	guinea pig	not specified

Germ cell mutagenicity:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances	Result	Type of study /	Metabolic	Species	Method
CAS-No.		Route of	activation /		
		administration	Exposure time		
Ethyl 2-cyanoacrylate	negative	bacterial reverse			OECD Guideline 471
7085-85-0		mutation assay (e.g			(Bacterial Reverse Mutation
		Ames test)			Assay)
Ethyl 2-cyanoacrylate	negative	mammalian cell	with and without		OECD Guideline 476 (In vitro
7085-85-0		gene mutation assay			Mammalian Cell Gene
					Mutation Test)
Ethyl 2-cyanoacrylate	negative	in vitro mammalian	with and without		OECD Guideline 473 (In vitro
7085-85-0		chromosome			Mammalian Chromosome
		aberration test			Aberration Test)
Hydroquinone	negative	bacterial reverse	with and without		EU Method B.13/14
123-31-9	_	mutation assay (e.g			(Mutagenicity)
		Ames test)			

Carcinogenicity

No data available.

Reproductive toxicity:

No data available.

STOT-single exposure:

No data available.

STOT-repeated exposure::

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result / Value	Route of application	Exposure time / Frequency of treatment	Species	Method
Hydroquinone 123-31-9	NOAEL >= 250 mg/kg	oral: gavage	14 days 5 days/week. 12 doses	rat	OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity in Rodents)

Aspiration hazard:

No data available.

SECTION 12: Ecological information

General ecological information:

Do not empty into drains, soil or bodies of water.

12.1. Toxicity

Toxicity (Fish):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Value	Value	Exposure time	Species	Method
CAS-No.	type				
Hydroquinone	LC50	0,638 mg/l	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish,
123-31-9					Acute Toxicity Test)

Toxicity (Daphnia):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Value	Value	Exposure time	Species	Method
CAS-No.	type				
Hydroquinone	EC50	0,134 mg/l	48 h	Daphnia magna	OECD Guideline 202
123-31-9					(Daphnia sp. Acute
					Immobilisation Test)

Chronic toxicity to aquatic invertebrates

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Value	Value	Exposure time	Species	Method
CAS-No.	type				
Hydroquinone	NOEC	0,0057 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia
123-31-9					magna, Reproduction Test)

Toxicity (Algae):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Value	Value	Exposure time	Species	Method
CAS-No.	type				
Hydroquinone	EC50	0,335 mg/l	72 h	Selenastrum capricornutum	OECD Guideline 201 (Alga,
123-31-9				(new name: Pseudokirchneriella	Growth Inhibition Test)
				subcapitata)	

Toxicity to microorganisms

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Hydroquinone 123-31-9		0,038 mg/l	30 min		not specified

12.2. Persistence and degradability

Hazardous substances	Result	Test type	Degradability	Exposure	Method
CAS-No.				time	
Ethyl 2-cyanoacrylate		aerobic	57 %	28 d	OECD Guideline 301 D (Ready
7085-85-0					Biodegradability: Closed Bottle
					Test)
Hydroquinone	readily biodegradable	aerobic	75 - 81 %	30 d	EU Method C.4-E (Determination
123-31-9					of the "Ready"
					BiodegradabilityClosed Bottle
					Test)

12.3. Bioaccumulative potential

No data available.

12.4. Mobility in soil

Hazardous substances	LogPow	Temperature	Method
CAS-No.			
Ethyl 2-cyanoacrylate	0,776	22 °C	EU Method A.8 (Partition Coefficient)
7085-85-0			
Hydroquinone	0,59		EU Method A.8 (Partition Coefficient)
123-31-9			

12.5. Results of PBT and vPvB assessment

Hazardous substances CAS-No.	PBT / vPvB
Hydroquinone 123-31-9	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

12.6. Other adverse effects

No data available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product disposal:

Dispose of waste and residues in accordance with local authority requirements.

Disposal of uncleaned packages:

Use packages for recycling only when totally empty.

Waste code 080409

SECTION 14: Transport information

14.1. UN number

ADR	Not dangerous goods
RID	Not dangerous goods
ADN	Not dangerous goods
IMDG	Not dangerous goods
IATA	3334

14.2. UN proper shipping name

ADR	Not dangerous goods
RID	Not dangerous goods
ADN	Not dangerous goods
IMDG	Not dangerous goods

IATA Aviation regulated liquid, n.o.s. (Cyanoacrylate ester)

14.3. Transport hazard class(es)

ADR	Not dangerous goods
RID	Not dangerous goods
ADN	Not dangerous goods
IMDG	Not dangerous goods
T	

IATA 9

14.4. Packing group

ADR	Not dangerous goods
RID	Not dangerous goods
ADN	Not dangerous goods
IMDG	Not dangerous goods

IATA III

14.5. Environmental hazards

ADR	not applicable
RID	not applicable
ADN	not applicable
IMDG	not applicable
IATA	not applicable

14.6. Special precautions for user

ADR	not applicable
RID	not applicable
ADN	not applicable
IMDG	not applicable

IATA Primary packs containing less than 500ml are unregulated by this mode of transport

and may be shipped unrestricted.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

VOC content

0 %

(VOCV 814.018 VOC regulation

CH)

15.2. Chemical safety assessment

A chemical safety assessment has been carried out.

SECTION 16: Other information

The labelling of the product is indicated in Section 2. The full text

of all abbreviations indicated by codes in this safety data sheet are as follows:

- H302 Harmful if swallowed.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H318 Causes serious eye damage.
- H319 Causes serious eye irritation.
- H335 May cause respiratory irritation.
- H341 Suspected of causing genetic defects.
- H351 Suspected of causing cancer.
- H400 Very toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting 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.

Relevant changes in this safety data sheet are indicated by vertical lines at the left margin in the body of this document. Corresponding text is displayed in a different color on shadowed fields.

Annex - Exposure Scenarios:

Exposure Scenarios for ethyl 2-cyanoacrylate can be downloaded under the following link:

http://mymsds.henkel.com/mymsds/.470833..en.ANNEX_DE.15743123.0.DE.pdf

Alternatively they can be accessed on the internet site www.mymsds.henkel.com by entering number 470833.