

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

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SDS No.: 436573

V002.2 Revision: 27.11.2014 printing date: 10.12.2014

Loctite Super Glue Power Flex Gel Control

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

#### 1.1. Product identifier

Loctite Super Glue Power Flex Gel Control

#### **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 France SAS Rue de Silly 161

92100 Boulogne-Billancourt

France

Phone: +33 (0033) 1 4684 9000 Fax-no.: +33 (0033) 1 4684 9090

ua-productsafety.uk@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):

Specific target organ toxicity - single exposure

Category 3

H335 May cause respiratory irritation.

Serious eye irritation

Category 2

H319 Causes serious eye irritation.

Skin irritation Category 2

H315 Causes skin irritation.

#### Classification (DPD):

Xi - Irritant

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

#### 2.2. Label elements

#### Label elements (CLP):

#### Hazard pictogram:



Signal word: Warning

**Hazard statement:** H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

H315 Causes skin 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.

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

contact lenses, if present and easy to do. Continue rinsing. P302+P352 IF ON SKIN: Wash with plenty of water/...

## Label elements (DPD):

#### Xi - Irritant



#### Risk phrases:

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

#### Safety phrases:

S2 Keep out of the reach of children.

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.

## 2.3. Other hazards

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

## **SECTION 3: Composition/information on ingredients**

## 3.2. Mixtures

#### General chemical description:

Cyanoacrylate Adhesive

## Base substances of preparation:

Cyanoacrylate

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

Hazardous components CAS-No.	EC Number REACH-Reg No.	content	Classification
Ethyl 2-cyanoacrylate 7085-85-0	230-391-5 01-2119527766-29	> 80-<100 %	Serious eye irritation 2 H319  Specific target organ toxicity - single exposure 3 H335 Skin irritation 2 H315
Hydroquinone 123-31-9	204-617-8 01-2119524016-51	< 0,1 %	Carcinogenicity 2 H351 Germ cell mutagenicity 2 H341 Acute toxicity 4; Oral H302 Serious eye damage 1 H318 Skin sensitizer 1 H317 Acute hazards to the aquatic environment 1 H400 M factor: 10 M factor (Chron Aquat Tox): 10
Bis(2-hydroxy-3-tert-butyl-5- methylphenyl)methane 119-47-1	204-327-1 01-2119496065-33	< 1 %	Toxic to reproduction 2 H361 Chronic hazards to the aquatic environment 4 H413

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.

#### Declaration of ingredients according to DPD (EC) No 1999/45:

Hazardous components	EC Number	content	Classification
CAS-No.	REACH-Reg No.		
Ethyl 2-cyanoacrylate	230-391-5	> 80 - < 100 %	Xi - Irritant; R36/37/38
7085-85-0	01-2119527766-29		
Hydroquinone	204-617-8	< 0,1 %	carcinogenic, category 3; R40
123-31-9	01-2119524016-51		Mutagen category 3.; R68
			Xn - Harmful; R22
			Xi - Irritant; R41
			R43
			N - Dangerous for the environment; R50

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.

## **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.

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#### 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 protective equipment.

Wear self-contained breathing apparatus.

## **SECTION 6: Accidental release measures**

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

Ensure adequate ventilation.

Avoid contact with skin and eyes.

Danger of slipping on spilled product.

#### 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.

Avoid skin and eye contact.

Ensure that workrooms are adequately ventilated.

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Hygiene measures:

Do not eat, drink or smoke while working.

Wash hands before work breaks and after finishing work.

## 7.2. Conditions for safe storage, including any incompatibilities

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

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

Store in a dry place.

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

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	ppm	mg/m³	Type	Category	Remarks
ETHYL CYANOACRYLATE	0,3	1,5	Short Term Exposure		EH40 WEL
7085-85-0			Limit (STEL):		

## **Predicted No-Effect Concentration (PNEC):**

Name on list	Environmental Compartment		Value				Remarks
	Compartment	periou	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	STP					0,71 mg/L	

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#### **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 bw/day	
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 bw/day	
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

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.

#### Skin protection:

Suitable protective clothing

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## **SECTION 9: Physical and chemical properties**

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

Appearance gel

clear to slightly

cloudy colourless

Odor irritating

Odour threshold No data available / Not applicable

рΗ No data available / Not applicable

Initial boiling point > 100 °C (> 212 °F)

80 - 93,4 °C (176 - 200.12 °F); Tagliabue closed cup Flash point

Decomposition temperature No data available / Not applicable

Vapour pressure < 0,5 mbar

(25 °C (77 °F))

1,1000 g/cm3 Density

(23,9 °C (75 °F))

Bulk density No data available / Not applicable No data available / Not applicable Viscosity Viscosity (kinematic) No data available / Not applicable Explosive properties No data available / Not applicable Solubility (qualitative) Polymerises in presence of water.

(Solvent: Water)

Solidification temperature No data available / Not applicable No data available / Not applicable Melting point No data available / Not applicable Flammability Auto-ignition temperature No data available / Not applicable Explosive limits No data available / Not applicable Partition coefficient: n-octanol/water No data available / Not applicable Evaporation rate No data available / Not applicable No data available / Not applicable Vapor density No data available / Not applicable Oxidising properties

#### 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**

## 11.1. Information on toxicological effects

## General toxicological information:

The mixture is classified based on the available hazard information for the ingredients as defined in the classification criteria for mixtures for each hazard class or differentiation in Annex I to Regulation 1272/2008/EC. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following. Persons suffering from allergic reactions to acrylates should avoid contact with the product.

#### Inhalative toxicity:

May cause respiratory irritation.

#### Skin irritation:

Causes skin irritation.

#### Eye irritation:

Causes serious eye irritation.

## Acute oral toxicity:

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

## Acute dermal toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
Ethyl 2-cyanoacrylate	LD50	> 2.000 mg/kg	dermal		rabbit	OECD Guideline 402 (Acute
7085-85-0						Dermal Toxicity)

## Skin corrosion/irritation:

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

## Serious eye damage/irritation:

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

## Respiratory or skin sensitization:

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

## Germ cell mutagenicity:

Hazardous components CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
Ethyl 2-cyanoacrylate 7085-85-0	negative	bacterial reverse mutation assay (e.g Ames test)			OECD Guideline 471 (Bacterial Reverse Mutation Assay)
	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
	negative	in vitro mammalian chromosome aberration test	with and without		OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
Hydroquinone 123-31-9	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		EU Method B.13/14 (Mutagenicity)
Bis(2-hydroxy-3-tert- butyl-5- methylphenyl)methane 119-47-1	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)

## Repeated dose toxicity

Hazardous components CAS-No.	Result	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)
Hydroquinone 123-31-9	LOAEL=<= 500 mg/kg	oral: gavage	14 days 5 days/week. 12 doses	rat	OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity in Rodents)

# **SECTION 12: Ecological information**

## General ecological information:

The mixture is classified based on the available hazard information for the ingredients as defined in the classification criteria for mixtures for each hazard class or differentiation in Annex I to Regulation 1272/2008/EC. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following. Do not empty into drains, soil or bodies of water.

## 12.1. Toxicity

Hazardous components CAS-No.	Value type	Value	Acute Toxicity	Exposure time	Species	Method
	V 1		Study			
Hydroquinone	LC50	0,17 mg/l	Fish	96 h	Brachydanio rerio (new name:	OECD Guideline
123-31-9					Danio rerio)	203 (Fish, Acute
						Toxicity Test)
Hydroquinone	EC50	0,29 mg/l	Daphnia	48 h	Daphnia magna	
123-31-9			J			
Hydroquinone	EC50	0,335 mg/l	Algae	3 d	Selenastrum capricornutum	OECD Guideline
123-31-9					(new name: Pseudokirchnerella	201 (Alga, Growth
					subcapitata)	Inhibition Test)
Hydroquinone	NOEC	0,0057 mg/l	chronic	21 d	Daphnia magna	OECD 211
123-31-9			Daphnia			(Daphnia magna,
						Reproduction Test)

## 12.2. Persistence and degradability

Hazardous components	Result	Route of	Degradability	Method
CAS-No.		application		

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Ethyl 2-cyanoacrylate 7085-85-0		aerobic	57 %	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
Hydroquinone 123-31-9	readily biodegradable	aerobic	75 - 81 %	EU Method C.4-E (Determination of the "Ready" BiodegradabilityClosed Bottle Test)
Bis(2-hydroxy-3-tert-butyl-5- methylphenyl)methane 119-47-1	under test conditions no biodegradation observ		0 %	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)

# 12.3. Bioaccumulative potential / 12.4. Mobility in soil

Hazardous components	LogKow	Bioconcentration	Exposure	Species	Temperature	Method
CAS-No.		factor (BCF)	time			
Ethyl 2-cyanoacrylate	0,776				22 °C	EU Method A.8 (Partition
7085-85-0						Coefficient)
Hydroquinone	1,03					
123-31-9						
Bis(2-hydroxy-3-tert-butyl-5-	6,24					
methylphenyl)methane						
119-47-1						

## 12.5. Results of PBT and vPvB assessment

Hazardous components	PBT/vPvB
CAS-No.	
Hydroquinone	Not fulfilling PBT (persistent/bioaccummulative/toxic) criteria
123-31-9	
Bis(2-hydroxy-3-tert-butyl-5-	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
methylphenyl)methane	Bioaccumulative (vPvB) criteria.
119-47-1	

### 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

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

## **SECTION 14: Transport information**

#### 14.1. **UN** number

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

#### 14.2. UN proper shipping name

ADR Not dangerous goods RID Not dangerous goods **ADNR** Not dangerous goods **IMDG** Not dangerous goods

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

#### 14.3. Transport hazard class(es)

ADR	Not dangerous goods
RID	Not dangerous goods
ADNR	Not dangerous goods
IMDG	Not dangerous goods

**IATA** 9

#### 14.4. Packaging group

ADR	Not dangerous goods
RID	Not dangerous goods
ADNR	Not dangerous goods
IMDG	Not dangerous goods

IATA Ш

#### 14.5. **Environmental hazards**

**ADR** not applicable RID not applicable not applicable **ADNR IMDG** not applicable IATA not applicable

#### 14.6. Special precautions for user

ADR not applicable RID not applicable ADNR 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 73/78 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

0,00 %

(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:

R22 Harmful if swallowed.

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

R40 Limited evidence of a carcinogenic effect.

R41 Risk of serious damage to eyes.

R43 May cause sensitisation by skin contact.

R50 Very toxic to aquatic organisms.

R68 Possible risk of irreversible effects.

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.

H361 Suspected of damaging fertility or the unborn child.

H400 Very toxic to aquatic life.

H413 May cause long lasting harmful effects to aquatic life.

#### **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.