

## Material Safety data sheet - Loctite

- 1.1 Product identifier: **Product name: CAF PASTE**  
 1.2 Relevant identified uses of the substance or mixture and uses advised against:  
 Identified uses: Cyanoacrylate  
 Uses advised against: None known

• **1.3 Details of the supplier of the safety data sheet Supplier:**

Oxford Instruments NanoAnalysis  
 Halifax Rd, High Wycombe HP12 3SE  
 United Kingdom  
 Tel: +44 (0) 1494 442255

### SECTION 2: Hazards identification

- 2.1. Classification of the substance or mixture  
 Classification (CLP): Chronic hazards to the aquatic environment Category 3  
 H412 Harmful to aquatic life with long lasting effects.  
 2.2. Label elements Label elements (CLP):  
 Hazard statement: H412 Harmful to aquatic life with long lasting effects.  
 Supplemental information Cyanoacrylate. Danger. Bonds skin and eyes in seconds. Keep out of the reach of children.  
 Precautionary statement: Prevention P273 Avoid release to the environment.  
 Precautionary statement: Disposal P501 Dispose of contents/container in accordance with national regulation.  
 2.3. Other hazards  
 None if used properly. 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: Cyanoacrylate Adhesive  
 Declaration of the ingredients according to CLP (EC) No 1272/2008:  
 Hazardous components  
 CAS-No.EC Number REACH-Reg No. content Classification  
 Bismaleimide 105391-33-1 424-600-0 0,25- 2,5 % Aquatic Acute 1  
 H400 Aquatic Chronic 1  
 H410 Bis(2-hydroxy-3-tert-butyl-5-methylphenyl)methane  
 119-47-1 204-327-1  
 01-2119496065-33  
 0,1- < 1 % Repr. 2  
 H361 Hydroquinone  
 123-31-9 204-617-8  
 01-2119524016-51  
 0,01- < 0,1 % Aquatic Acute 1  
 H400 Aquatic Chronic 1  
 H410 Carc. 2 H351 Muta. 2 H341 Acute T ox. 4; Oral H302  
 Eye Dam. 1 H318 Skin Sens. 1  
 H317 M factor (Acute Aquat T ox): 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  
 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  
 Prolonged or repeated contact may cause skin irritation.  
 Prolonged or repeated contact may cause eye irritation.  
 4.3. Indication of any immediate medical attention and special treatment needed

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media: Foam, extinguishing powder, carbon dioxide.

Fine water spray, Extinguishing media which must not be used for safety reasons:

None known

5.2. Special hazards arising from the substance or mixture In the event of a fire, carbon monoxide (CO) and carbon dioxide (CO<sub>2</sub>) can be released. Oxides of carbon, oxides of nitrogen, irritating organic vapors.

### 5.3. Advice for firefighters

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

Additional information: In case of fire, keep containers cool with water spray

## SECTION 6: Accidental release measures

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

Ensure adequate ventilation. Avoid contact with skin and eyes. Wear protective equipment.

6.2. Environmental precautions - Do not empty into drains / surface water / ground water.

6.3. Methods and material for containment and cleaning up

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. Dispose of contaminated material as waste according to Section 13

## SECTION 7: Handling and storage

7.1. Precautions for safe 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

Avoid skin and eye contact. See advice in section 8

Hygiene measures: Good industrial hygiene practices should be observed. 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 Refer to Technical Data Sheet

7.3. Specific end use(s) Cyanoacrylate

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

Occupational Exposure Limits: Ingredient [Regulated substance] ppm mg/m<sup>3</sup> Value type Short term exposure limit category / Remarks - Regulatory list

Hydroquinone - 123-31-9 [HYDROQUINONE]

0,5 Time Weighted Average

(TWA): EH40 WEL Biological Exposure Indices: None

8.2. Exposure controls: Engineering controls: Ensure good ventilation/extraction.

Respiratory protection: Ensure adequate ventilation.

An approved mask or respirator fitted with an organic vapour cartridge should be worn if the product is used in a poorly ventilated area. Filter type: A (EN 14387)

Hand protection: 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.

Chemical-resistant protective gloves (EN 374).

Suitable materials for short-term contact or splashes (recommended: at least protection index 2, corresponding to > 30 minutes permeation time as per EN 374):

nitrile rubber (NBR; >= 0.4 mm thickness)

Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to > 480 minutes permeation time as per EN 374): nitrile rubber (NBR; >= 0.4 mm thickness)

This information is based on literature references and on information provided by glove manufacturers, or is derived by analogy with similar substances. Please note that in practice the working life of chemical-resistant protective gloves may be considerably shorter than the permeation time determined in accordance with EN 374 as a result of the many influencing factors (e.g. temperature). If signs of wear and tear are noticed then the gloves should be replaced.

Eye protection: Safety glasses with sideshields or chemical safety goggles should be worn if there is a risk of splashing.

Protective eye equipment should conform to EN166.

Skin protection: Wear 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. Clear, Colorless, Straw - Odour threshold No data available / Not applicable pH Not applicable

Melting point No data available / Not applicable

Solidification temperature No data available / Not applicable

Initial boiling point No data available / Not applicable

Flash point 80 °C (176 °F) Evaporation rate No data available / Not applicable

Flammability No data available / Not applicable. Explosive limits No data available / Not applicable

Vapour pressure (50 °C (122 °F)) < 700 mbar Relative vapour density: No data available / Not applicable

Density (20 °C (68 °F)) 1,1 g/cm<sup>3</sup>

Bulk density No data available / Not applicable

Solubility No data available / Not applicable

Solubility (qualitative) Polymerises in presence of water.

Partition coefficient: n-octanol/water No data available / Not applicable

Auto-ignition temperature No data available / Not applicable

Decomposition 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

## 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 - Stable under normal conditions of storage and use.

10.5. Incompatible materials See section reactivity.

10.6. Hazardous decomposition products carbon oxides

## SECTION 11: Toxicological information

General toxicological information: Prolonged or repeated contact may cause skin irritation.

Prolonged or repeated contact may cause eye irritation.

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.

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

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.

Acute dermal toxicity:

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

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.

Serious eye damage/irritation:

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

Respiratory or skin sensitization: The mixture is classified based on threshold limits referring to the classified substances present in the mixture. Germ cell mutagenicity: The mixture is classified based on threshold limits referring to the classified substances present in the mixture

## SECTION 12: Ecological information

General ecological information: Do not empty into drains / surface water / ground water.

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

12.1. Toxicity (Fish):

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

octamethylcyclotetrasiloxane LC 50 (Oncorhynchus mykiss, 96 h): >= 0,022 mg/l

Aquatic Invertebrates: Product: Composition/information on ingredients

Specified substance(s): Methylsilanetriyl triacetate LC 50 (48 h): > 100 mg/l Results obtained on a similar product.

acetic acid...% EC 50 (Water flea (Daphnia magna), 48 h): > 1 000 mg/l

octamethylcyclotetrasiloxane EC 50 (Water flea (Daphnia magna), 48 h): > 0,015 mg/l

## 13.1 Waste treatment methods:

### 13.1. Waste treatment methods

Product disposal:

Dispose of in accordance with local and national regulations.

Collection and delivery to recycling enterprise or other registered elimination institution.

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.

Waste code 08 04 09\* waste adhesives and sealants containing organic solvents and other dangerous substances

The valid EWC waste code numbers are source-related. The manufacturer is therefore unable to specify EWC waste codes for the articles or products used in the various sectors. The EWC codes listed are intended as a recommendation for users. We will be happy to advise you

## SECTION 14: Transport information

### 14.1. UN number

ADR Not dangerous goods	RID Not dangerous goods	
ADN Not dangerous goods	IM DG Not dangerous goods	IATA Not dangerous goods

### 14.2. UN proper shipping name

ADR Not dangerous goods	RID Not dangerous goods	ADN Not dangerous goods
IM DG Not dangerous goods	IATA Not dangerous goods	

### 14.3. Transport hazard class(es)

ADR Not dangerous goods	RID Not dangerous goods	
ADN Not dangerous goods	M DG Not dangerous goods	IATA Not dangerous goods

### 14.4. Packing group

ADR Not dangerous goods	RID Not dangerous goods	ADN Not dangerous goods
IM DG Not dangerous goods	IATA Not dangerous goods	

### 14.5. Environmental hazards

ADR not applicable	RID not applicable	ADN not applicable
IM DG not applicable	IATA not applicable	

### 14.6. Special precautions for user

ADR not applicable	RID not applicable	ADN not applicable
IM DG not applicable	IATA not applicable	

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

Ozone Depleting Substance (ODS) (Regulation (EC) No 1005/2009): Not applicable

Prior Informed Consent (PIC) (Regulation (EU) No 649/2012): Not applicable

Persistent organic pollutants (Regulation (EU) 2019/1021): Not applicable

EU REACH, Annex XVII, Marketing and Use Restrictions (Regulation 1907/2006/EC): Not applicable

## SECTION 16: Other information

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VOC content  
(2010/75/EC)  
< 3,00 %

### 15.2. Chemical safety assessment

A chemical safety assessment has not 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.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

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.

H410 Very toxic to aquatic life with long lasting effects.

## SECTION 10: Stability and reactivity

10.1 Reactivity: Vulcanises at room temperature on contact with moisture in the air.

10.2 Chemical Stability: Stable at room temperature provided it is not on contact with air.

10.3 Possibility of hazardous reactions: No data available.

10.4 Conditions to avoid: No other information noted.

10.5 Incompatible Materials: Strong oxidizing agents. Water.

10.6 Hazardous Decomposition

Products: Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors. Amorphous silica.

During use or in contact with water, may generate hazardous substances.

## SECTION 11: Toxicological information

Information on likely routes of exposure Inhalation: No data available. Ingestion: No data available.

Skin Contact: No data available. Eye contact: No data available.

11.1 Information on toxicological effects:

Acute toxicity: Oral: Product: Not classified for acute toxicity based on available data.

Dermal: Product: Not classified for acute toxicity based on available data.

Inhalation: Product: Composition/information on ingredients

Specified substance(s): acetic acid...% LC 50 (Rat, 4 h): > 40 mg/l Vapor octamethylcyclotetrasiloxane

LC 50 (Rat, 4 h): > 36 mg/l Repeated dose toxicity: Product: Composition/information on ingredients

Specified substance(s): Methylsilanetriyl triacetate NOAEL (Rat(Female, Male), Oral): 50 mg/kg Results obtained on a similar product. NOAEL (Rat(Female, Male), Inhalation - vapor): 0,56 mg/l LOAEL (Rat(Female, Male), Inhalation - vapor): 2,2 mg/l Results obtained on a similar product.

acetic acid...% NOAEL (Rat, Feed (Oral)): 290 mg/kg octamethylcyclotetrasiloxane

NOAEL (Rat, Inhalation, 24 months): 1,820 mg/l NOAEL (Rabbit, Dermal, 3 weeks): 960 mg/kg

Skin Corrosion/Irritation: Product: Test results Not irritating Results obtained on a similar product.

Serious Eye Damage/Eye Irritation: Product: Test results Irritant. Results obtained on a similar product.

Respiratory or Skin Sensitization: Product: Composition/information on ingredients

Specified substance(s): Methylsilanetriyl triacetate OECD 406 (Guinea Pig) : Not a skin sensitizer.

octamethylcyclotetrasiloxane Pig : Not a skin sensitizer. Germ Cell Mutagenicity:

In vitro: Product: Composition/information on ingredients

Specified substance(s): Methylsilanetriyl triacetate Bacteria (OECD 471): No mutagenic effects.

(OECD 476)No mutagenic effects.Results obtained on a similar product.

Chromosomal aberration (OECD 473): No clastogenic effect.

acetic acid...% Bacteria (OECD 471): No mutagenic effects. Chromosomal aberration (OECD 473): No clastogenic effect.

(OECD 476)Inconclusive data octamethylcyclotetrasiloxane

Bacteria : No mutagenic components identified. Chromosomal aberration : No mutagenic components identified.

In vivo: Product: No data available.

Specified substance(s): acetic acid...% (According to a standardised method.)Results obtained on a similar product.No mutagenic effects. octamethylcyclotetrasiloxane

No mutagenic components identified. Carcinogenicity: Product: No data available.

Reproductive toxicity: Product: No data available (Fertility): Product: Composition/information on ingredients

Specified substance(s): Methylsilanetriyl triacetate Rat Female, Male (Ingestion): NOAEL (parent): >= 1 000 mg/kg NOAEL (F1):NOAEL (F2): Method: OECD 422

Developmental toxicity (Teratogenicity): Product: Composition/information on ingredients Specified substance(s): acetic acid...%

Rat (Ingestion): NOAEL (terato): 1 600 mg/kg NOAEL (mater): Method: According to a standardised method. Specific Target

Organ Toxicity - Single Exposure: Product: No data available. Specific Target Organ Toxicity - Repeated Exposure:

Product: Composition/information on ingredients

Specified substance(s): Methylsilanetriyl triacetate Not classified Aspiration Hazard: Product: No data available.

## SECTION 12: Ecological information

12.1 Toxicity: Acute toxicity: Fish:

Product: Composition/information on ingredients

Specified substance(s): Methylsilanetriyl triacetate LC 50 (96 h): > 100 mg/l Results obtained on a similar product.

acetic acid...% LC 50 (Oncorhynchus mykiss, 96 h): > 1 000 mg/l

octamethylcyclotetrasiloxane

LC 50 (Oncorhynchus mykiss, 96 h): >= 0,022 mg/l

Aquatic Invertebrates: Product: Composition/information on ingredients

Specified substance(s):

Methylsilanetriyl triacetate LC 50 (48 h): > 100 mg/l Results obtained on a similar product.

acetic acid...% EC 50 (Water flea (Daphnia magna), 48 h): > 1 000 mg/l

octamethylcyclotetrasiloxane

EC 50 (Water flea (Daphnia magna), 48 h): > 0,015 mg/l