

# **Safety Data Sheet**

LOCTITE 401 BO20G EN/CH

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SDS No.: 624092

V001.4

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

**Product name:** 

LOCTITE 401 BO20G EN/CH

Other means of identification:

LOCTITE 401 BO20G EN/CH

**Product code:** 

IDH231472

Recommended use of the chemical and restrictions on use

**Intended use:** 

Adhesive

Manufacturer/Importer/Distributor Representative Company

Henkel Thailand Ltd. The Offices at Centralworld,

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**Emergency Telephone for Chemical Accidents:** 

FOR EMERGENCIES ONLY (Spill, major leak, Fire, Exposure, or Accident). Call CHEMTREC: +1 703-741-5970

# Section 2. Hazards identification

### **GHS Classification:**

<u>Hazard Class</u> <u>Hazard Category</u> <u>Target organ</u>

Skin corrosion/irritation Category 2
Serious eye damage/eye irritation
Specific target organ toxicity - Category 3

Category 3 respiratory tract irritation

single exposure

### **GHS** label elements:

# Hazard pictogram:



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#### Signal word:

Warning

### **Hazard statement:**

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

#### **Precaution:**

#### **Prevention:**

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P264 Wash hands thoroughly after handling.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

### Response:

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

P304+P340+P312 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or physician if you feel unwell.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P332+P313 If skin irritation occurs: Get medical advice/attention.

P337+P313 If eye irritation persists: Get medical advice/attention.

P362+P364 Take off contaminated clothing and wash it before reuse.

#### Storage:

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

#### Disposal:

P501 Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

# Section 3. Composition / information on ingredients

### **Substance or Mixture:**

Mixture

## **Declaration of hazardous chemical:**

Hazard component CAS-No.	Content	GHS Classification
Ethyl 2-cyanoacrylate	60- 100 %	Flammable liquids 4
7085-85-0		H227
		Skin corrosion/irritation 2
		H315
		Serious eye damage/eye irritation 2A
		H319
		Specific target organ toxicity - single exposure 3
		H335

# Section 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.

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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).

# Section 5. Fire fighting measures

### Suitable extinguishing media:

Foam, extinguishing powder, carbon dioxide.

Fine water spray

# Specific hazards arising from the chemical:

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

In case of fire, keep containers cool with water spray.

#### Special protection equipment and precautions for firefighters:

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

## Section 6. Accidental release measures

## Personal precautions:

Avoid contact with skin and eyes.

Ensure adequate ventilation.

Wear protective equipment.

See advice in section 8

### **Environmental precautions:**

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

### 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.

Dispose of contaminated material as waste according to Section 13.

## Section 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

Avoid skin and eye contact.

See advice in section 8

### Storage:

Ensure good ventilation/extraction.

Refer to Technical Data Sheet

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### Section 8. Exposure controls / personal protection

### Components with specific control parameters for workplace:

CYANOACRYLATES, ETHYL AND METHYL 7085-85-0	Value type	Short Term Exposure Limit (STEL):
	ppm	1
	Remarks	ACGIH
CYANOACRYLATES, ETHYL AND METHYL 7085-85-0	Value type	Time Weighted Average (TWA):
	ppm	0.2
	Remarks	ACGIH

#### **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:

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.

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:

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.

## **Body protection:**

Wear suitable protective clothing.

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

#### **Engineering controls:**

Provide local and general exhaust ventilation to effectively remove and prevent buildup of any vapors or mists generated from the handling of this product.

### General protection and hygiene measures:

The workplace should be equipped with an emergency shower and eye-rinsing facility.

### Hygienic measures:

Wash hands before work breaks and after finishing work.

Do not eat, drink or smoke while working.

Take off contaminated clothing and wash before reuse.

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Appearance: colourless to yellowish

liquid

Odor: Sharp

Odor threshold (CA): No data available.

pH: Not applicable, Product reacts with water.Melting point / freezing point: Not applicable, Product is a liquid

 Specific gravity:
 No data available.

 Boiling point:
 > 149 °C (> 300.2 °F)

 Flash point:
 80 - 93 °C (176 - 199.4 °F)

Evaporation rate:
Flammability (solid, gas):
No data available.
Lower explosive limit:
No data available.
Vapor pressure:
No data available.
Vapor pressure:

No data available.
Vapor pressure:

No data available.

(; 50 °C (122 °F))

Vapor density: > 1

**Density:** 1.1 g/cm3

**Solubility:** Polymerises in presence of water.

Partition coefficient: n- No data available.

 ${\bf octanol/water:}$ 

Auto ignition:No data available.Decomposition temperature:No data available.

Viscosity: 100.0 - 120.0 mPa.s (Brookfield; Instrument: LVF; 25 °C (77 °F); speed of rotation: 30

min-1; Spindle No: 1; Method: ;; LCT STM 10; Viscosity Brookfield)

70.0 - 110.0 mPa.s (Cone and plate; Instrument: Physica MC 100 (or equivalent), Cone CP50-1; 25 °C (77 °F); Shear gradient: 3,000 s-1; Method: ;; LCT STM 740; cone &

plate viscosity)

**VOC content:** < 3 % < 33 g/l

(2010/75/EC)

# Section 10. Stability and reactivity

#### Chemical stability:

Stable under recommended storage conditions.

Possibility of hazardous reactions:

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

Conditions to avoid:

Stable under normal conditions of storage and use.

Hazardous decomposition products:

carbon oxides.

# Section 11. Toxicological information

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

>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

**Health Effects:** 

Skin:Causes skin irritation.Eyes:Causes serious eye irritation.Inhalation:May cause respiratory irritation.

Symptoms of Overexposure: None known.

# Acute oral toxicity:

Ethyl 2-cyanoacrylate	Value type	LD50
7085-85-0	Value	> 5,000 mg/kg
	Species	rat
	Method	equivalent or similar to OECD Guideline 423 (Acute Oral toxicity)

# Acute dermal toxicity:

Ethyl 2-cyanoacrylate	Value type	LD50
7085-85-0	Value	> 2,000 mg/kg
	Species	rabbit
	Method	equivalent or similar to OECD Guideline 402 (Acute Dermal
		Toxicity)

## Skin corrosion/irritation:

Ethyl 2-cyanoacrylate	Result	slightly irritating
7085-85-0	Exposure time	24 h
	Species	rabbit
	Method	equivalent or similar to OECD Guideline 404 (Acute Dermal
		Irritation / Corrosion)

# Serious eye damage/irritation:

Ethyl 2-cyanoacrylate	Result	irritating
7085-85-0	Exposure time	
	Species	rabbit
	Method	equivalent or similar to OECD Guideline 405 (Acute Eye Irritation
		/ Corrosion)

# Respiratory or skin sensitization:

Ethyl 2-cyanoacrylate	Result	not sensitising
7085-85-0	Test type	Skin sensitisation
	Species	guinea pig
	Method	not specified

## Germ cell mutagenicity:

Ethyl 2-cyanoacrylate	Result	negative
7085-85-0	Type of study / Route of administration	bacterial reverse mutation assay (e.g Ames test)
	Metabolic activation / Exposure time	with and without
	Method	equivalent or similar to OECD Guideline 471 (Bacterial
		Reverse Mutation Assay)
Ethyl 2-cyanoacrylate	Result	negative
7085-85-0	Type of study / Route of administration	in vitro mammalian chromosome aberration test
	Metabolic activation / Exposure time	with and without
	Method	OECD Guideline 473 (In vitro Mammalian Chromosome
		Aberration Test)
Ethyl 2-cyanoacrylate	Result	negative
7085-85-0	Type of study / Route of administration	mammalian cell gene mutation assay
	Metabolic activation / Exposure time	with and without
	Method	OECD Guideline 476 (In vitro Mammalian Cell Gene
		Mutation Test)

# Section 12. Ecological information

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

### **Ecotoxicity:**

## Persistence and degradability:

Ethyl 2-cyanoacrylate	Result	not readily biodegradable.
7085-85-0	Route of application	aerobic
	Degradability	57 %
	Method	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)

### Bioaccumulative potential / Mobility in soil:

Ethyl 2-cyanoacrylate	LogPow	0.776
7085-85-0	Temperature	22 ℃
	Method	EU Method A.8 (Partition Coefficient)

# Section 13. Disposal considerations

## **Product**

# Method of disposal:

Dispose of in accordance with local and national regulations.

## **Packaging**

## Disposal of uncleaned packages:

Packaging that cannot be cleaned are to be disposed of in the same manner as the product.

# Section 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

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### LOCTITE 401 BO20G EN/CH

### Air transport IATA:

Class: 9
Packing group: III
Packaging instructions (passenger): 964
Packaging instructions (cargo): 964
UN no.: 3334
Label: 9

Proper shipping name: Aviation regulated liquid, n.o.s. (Cyanoacrylate ester)

Additional Information IATA: Primary packs containing less than 500ml are unregulated by this

mode of transport and may be shipped unrestricted.

# **Section 15. Regulatory information**

#### **Regulatory Information:**

Ministry of Industry Notice. The system to classify and communicate the hazard of hazardous material, BE. 2555

#### Global inventory status:

Regulatory list Notification
TSCA yes
DSL yes
ISHL (JP) yes
IECSC yes
TCSI yes
EINECS yes

# Section 16. Other information

#### Disclaimer:

This Safety Data Sheet has been generated based on Ministry of Industry Notice. The system to classify and communicate the hazard of hazardous material, BE. 2555 only. No warranty or representation of any kind is given with respect to the substantive or export laws of any other jurisdiction or country. Please confirm that the information provided herein conforms to the substantive export or other law of any other jurisdiction prior to export. Please contact Henkel Product Safety and Regulatory Affairs for additional assistance.

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