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

Product name:
LOCTITE HY 4070 CR 11G KIT PT A

Other means of identification:
LOCTITE HY 4070 CR 11G KIT PT A

Product code:
IDH2217629

Recommended use of the chemical and restrictions on use

Intended use:
Adhesive

Manufacturer/Importer/Distributor Representative Company

Henkel Thailand Ltd. The Offices at Centralworld,
35th Floor, 999/9 Rama 1 Rd.,
Kwang Patumwan, Khet Patumwan,
10330 Bangkok

Thailand

Phone: +66 (2209) 8000
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E-mail address of person responsible for Safety Data Sheet:
ap-ua-psra.sea@henkel.com

Emergency Telephone for Chemical Accidents:
FOR EMERGENCIES ONLY (Spill, major leak, Fire, Exposure, or Accident). Call: +662 209 8008

Section 2. Hazards identification

GHS Classification:

Hazard Class	Hazard Category	Target organ
Skin corrosion/irritation	Category 2	
Serious eye damage/eye irritation	Category 2	
Skin sensitizer	Category 1	
Specific target organ toxicity - single exposure	Category 3	respiratory tract irritation

GHS label elements:

Hazard pictogram:



Signal word:
Warning

Hazard statement:
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
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.
P272 Contaminated work clothing should not be allowed out of the workplace.
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.
P333+P313 If skin irritation or rash 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 7085-85-0	60- 100 %	Flammable liquids 4 H227 Skin corrosion/irritation 2 H315 Serious eye damage/eye irritation 2A H319 Specific target organ toxicity - single exposure 3 H335
maleic anhydride 108-31-6	< 0.01 %	Acute toxicity 4; Oral H302 Acute toxicity 5; Dermal H313 Skin corrosion/irritation 1 H314 Serious eye damage/eye irritation 1 H318 Respiratory sensitizer 1 H334 Skin sensitizer 1A H317 Specific target organ toxicity - repeated exposure 1; Inhalation H372 Acute hazards to the aquatic environment 3 H402

Section 4. First aid measures

Inhalation:
Move to fresh air. If symptoms persist, seek medical advice.

Skin contact:
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.
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.
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.

Eye contact:
If the eye is bonded closed, release eyelashes with warm water by covering with wet pad.
Keep eye covered until debonding is complete, usually within 1-3 days.
Cyanoacrylate will bond to eye protein and will cause periods of weeping which will help to debond the adhesive.
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).

Indication of immediate medical attention and special treatment needed:
See section: Description of first aid measures

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), carbon dioxide (CO2) and nitrogen oxides (NOx) can be released.

Special protection equipment and precautions for firefighters:
Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear.

Additional fire fighting advice:
In case of fire, keep containers cool with water spray.

Section 6. Accidental release measures

Personal precautions:
Avoid contact with skin and eyes.
Wear protective equipment.
Ensure adequate ventilation.
See advice in section 8

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

Clean-up methods:
Dispose of contaminated material as waste according to Section 13.
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.

Section 7. Handling and storage

Handling:
Avoid skin and eye contact.
See advice in section 8
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:
Refer to Technical Data Sheet.

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
MALEIC ANHYDRIDE, INHALABLE FRACTION AND VAPOR 108-31-6	**Value type**	Time Weighted Average (TWA):
	mg/m^3	0.01
	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.

Section 9. Physical and chemical properties

Appearance:	Colourless / Colorless to light yellow liquid
Odor:	characteristic
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: (None)	80 - 93 °C (176 - 199.4 °F)
Evaporation rate:	No data available.
Flammability (solid, gas):	No data available.
Lower explosive limit:	No data available.
Upper explosive limit:	No data available.
Vapor pressure: (; 20 °C (68 °F))	< 700 mbar
Vapor density:	> 1
Density:	1.05 g/cm3
Solubility:	No data available.
Partition coefficient: n-octanol/water:	No data available.
Auto ignition:	No data available.
Decomposition temperature:	No data available.
Viscosity:	>= 2,000.0 mPa.s (Cone and plate; Instrument: Physica MC 100 (or equivalent), Cone MK 22; 25 °C (77 °F); Shear gradient: 20 s-1; Method: ;; LCT STM 738; Rheological Data from flow curves)
VOC content: (2010/75/EC)	< 3 %

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:
None if used for intended purpose.

Section 11. Toxicological information

General toxicological information: 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

Symptoms of Overexposure**:** RESPIRATORY: Irritation, coughing, shortness of breath, chest tightness.
SKIN: Redness, inflammation.
EYE: Irritation, conjunctivitis.

Acute oral toxicity:

Ethyl 2-cyanoacrylate 7085-85-0	Value type	LD50
	Value	> 5,000 mg/kg
	Species	rat
	Method	equivalent or similar to OECD Guideline 423 (Acute Oral toxicity)
maleic anhydride 108-31-6	Value type	LD50
	Value	1,090 mg/kg
	Species	rat
	Method	OECD Guideline 401 (Acute Oral Toxicity)

Acute dermal toxicity:

Ethyl 2-cyanoacrylate 7085-85-0	Value type	LD50
	Value	> 2,000 mg/kg
	Species	rabbit
	Method	equivalent or similar to OECD Guideline 402 (Acute Dermal Toxicity)
maleic anhydride 108-31-6	Value type	LD50
	Value	2,620 mg/kg
	Species	rabbit
	Method	not specified

Skin corrosion/irritation:

Ethyl 2-cyanoacrylate 7085-85-0	Result	slightly irritating
	Exposure time	24 h
	Species	rabbit
	Method	equivalent or similar to OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
maleic anhydride 108-31-6	Result	highly irritating
	Exposure time	
	Species	rabbit
	Method	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

Serious eye damage/irritation:

Ethyl 2-cyanoacrylate 7085-85-0	Result	irritating
	Exposure time	
	Species	rabbit
	Method	equivalent or similar to OECD Guideline 405 (Acute Eye Irritation / Corrosion)
maleic anhydride 108-31-6	Result	corrosive
	Exposure time	
	Species	rabbit
	Method	OECD Guideline 405 (Acute Eye Irritation / Corrosion)

Respiratory or skin sensitization:

Ethyl 2-cyanoacrylate 7085-85-0	Result	not sensitising
	Test type	Guinea pig maximisation test
	Species	guinea pig
	Method	equivalent or similar to OECD Guideline 406 (Skin Sensitisation)
maleic anhydride 108-31-6	Result	sensitising
	Test type	Guinea pig maximisation test
	Species	guinea pig
	Method	OECD Guideline 406 (Skin Sensitisation)

Germ cell mutagenicity:

Ethyl 2-cyanoacrylate 7085-85-0	Result	negative
	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 7085-85-0	Result	negative
	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 7085-85-0	Result	negative
	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)
maleic anhydride 108-31-6	Result	negative
	Type of study / Route of administration	bacterial reverse mutation assay (e.g Ames test)
	Metabolic activation / Exposure time	with and without
	Method	OECD Guideline 471 (Bacterial Reverse Mutation Assay)
maleic anhydride 108-31-6	Result	negative
	Type of study / Route of administration	inhalation
	Metabolic activation / Exposure time	
	Species	rat
	Method	OECD Guideline 475 (Mammalian Bone Marrow Chromosome Aberration Test)

Repeated dose toxicity:

maleic anhydride 108-31-6	Result	NOAEL=40 mg/kg
	Route of application	oral: feed
	Exposure time / Frequency of treatment	90 ddaily
	Species	rat
	Method	not specified

Section 12. Ecological information

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

Ecotoxicity:

Toxicity:

maleic anhydride 108-31-6	Value type	LC50
	Value	75 mg/l
	Acute Toxicity Study	Fish
	Exposure time	96 h
	Species	Lepomis macrochirus

	Method	OECD Guideline 203 (Fish, Acute Toxicity Test)
maleic anhydride 108-31-6	Value type	EC50
	Value	77 mg/l
	Acute Toxicity Study	Daphnia
	Exposure time	48 h
	Species	Daphnia magna
	Method	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
maleic anhydride 108-31-6	Value type	EC50
	Value	29 mg/l
	Acute Toxicity Study	Algae
	Exposure time	72 h
	Species	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)
	Method	OECD Guideline 201 (Alga, Growth Inhibition Test)
	Value type	EC10
	Value	23 mg/l
	Acute Toxicity Study	Algae
	Exposure time	72 h
	Species	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)
	Method	OECD Guideline 201 (Alga, Growth Inhibition Test)
maleic anhydride 108-31-6	Value type	EC10
	Value	44.6 mg/l
	Acute Toxicity Study	Bacteria
	Exposure time	
	Species	Pseudomonas putida
	Method	DIN 38412, part 8 (Pseudomonas Zellvermehrungshemm-Test)

Persistence and degradability:

Ethyl 2-cyanoacrylate 7085-85-0	Result	not readily biodegradable.
	Route of application	aerobic
	Degradability	57 %
	Method	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
maleic anhydride 108-31-6	Result	readily biodegradable
	Route of application	aerobic
	Degradability	98 %
	Method	OECD Guideline 301 E (Ready biodegradability: Modified OECD Screening Test)

Bioaccumulative potential / Mobility in soil:

Ethyl 2-cyanoacrylate 7085-85-0	LogPow	0.776
	Temperature	22 °C
	Method	EU Method A.8 (Partition Coefficient)
maleic anhydride 108-31-6	LogPow	-2.61
	Temperature	19.8 °C
	Method	OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)

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

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
TCSI	yes
TSCA	yes
AIIC	yes
DSL	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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