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

Product name:
LOCTITE 4031 BO20G EGFD

Other means of identification:
LOCTITE 4031 BO20G EGFD

Product code:
IDH231787

Recommended use of the chemical and restrictions on use

Intended use:
Cyanoacrylate

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
Fax-no.: +66 (2209) 8008

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:

Substance or mixture is not classified as hazardous according to Globally Harmonized System(GHS).

GHS label elements:

Substance or mixture is not classified as hazardous according to Globally Harmonized System(GHS).

Section 3. Composition / information on ingredients

Substance or Mixture:
Mixture

Declaration of hazardous chemical:

Hazard component CAS-No.	Content	GHS Classification
Bis(2-hydroxy-3-tert-butyl-5-methylphenyl)methane 119-47-1	0.1- 1 %	Toxic to reproduction 1B H360
Hydroquinone 123-31-9	< 0.1 %	Acute toxicity 4; Oral H302 Serious eye damage/eye irritation 1 H318 Skin sensitizer 1 H317 Germ cell mutagenicity 2 H341 Carcinogenicity 2 H351 Acute hazards to the aquatic environment 1 H400 Chronic hazards to the aquatic environment 1 H410

Section 4. First aid measures

Inhalation:
Move to fresh air. If symptoms persist, seek medical advice.
If not breathing, give artificial respiration. If breathing is difficult, oxygen should be administered by qualified personnel.

Skin contact:
Rinse with running water and soap.
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.
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.
If symptoms develop and persist, get medical attention.

Eye contact:
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Seek medical attention immediately.
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:
Seek immediate medical attention. Do not induce vomiting.
Never give anything by mouth to an unconscious person.
Ensure breathing passages are not obstructed. The product will polymerize rapidly and bond to the mouth making it almost impossible to swallow. Saliva will separate any solidified product in several hours. Prevent the patient from swallowing any separated mass.

Section 5. Fire fighting measures

Suitable extinguishing media:

Use extinguishing measures appropriate to local circumstances and the surrounding environment.
Water spray (fog), foam, dry chemical or carbon dioxide.

Specific hazards arising from the chemical:
None

Special protection equipment and precautions for firefighters:
Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear.
Keep unnecessary personnel away.
In case of fire, keep containers cool with water spray.

Hazardous combustion products:
Toxic fumes.
Irritating vapors.
Oxides of carbon.

Section 6. Accidental release measures

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

Environmental precautions:
Do not empty into drains / surface water / ground water.
Prevent further leakage or spillage if safe to do so.

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:
Prevent contact with eyes, skin and clothing. Do not breathe vapor and mist. Wash thoroughly after handling.
Use only with adequate ventilation.
Keep container closed.
See advice in section 8
Avoid contact with fabric or paper goods. Contact with these materials may cause rapid polymerization which can generate smoke and strong irritating vapors, and cause thermal burns.
When using, do not eat, drink or smoke.

Storage:
Refer to Technical Data Sheet.

Section 8. Exposure controls / personal protection

Components with specific control parameters for workplace:

HYDROQUINONE 123-31-9	**Value type**	Time Weighted Average (TWA):
	mg/m³	1
	Remarks	ACGIH
HYDROQUINONE 123-31-9	**Value type**	Time Weighted Average (TWA):
	mg/m³	2
	Remarks	TH OEL

Respiratory protection:
Use NIOSH approved respirator if there is potential to exceed exposure limit(s).

Eye protection:
Wear safety glasses with side shields.
Full face protection should be used if the potential for splashing or spraying of product exists.
Protective eye equipment should conform to EN166.

Body protection:
Use chemical resistant, impermeable clothing including gloves and either an apron or body suit to prevent skin contact.
Use nitrile gloves and aprons as necessary to prevent contact. Do not use PVC, nylon or cotton.
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 Liquid
Odor:	Odourless / Odorless
Odor threshold (CA):	No data available.
pH:	Not applicable
Melting point / freezing point:	No data available.
Specific gravity:	> 0.1
Boiling point:	> 149 °C (> 300.2 °F)
Flash point:	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:	< 0.2 mm hg
(; 50 °C (122 °F))	< 700 mbar
Vapor density:	No data available.
Density:	1.1 g/cm3
Solubility:	Polymerises in presence of water.
Partition coefficient: n-octanol/water:	No data available.
Auto ignition:	No data available.

Decomposition temperature: No data available.
Viscosity: 1,100.0 - 1,650.0 mPa.s (Brookfield; Instrument: LVF; 25 °C (77 °F); speed of rotation: 12 min-1; Spindle No: 2; Method: ;; LCT STM 10; Viscosity Brookfield)

VOC content: < 3 %
(2010/75/EC)

Section 10. Stability and reactivity

Reactivity/Incompatible materials:
Water.
Alcohols.
Amines.
Bases.
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:
Keep away from heat, ignition sources and incompatible materials.
Protect from direct sunlight.
Store away from incompatible materials.

Section 11. Toxicological information

Symptoms of Overexposure**:** None known.

Acute oral toxicity:

Bis(2-hydroxy-3-tert-butyl-5-methylphenyl)methane 119-47-1	Value type	LD50
	Value	> 10,000 mg/kg
	Species	rat
	Method	not specified
Hydroquinone 123-31-9	Value type	LD50
	Value	367 mg/kg
	Species	rat
	Method	OECD Guideline 401 (Acute Oral Toxicity)

Acute dermal toxicity:

Bis(2-hydroxy-3-tert-butyl-5-methylphenyl)methane 119-47-1	Value type	LD50
	Value	> 10,000 mg/kg
	Species	rat
	Method	not specified
Hydroquinone 123-31-9	Value type	LD50
	Value	> 2,000 mg/kg
	Species	rabbit
	Method	OECD Guideline 402 (Acute Dermal Toxicity)

Skin corrosion/irritation:

Hydroquinone 123-31-9	Result	not irritating
	Exposure time	24 h
	Species	rabbit
	Method	Weight of evidence

Serious eye damage/irritation:

Hydroquinone 123-31-9	Result	corrosive
	Exposure time	
	Species	human
	Method	Weight of evidence

Respiratory or skin sensitization:

Hydroquinone 123-31-9	Result	sensitising
	Test type	Guinea pig maximisation test
	Species	guinea pig
	Method	equivalent or similar to OECD Guideline 406 (Skin Sensitisation)
Hydroquinone 123-31-9	Result	sensitising
	Test type	Mouse local lymphnode assay (LLNA)
	Species	mouse
	Method	equivalent or similar to OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)

Germ cell mutagenicity:

Bis(2-hydroxy-3-tert-butyl-5-methylphenyl)methane 119-47-1	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)
Hydroquinone 123-31-9	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)
Hydroquinone 123-31-9	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)
Hydroquinone 123-31-9	Result	positive
	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)
Hydroquinone 123-31-9	Result	positive
	Type of study / Route of administration	intraperitoneal
	Metabolic activation / Exposure time	
	Species	mouse
	Method	equivalent or similar to OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
Hydroquinone 123-31-9	Result	negative
	Type of study / Route of administration	oral: gavage
	Metabolic activation / Exposure time	
	Species	rat
	Method	equivalent or similar to OECD Guideline 478 (Genetic Toxicology: Rodent Dominant Lethal Test)
Hydroquinone 123-31-9	Result	positive
	Type of study / Route of administration	intraperitoneal
	Metabolic activation / Exposure time	
	Species	mouse
	Method	equivalent or similar to OECD Guideline 483 (Mammalian Spermatogonial Chromosome Aberration Test)

Repeated dose toxicity:

Bis(2-hydroxy-3-tert-butyl-5-methylphenyl)methane 119-47-1	Result	NOAEL=12.7 mg/kg
	Route of application	oral: feed
	Exposure time / Frequency of treatment	18 monthsdaily
	Species	rat
	Method	not specified
Hydroquinone 123-31-9	Result	NOAEL=50 mg/kg
	Route of application	oral: gavage
	Exposure time / Frequency of treatment	13 w5 d/w
	Species	rat
	Method	not specified
Hydroquinone 123-31-9	Result	NOAEL=73.9 mg/kg
	Route of application	dermal
	Exposure time / Frequency of treatment	13 w6 h/d, 5 d/w
	Species	rat
	Method	equivalent or similar to OECD Guideline 411 (Subchronic Dermal Toxicity: 90-Day Study)

Section 12. Ecological information

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

Toxicity:

Hydroquinone 123-31-9	Value type	LC50
	Value	0.638 mg/l
	Acute Toxicity Study	Fish
	Exposure time	96 h
	Species	Oncorhynchus mykiss
	Method	OECD Guideline 203 (Fish, Acute Toxicity Test)
	Value type	NOEC
	Value	0.066 mg/l
	Acute Toxicity Study	Fish
	Exposure time	32 d
	Species	Pimephales promelas
	Method	OECD Guideline 210 (fish early life stage toxicity test)
Hydroquinone 123-31-9	Value type	EC50
	Value	0.134 mg/l
	Acute Toxicity Study	Daphnia
	Exposure time	48 h
	Species	Daphnia magna
	Method	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Hydroquinone 123-31-9	Value type	EC50
	Value	0.330 mg/l
	Acute Toxicity Study	Algae
	Exposure time	72 h
	Species	Raphidocelis subcapitata (new name: Pseudokirchneriella subcapitata)
	Method	OECD Guideline 201 (Alga, Growth Inhibition Test)
	Value type	NOEC
	Value	0.019 mg/l
	Acute Toxicity Study	Algae
	Exposure time	72 h
	Species	Raphidocelis subcapitata (new name: Pseudokirchneriella subcapitata)
	Method	OECD Guideline 201 (Alga, Growth Inhibition Test)
Hydroquinone 123-31-9	Value type	EC50
	Value	71 mg/l
	Acute Toxicity Study	Bacteria
	Exposure time	2 h
	Species	activated sludge of a predominantly domestic sewage

	Method	other guideline:

Persistence and degradability:

Bis(2-hydroxy-3-tert-butyl-5-methylphenyl)methane 119-47-1	Result	under test conditions no biodegradation observed
	Route of application	aerobic
	Degradability	0 %
	Method	OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))
Hydroquinone 123-31-9	Result	readily biodegradable
	Route of application	aerobic
	Degradability	> 75 - 81 %
	Method	EU Method C.4-E (Determination of the "Ready" BiodegradabilityClosed Bottle Test)

Bioaccumulative potential / Mobility in soil:

Bis(2-hydroxy-3-tert-butyl-5-methylphenyl)methane 119-47-1	Bioconcentration factor (BCF)	320 - 780
	Exposure time	60 d
	Species	Cyprinus carpio
	Temperature	
	Method	OECD Guideline 305 E (Bioaccumulation: Flow-through Fish Test)
Bis(2-hydroxy-3-tert-butyl-5-methylphenyl)methane 119-47-1	LogPow	6.25
	Temperature	20 °C
	Method	OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)
Hydroquinone 123-31-9	LogPow	0.59
	Temperature	
	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

Air transport IATA:
Not dangerous goods

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
ISHL (JP)	yes
KECI (KR)	yes
PICCS (PH)	yes
IECSC	yes
NZIOC	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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