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

Product name:
LOCTITE STYCAST 2850FT BL

Other means of identification:
LOCTITE STYCAST 2850FT BL

Product code:
IDH2060782
Recommended use of the chemical and restrictions on use

Intended use:
Epoxy resin
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:

Hazard Class	Hazard Category
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2
Skin sensitizer	Category 1
Germ cell mutagenicity	Category 2
Carcinogenicity	Category 2
Chronic hazards to the aquatic environment	Category 3

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.
H341 Suspected of causing genetic defects.
H351 Suspected of causing cancer.
H412 Harmful to aquatic life with long lasting effects.

Precaution:

Prevention:
P201 Obtain special instructions before use.
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.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response:
P302+P352 IF ON SKIN: Wash with plenty of water.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313 IF exposed or concerned: Get medical advice/attention.
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.

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
Aluminium oxide - non fibrous form 1344-28-1	60- 100 %	
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, number average molecular weight ≤ 700 25068-38-6	10- 30 %	Skin corrosion/irritation 2 H315 Serious eye damage/eye irritation 2A H319 Skin sensitizer 1 H317 Acute hazards to the aquatic environment 2 H401 Chronic hazards to the aquatic environment 2 H411
butyl glycidyl ether 2426-08-6	1- 10 %	Flammable liquids 3 H226 Acute toxicity 4; Oral H302 Acute toxicity 4; Inhalation H332 Acute toxicity 5; Dermal H313 Skin sensitizer 1 H317 Germ cell mutagenicity 2 H341 Carcinogenicity 2 H351 Toxic to reproduction 2 H361 Specific target organ toxicity - single exposure 3 H335 Acute hazards to the aquatic environment 2 H401 Chronic hazards to the aquatic environment 2 H411

Section 4. First aid measures

Inhalation:
Move to fresh air.
If not breathing, give artificial respiration.
If breathing is difficult, give oxygen.
Get medical attention.

Skin contact:
Immediately flush skin with plenty of water (using soap, if available).
Remove contaminated clothing and footwear.
Wash clothing before reuse.
Get medical attention.

Eye contact:
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Get medical attention.

Ingestion:
DO NOT induce vomiting unless directed to do so by medical personnel.
Never give anything by mouth to an unconscious person.
Get medical attention.

Symptoms/effects, acute and delayed:
Eye, skin and respiratory disorders.

Section 5. Fire fighting measures

Suitable extinguishing media:
Water spray (fog), foam, dry chemical or carbon dioxide.

Specific hazards arising from the chemical:
Closed containers may rupture (due to build up of pressure) when exposed to extreme heat.
This product is combustible at high temperatures.

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

Hazardous combustion products:
Carbon dioxide.
Carbon monoxide.
Hydrocarbons.

Section 6. Accidental release measures

Environmental precautions:
Do not allow product to enter sewer or waterways.

Clean-up methods:
Evacuate and ventilate spill area; dike spill to prevent entry into water system; wear full protective equipment during clean-up.
Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
Scrape up as much material as possible.
Store in a partly filled, closed container until disposal.
Wash spillage site thoroughly with soap and water or detergent solution.

Section 7. Handling and storage

Handling:
Use only with adequate ventilation.
Prevent contact with eyes, skin and clothing. Do not breathe vapor and mist. Wash thoroughly after handling.
See advice in section 8

Storage:
Keep container tightly sealed.
Keep container in a well ventilated place.
Keep away from heat and direct sunlight.
< + 25 °C

Section 8. Exposure controls / personal protection

Components with specific control parameters for workplace:

ALPHA-ALUMINA, RESPIRABLE DUST 1344-28-1	**Value type**	Time Weighted Average (TWA):
	mg/m³	5
	Remarks	TH OEL
Particles (insoluble or poorly soluble) not otherwise specified, respirable particles 1344-28-1	**Value type**	Time Weighted Average (TWA):
	mg/m³	3
	Remarks	ACGIH
Particles (insoluble or poorly soluble) not otherwise specified, inhalable particles 1344-28-1	**Value type**	Time Weighted Average (TWA):
	mg/m³	10
	Remarks	ACGIH
Aluminum metal and insoluble compounds, respirable fraction 1344-28-1	**Value type**	Time Weighted Average (TWA):
	mg/m³	1
	Remarks	ACGIH
ALPHA-ALUMINA, INHALABLE DUST 1344-28-1	**Value type**	Time Weighted Average (TWA):
	mg/m³	15
	Remarks	TH OEL
N-BUTYL GLYCIDYL ETHER (BGE) 2426-08-6	**Value type**	Time Weighted Average (TWA):
	ppm	3
	Remarks	ACGIH
N-BUTYL GLYCIDYL ETHER (BGE) 2426-08-6	**Value type**	Time Weighted Average (TWA):
	ppm	50
	Remarks	TH OEL
N-BUTYL GLYCIDYL ETHER (BGE) 2426-08-6	**Value type**	Skin designation:
	Remarks	ACGIH Danger of cutaneous absorption

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

Eye protection:
Safety goggles or safety glasses with side shields.
Full face protection should be used if the potential for splashing or spraying of product exists.

Body protection:
Use impermeable gloves and protective clothing as necessary to prevent skin contact.

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:	Blue liquid
Odor:	Pungent
Odor threshold (CA):	No data available.
pH:	Not applicable, Product is non-soluble (in water).
Melting point / freezing point:	Not applicable, Product is a liquid
Specific gravity:	2.4
Boiling point:	> 150 °C (> 302 °F)
Flash point:	> 93.3 °C (> 199.94 °F)
Evaporation rate:	Not determined
Flammability (solid, gas):	No data available.
Lower explosive limit:	No data available.
Upper explosive limit:	No data available.
Vapor pressure:	< 0.1 mm hg
(None; 25 °C (77 °F); 20 °C (68 °F))	< 0.1 hPa
Vapor density:	> 1
Density:	2.43 g/cm3
Solubility:	No data available.
Partition coefficient: n-octanol/water:	No data available.
Auto ignition:	Not available.
Decomposition temperature:	No data available.
Viscosity:	No data available.
VOC content:	< 5 g/l

Section 10. Stability and reactivity

Reactivity/Incompatible materials:
Strong oxidizing agents.
Strong acids and strong bases.
Chemical stability:
Stable under recommended storage conditions.
Possibility of hazardous reactions:
None under normal processing.
Conditions to avoid:
Elevated temperatures.
Hazardous decomposition products:
Carbon dioxide.
Carbon monoxide.
Oxides of nitrogen.
Aldehydes.
Irritating organic vapours.

Section 11. Toxicological information

Oral toxicity:	Acute toxicity estimate (ATE) : > 2,000 mg/kg Method: Calculation method
Inhalative toxicity:	Acute toxicity estimate (ATE) : > 20 mg/l Exposure time: 4 h Test atmosphere: Vapor. Method: Calculation method

Health Effects:

Ingestion:	May cause gastrointestinal tract irritation if swallowed.
Skin:	Causes skin irritation. May cause allergic skin reaction.
Eyes:	Causes serious eye irritation.
Inhalation:	May cause respiratory tract irritation.
Route of exposure:	Skin, Inhalation, Eyes Ingestion
Symptoms of Overexposure**:**	None known.

Acute oral toxicity:

Aluminium oxide - non fibrous form 1344-28-1	Value type	LD50
	Value	> 10,000 mg/kg
	Species	rat
	Method	equivalent or similar to OECD Guideline 401 (Acute Oral Toxicity)
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, number average molecular weight ≤ 700 25068-38-6	Value type	LD50
	Value	> 2,000 mg/kg
	Species	rat
	Method	OECD Guideline 420 (Acute Oral Toxicity)
butyl glycidyl ether 2426-08-6	Value type	LD50
	Value	1,530 mg/kg
	Species	mouse
	Method	not specified

Acute dermal toxicity:

4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, number average molecular weight ≤ 700 25068-38-6	Value type	LD50
	Value	> 2,000 mg/kg
	Species	rat
	Method	OECD Guideline 402 (Acute Dermal Toxicity)
butyl glycidyl ether 2426-08-6	Value type	LD50
	Value	2,520 mg/kg
	Species	rabbit
	Method	not specified

Skin corrosion/irritation:

Aluminium oxide - non fibrous form 1344-28-1	Result	not irritating
	Exposure time	24 h
	Species	rabbit
	Method	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, number average molecular weight ≤ 700 25068-38-6	Result	irritating
	Exposure time	
	Species	
	Method	Weight of evidence

Serious eye damage/irritation:

Aluminium oxide - non fibrous form 1344-28-1	Result	not irritating
	Exposure time	
	Species	rabbit
	Method	equivalent or similar to OECD Guideline 405 (Acute Eye Irritation / Corrosion)
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, number average molecular weight ≤ 700 25068-38-6	Result	irritating
	Exposure time	
	Species	
	Method	Weight of evidence

Respiratory or skin sensitization:

Aluminium oxide - non fibrous form 1344-28-1	Result	not sensitising
	Test type	Draize Test
	Species	guinea pig
	Method	Landsteiner & Jacobs Method
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, number average molecular weight ≤ 700 25068-38-6	Result	sensitising
	Test type	Mouse local lymphnode assay (LLNA)
	Species	mouse
	Method	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)

Germ cell mutagenicity:

Aluminium oxide - non fibrous form 1344-28-1	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)
Aluminium oxide - non fibrous form 1344-28-1	Result	negative
	Type of study / Route of administration	bacterial reverse mutation assay (e.g Ames test)
	Metabolic activation / Exposure time	with and without
	Method	equivalent or similar to OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Aluminium oxide - non fibrous form 1344-28-1	Result	positive without metabolic activation
	Type of study / Route of administration	in vitro mammalian chromosome aberration test
	Metabolic activation / Exposure time	with and without
	Method	equivalent or similar to OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
Aluminium oxide - non fibrous form 1344-28-1	Result	positive without metabolic activation
	Type of study / Route of administration	in vitro mammalian cell micronucleus test
	Metabolic activation / Exposure time	with and without
	Method	equivalent or similar to OECD Guideline 487 (In vitro Mammalian Cell Micronucleus Test)
Aluminium oxide - non fibrous form 1344-28-1	Result	negative
	Type of study / Route of administration	oral: gavage
	Metabolic activation / Exposure time	
	Species	rat
	Method	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
Aluminium oxide - non fibrous form 1344-28-1	Result	negative
	Type of study / Route of administration	oral: gavage
	Metabolic activation / Exposure time	
	Species	rat
	Method	OECD Guideline 475 (Mammalian Bone Marrow Chromosome Aberration Test)
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, number average molecular weight ≤ 700 25068-38-6	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 472 (Genetic Toxicology: Escherichia coli, Reverse Mutation Assay)
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, number average molecular weight ≤ 700 25068-38-6	Result	negative
	Type of study / Route of administration	oral: gavage
	Metabolic activation / Exposure time	
	Species	mouse
	Method	not specified

Repeated dose toxicity:

Aluminium oxide - non fibrous form 1344-28-1	Result	NOAEL=>= 0.075 mg/l
	Route of application	inhalation: dust
	Exposure time / Frequency of treatment	6 months6 h/d, 5 d/week
	Species	rat
	Method	equivalent or similar to OECD Guideline 452 (Chronic Toxicity Studies)
Aluminium oxide - non fibrous form 1344-28-1	Result	NOAEL=113.36 mg/kg
	Route of application	oral: drinking water
	Exposure time / Frequency of treatment	364 dAd libitum (daily)
	Species	rat
	Method	OECD Guideline 452 (Chronic Toxicity Studies)
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, number average molecular weight ≤ 700 25068-38-6	Result	NOAEL=50 mg/kg
	Route of application	oral: gavage
	Exposure time / Frequency of treatment	14 wdaily
	Species	rat
	Method	OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)

Section 12. Ecological information

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

Ecotoxicity: H412 Harmful to aquatic life with long lasting effects.

Toxicity:

Aluminium oxide - non fibrous form 1344-28-1	Value type	LC50
	Value	Toxicity > Water solubility
	Acute Toxicity Study	Fish
	Exposure time	96 h
	Species	Salmo trutta
	Method	OECD Guideline 203 (Fish, Acute Toxicity Test)
Aluminium oxide - non fibrous form 1344-28-1	Value type	EC50
	Value	Toxicity > Water solubility
	Acute Toxicity Study	Daphnia
	Exposure time	48 h
	Species	Daphnia magna
	Method	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Aluminium oxide - non fibrous form 1344-28-1	Value type	NOEC
	Value	Toxicity > Water solubility
	Acute Toxicity Study	Algae
	Exposure time	72 h
	Species	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)
	Method	OECD Guideline 201 (Alga, Growth Inhibition Test)
	Value type	EC50
	Value	Toxicity > Water solubility
	Acute Toxicity Study	Algae
	Exposure time	72 h
	Species	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)
	Method	OECD Guideline 201 (Alga, Growth Inhibition Test)
Aluminium oxide - non fibrous form 1344-28-1	Value type	EC0
	Value	Toxicity > Water solubility
	Acute Toxicity Study	Bacteria
	Exposure time	
	Species	not specified
	Method	not specified
4,4'-Isopropylidenediphenol, oligomeric reaction products with	Value type	LC50
	Value	1.75 mg/l

1-chloro-2,3-epoxypropane, number average molecular weight ≤ 700 25068-38-6	Acute Toxicity Study	Fish
	Exposure time	96 h
	Species	Oncorhynchus mykiss
	Method	OECD Guideline 203 (Fish, Acute Toxicity Test)
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, number average molecular weight ≤ 700 25068-38-6	Value type	EC50
	Value	1.7 mg/l
	Acute Toxicity Study	Daphnia
	Exposure time	48 h
	Species	Daphnia magna
	Method	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, number average molecular weight ≤ 700 25068-38-6	Value type	EC50
	Value	> 11 mg/l
	Acute Toxicity Study	Algae
	Exposure time	72 h
	Species	Scenedesmus capricornutum
	Method	OECD Guideline 201 (Alga, Growth Inhibition Test)
	Value type	NOEC
	Value	4.2 mg/l
	Acute Toxicity Study	Algae
	Exposure time	72 h
	Species	Scenedesmus capricornutum
	Method	OECD Guideline 201 (Alga, Growth Inhibition Test)
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, number average molecular weight ≤ 700 25068-38-6	Value type	IC50
	Value	> 100 mg/l
	Acute Toxicity Study	Bacteria
	Exposure time	3 h
	Species	activated sludge, industrial
	Method	other guideline:
butyl glycidyl ether 2426-08-6	Value type	LC50
	Value	65 mg/l
	Acute Toxicity Study	Fish
	Exposure time	96 h
	Species	Salmo gairdneri (new name: Oncorhynchus mykiss)
	Method	OECD Guideline 203 (Fish, Acute Toxicity Test)
butyl glycidyl ether 2426-08-6	Value type	LC50
	Value	9.2 mg/l
	Acute Toxicity Study	Daphnia
	Exposure time	48 h
	Species	Daphnia magna
	Method	not specified
butyl glycidyl ether 2426-08-6	Value type	EC50
	Value	35 mg/l
	Acute Toxicity Study	Algae
	Exposure time	96 h
	Species	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)
	Method	OECD Guideline 201 (Alga, Growth Inhibition Test)

Persistence and degradability:

4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, number average molecular weight ≤ 700 25068-38-6	Result	not readily biodegradable.
	Route of application	aerobic
	Degradability	5 %
	Method	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)
butyl glycidyl ether 2426-08-6	Result	not readily biodegradable.
	Route of application	aerobic
	Degradability	25 %
	Method	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)

Bioaccumulative potential / Mobility in soil:

4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, number average molecular weight ≤ 700 25068-38-6	LogPow	3.242
	Temperature	25 °C
	Method	EU Method A.8 (Partition Coefficient)

butyl glycidyl ether 2426-08-6	LogPow	0.63
	Temperature	
	Method	QSAR (Quantitative Structure Activity Relationship)

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