



Safety Data Sheet

LOCTITE EA 3463 METAL MAGIC STEEL known as F/M
METAL MAGIC STEEL STICK 113

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SDS No. : 153766
V001.3

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

Product name: LOCTITE EA 3463 METAL MAGIC STEEL known as F/M METAL MAGIC STEEL STICK 113

Intended use: Epoxy resin

Supplier:
Henkel Australia Pty Ltd
135-141 Canterbury Road
Kilsyth, Victoria, 3137
Australia

Phone: +61 (3) 9724 6444

Emergency information: 24 HOUR EMERGENCY CONTACT NUMBER: 1800 032 379

Section 2. Hazards identification

Classification of the substance or mixture

Hazardous according to the criteria of Safe Work Australia.

GHS Classification:

<u>Hazard Class</u>	<u>Hazard Category</u>
Skin irritation	Category 2
Serious eye irritation	Category 2A
Skin sensitizer	Category 1
Acute hazards to the aquatic environment	Category 3
Chronic hazards to the aquatic environment	Category 3

Hazard pictogram:



Signal word:

Warning

Hazard statement(s): H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H412 Harmful to aquatic life with long lasting effects.

Precautionary Statement(s):

Prevention: P261 Avoid breathing dust or fumes.
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, eye protection, and 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.
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.

Dangerous Goods information:

Not classified as Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG Code).

Section 3. Composition / information on ingredients

General chemical description: Mixture
Type of preparation: Epoxy resin

Identity of ingredients:

Chemical ingredients	CAS-No.	Proportion
Talc	14807-96-6	30- < 60 %
Glass, oxide, chemicals	65997-17-3	30- < 60 %
bis-[4-(2,3-epoxipropoxy)phenyl]propane	1675-54-3	10- < 30 %
Poly[oxy(methyl-1,2-ethanediyl)], a-hydro-w-hydroxy-, ether with 2,2-bis(hydroxymethyl)-1,3-propanediol (4:1), 2-hydroxy-3-mercaptopropyl ether	72244-98-5	10- < 30 %

Section 4. First aid measures

Ingestion: Rinse mouth, do not induce vomiting, consult a doctor.

Skin: Immediately wash skin thoroughly with soap and water.
Seek medical advice.

Eyes: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Seek medical advice.

Inhalation: Move to fresh air, consult doctor if complaint persists.

First Aid facilities: Eye wash
Normal washroom facilities

Medical attention and special treatment: Treat symptomatically.

Section 5. Fire fighting measures

- Suitable extinguishing media:** Water spray (fog), foam, dry chemical or carbon dioxide.
- Improper extinguishing media:** High pressure waterjet
- Decomposition products in case of fire:** Thermal decomposition can lead to release of irritating gases and vapors.
Oxides of carbon.
Oxides of nitrogen.
- Special protective equipment for fire-fighters:** 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.
Collect contaminated fire fighting water separately. It must not enter drains.

Section 6. Accidental release measures

- Personal precautions:** Avoid contact with skin and eyes.
Wear protective equipment.
Use personal protective equipment as described in Section 8.
- Environmental precautions:** Do not empty into drains / surface water / ground water.
- Clean-up methods:** Absorb spill with inert material. Shovel material into appropriate container for disposal.
Dispose of contaminated material as waste according to Section 13.

Section 7. Handling and storage

- Precautions for safe handling:** See advice in section 8
Ensure that workrooms are adequately ventilated.
Avoid skin and eye contact.
Prolonged or repeated skin contact should be avoided
- Conditions for safe storage:** Store in a cool, dry, well-ventilated area.
Do not expose to direct sunlight.

Section 8. Exposure controls / personal protection

National exposure standards:

Ingredient [Regulated substance]	form of exposure	TWA (ppm)	TWA (mg/m3)	Peak Limit. (ppm)	Peak Limit. (mg/m3)	STEL (ppm)	STEL (mg/m3)
TALC, (CONTAINING NO ASBESTOS FIBRES) 14807-96-6			2.5				
Man-Made Vitreous (Silicate) Fibres (MMVF): Refractory Ceramic Fibres (RCF), Special Purpose Glass Fibres and High Biopersistence MM 65997-17-3	Inhalable dust.		2				

Man-Made Vitreous (Silicate) Fibres (MMVF): Glass wool, rock (stone) wool, slag wool and continuous glass filament and Low Biopersis 65997-17-3	Inhalable dust.		2				
Man-Made Vitreous (Silicate) Fibres (MMVF): Refractory Ceramic Fibres (RCF), Special Purpose Glass Fibres and High Biopersistence MM 65997-17-3	Respirable fibers.						

- Engineering controls:** Ventilation should effectively remove and prevent buildup of any vapor/mist/fume/dust generated from the handling of this product.
- Eye protection:** Wear chemical goggles.
- Skin protection:** Use of protective coveralls and long sleeves is recommended. Suitable protective gloves. Neoprene, Butyl-rubber, or nitrile-rubber 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.
- Respiratory protection:** If inhalation risk exists, wear a respirator or air supplied mask complying with the requirements of AS/NZS 1715 and AS/NZS 1716.

Section 9. Physical and chemical properties

- Appearance:** black
solid
- Odor:** pungent
- pH:** Not applicable, Product is non-polar/aprotic.
- Melting point / freezing point:** < 0 °C (< 32 °F)
- Specific gravity:** 2.247
- Boiling point:** > 35 °C (> 95 °F)
- Flash point:** > 93.3 °C (> 199.94 °F)
(Setaflash Closed Cup; ASTM D3828 Method B)
- Vapor density:** Not applicable, Product is a solid.
- Density:** 2.25 g/cm³
- Solubility in water:** Insoluble
- Auto ignition:** Not applicable
- Decomposition temperature:**
- VOC content (2010/75/EC)** 2 % (VOCV 814.018 VOC regulation CH)

Section 10. Stability and reactivity

- Stability:** Stable under normal conditions of temperature and pressure.
- Conditions to avoid:** Keep away from heat, ignition sources and incompatible materials. Protect from direct sunlight.

Incompatible materials:	Reaction with strong acids. Oxidizing agents.
Hazardous decomposition products:	Thermal decomposition can lead to release of irritating gases and vapors. Oxides of carbon. Oxides of nitrogen.
Hazardous polymerization:	Will not occur.

Section 11. Toxicological information

Health Effects:

Ingestion:	May cause irritation to the gastrointestinal tract, mouth and mucous membranes.
Skin:	Irritating to skin. Symptoms may include redness, edema, drying, defatting and cracking of the skin. May cause an allergic skin reaction.
Eyes:	Causes serious eye irritation. Symptoms may include severe irritation, pain, tearing, blurred vision.
Inhalation:	May cause irritation to nose and throat.

Acute toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
Talc 14807-96-6	LD50 LC50 LD50	> 5,000 mg/kg > 2.1 mg/l > 2,000 mg/kg	oral inhalation dermal	4 h	rat rat rat	OECD Guideline 423 (Acute Oral toxicity) OECD Guideline 403 (Acute Inhalation Toxicity) OECD Guideline 402 (Acute Dermal Toxicity)
Glass, oxide, chemicals 65997-17-3	LD50	> 5,000 mg/kg	oral		rat	not specified
bis-[4-(2,3-epoxipropoxy)phenyl]propane 1675-54-3	LD50 LD50	> 2,000 mg/kg > 2,000 mg/kg	oral dermal		rat rat	OECD Guideline 420 (Acute Oral Toxicity) OECD Guideline 402 (Acute Dermal Toxicity)
Poly[oxy(methyl-1,2-ethanediyl)], a-hydro-w-hydroxy-, ether with 2,2-bis(hydroxymethyl)-1,3-propanediol (4:1), 2-hydroxy-3-mercaptopropyl ether 72244-98-5	LD50 LD50	2,600 mg/kg > 10,200 mg/kg	oral dermal		rat rabbit	equivalent or similar to OECD Guideline 401 (Acute Oral Toxicity) equivalent or similar to OECD Guideline 402 (Acute Dermal Toxicity)

Skin corrosion/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Talc 14807-96-6	slightly irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
bis-[4-(2,3-epoxipropoxy)phenyl]propane 1675-54-3	moderately irritating	24 h	rabbit	Draize Test
Poly[oxy(methyl-1,2-ethanediyl)], a-hydro-w-hydroxy-, ether with 2,2-bis(hydroxymethyl)-1,3-propanediol (4:1), 2-hydroxy-3-mercaptopropyl ether 72244-98-5	not irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

Serious eye damage/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Talc 14807-96-6	not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
bis-[4-(2,3-epoxipropoxy)phenyl]propane 1675-54-3	slightly irritating		rabbit	Draize Test
Poly[oxy(methyl-1,2-ethanediyl)], a-hydro-w-hydroxy-, ether with 2,2-bis(hydroxymethyl)-1,3-propanediol (4:1), 2-hydroxy-3-mercaptopropyl ether 72244-98-5	not irritating		rabbit	equivalent or similar to OECD Guideline 405 (Acute Eye Irritation / Corrosion)

Respiratory or skin sensitization:

Hazardous components CAS-No.	Result	Test type	Species	Method
Talc 14807-96-6	not sensitising	Guinea pig maximisation test	guinea pig	OECD Guideline 406 (Skin Sensitisation)
bis-[4-(2,3-epoxipropoxy)phenyl]propane 1675-54-3	sensitising	Mouse local lymph node assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
Poly[oxy(methyl-1,2-ethanediyl)], a-hydro-w-hydroxy-, ether with 2,2-bis(hydroxymethyl)-1,3-propanediol (4:1), 2-hydroxy-3-mercaptopropyl ether 72244-98-5	Sub-Category 1B (sensitising)	Mouse local lymph node assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)

Germ cell mutagenicity:

Hazardous components CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
Talc 14807-96-6	negative negative	bacterial reverse mutation assay (e.g Ames test) in vitro mammalian cell transformation assay	with and without without		equivalent or similar to OECD Guideline 471 (Bacterial Reverse Mutation Assay) equivalent or similar to OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
Talc 14807-96-6	negative	oral: gavage		rat	equivalent or similar to OECD Guideline 478 (Genetic Toxicology: Rodent Dominant Lethal Test)
bis-[4-(2,3-epoxipropoxy)phenyl]propane 1675-54-3	negative negative with metabolic activation	bacterial reverse mutation assay (e.g Ames test) mammalian cell gene mutation assay	with and without with and without		EU Method B.13/14 (Mutagenicity) not specified
bis-[4-(2,3-epoxipropoxy)phenyl]propane 1675-54-3	negative negative negative negative	oral: gavage oral: gavage oral: gavage oral: gavage		mouse rat mouse mouse	not specified OECD Guideline 488 (In Vivo Transgenic Cell Gene Mutation Assays) not specified not specified

Repeated dose toxicity:

Hazardous components CAS-No.	Result	Route of application	Exposure time / Frequency of treatment	Species	Method
Talc 14807-96-6	NOAEL=100 mg/kg	oral: feed	101 d7 d/w	rat	equivalent or similar to OECD Guideline 452 (Chronic Toxicity Studies)
bis-[4-(2,3- epoxipropoxi)phenyl]prop ane 1675-54-3	NOAEL=50 mg/kg	oral: gavage	14 wdaily	rat	OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
bis-[4-(2,3- epoxipropoxi)phenyl]prop ane 1675-54-3	NOAEL=100 mg/kg	dermal	13 w3 times/w	mouse	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.

Ecotoxicity: Harmful to aquatic life with long lasting effects.

Toxicity:

Hazardous components CAS-No.	Value type	Value	Acute Toxicity Study	Exposure time	Species	Method
Talc 14807-96-6	LC50	Toxicity > Water solubility	Fish	96 h	Brachydanio rerio (new name: Danio rerio)	OECD Guideline 203 (Fish, Acute Toxicity Test)
Glass, oxide, chemicals 65997-17-3	LC50	> 1,000 mg/l	Fish	96 h	not specified	OECD Guideline 203 (Fish, Acute Toxicity Test)
Glass, oxide, chemicals 65997-17-3	EC50	> 1,000 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Glass, oxide, chemicals 65997-17-3	EC50	> 1,000 mg/l	Algae	72 h	not specified	OECD Guideline 201 (Alga, Growth Inhibition Test)
Glass, oxide, chemicals 65997-17-3	EC0	> 1,000 mg/l	Bacteria		not specified	not specified
bis-[4-(2,3- epoxipropoxy)phenyl]propane 1675-54-3	LC50	1.2 mg/l	Fish	96 h	Oncorhynchus mykiss	EPA-660 (Methods for Acute Toxicity Tests with Fish, Macroinvertebrates and Amphibians)
bis-[4-(2,3- epoxipropoxy)phenyl]propane 1675-54-3	EC50	2.7 mg/l	Daphnia	48 h	Daphnia magna	other guideline:
bis-[4-(2,3- epoxipropoxy)phenyl]propane 1675-54-3	EC50	> 11 mg/l	Algae	72 h	Scenedesmus capricornutum	other guideline:
bis-[4-(2,3- epoxipropoxy)phenyl]propane 1675-54-3	NOEC	4.2 mg/l	Algae	72 h	Scenedesmus capricornutum	other guideline:
bis-[4-(2,3- epoxipropoxy)phenyl]propane 1675-54-3	IC50	> 100 mg/l	Bacteria	3 h	activated sludge, industrial	other guideline:
Poly[oxy(methyl-1,2- ethanediyl)], a-hydro-w- hydroxy-, ether with 2,2- bis(hydroxymethyl)-1,3- propanediol (4:1), 2-hydroxy- 3-mercaptopropyl ether 72244-98-5	LC50	87 mg/l	Fish	96 h	Danio rerio	OECD Guideline 203 (Fish, Acute Toxicity Test)
Poly[oxy(methyl-1,2- ethanediyl)], a-hydro-w- hydroxy-, ether with 2,2- bis(hydroxymethyl)-1,3- propanediol (4:1), 2-hydroxy- 3-mercaptopropyl ether 72244-98-5	EC50	12 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Poly[oxy(methyl-1,2- ethanediyl)], a-hydro-w- hydroxy-, ether with 2,2- bis(hydroxymethyl)-1,3- propanediol (4:1), 2-hydroxy- 3-mercaptopropyl ether 72244-98-5	EC50	> 733 mg/l	Algae	72 h	Desmodesmus subspicatus	OECD Guideline 201 (Alga, Growth Inhibition Test)
Poly[oxy(methyl-1,2- ethanediyl)], a-hydro-w- hydroxy-, ether with 2,2- bis(hydroxymethyl)-1,3- propanediol (4:1), 2-hydroxy- 3-mercaptopropyl ether 72244-98-5	NOEC	338 mg/l	Algae	72 h	Desmodesmus subspicatus	OECD Guideline 201 (Alga, Growth Inhibition Test)
Poly[oxy(methyl-1,2- ethanediyl)], a-hydro-w- hydroxy-, ether with 2,2-	EC50	> 1,000 mg/l	Bacteria	3 h	activated sludge of a predominantly domestic sewage	OECD Guideline 209 (Activated Sludge, Respiration)

bis(hydroxymethyl)-1,3-propanediol (4:1), 2-hydroxy-3-mercaptoethyl ether 72244-98-5						Inhibition Test)
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Persistence and degradability:

Hazardous components CAS-No.	Result	Route of application	Degradability	Method
bis-[4-(2,3-epoxypropoxy)phenyl]propane 1675-54-3	not inherently biodegradable	not specified	12 %	OECD Guideline 302 B (Inherent biodegradability: Zahn-Wellens/EMPA Test)
bis-[4-(2,3-epoxypropoxy)phenyl]propane 1675-54-3	not readily biodegradable.	aerobic	5 %	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)
Poly[oxy(methyl-1,2-ethanediyl)], a-hydro-w-hydroxy-, ether with 2,2-bis(hydroxymethyl)-1,3-propanediol (4:1), 2-hydroxy-3-mercaptoethyl ether 72244-98-5	not readily biodegradable.	aerobic	5 %	OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)

Bioaccumulative potential / Mobility in soil:

Hazardous components CAS-No.	LogPow	Bioconcentration factor (BCF)	Exposure time	Species	Temperature	Method
Talc 14807-96-6	-9.4				25 °C	QSAR (Quantitative Structure Activity Relationship)
bis-[4-(2,3-epoxypropoxy)phenyl]propane 1675-54-3	> 2.64 - 3.78				25 °C	OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method)

Section 13. Disposal considerations

Waste disposal of product: Collection and delivery to recycling enterprise or other registered elimination institution.

Disposal for uncleaned package: Packaging that cannot be cleaned are to be disposed of in the same manner as the product.

Section 14. Transport information

Road and Rail Transport:

Dangerous Goods information: Not classified as Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG Code).

Marine transport IMDG:

Not dangerous goods

Air transport IATA:

Not dangerous goods

Section 15. Regulatory information

AIIC: All components are listed or are exempt from listing on the Australian Inventory of Industrial Chemicals or Introduced under AICIS.

Section 16. Other information

Abbreviations/acronyms: ADGC - Australian Dangerous Goods Code
IMDG: International Maritime Dangerous Goods code
IATA-DGR: International Air Transport Association – Dangerous Goods Regulations
AIIC - Australian Inventory of Industrial Chemicals (AIIC)
AICIS - Australian Industrial Chemicals Introduction Scheme

Reason for issue: Reviewed SDS. Reissued with new date. involved chapters: 1-16

Date of previous issue: 12.01.2021

Disclaimer:

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