



The Chemical Company

MATERIAL SAFETY DATA SHEET

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product name: **MBRACE® PUTTY PART B**

Company: BASF South East Asia Pte Ltd

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Singapore 639090

Telephone number: +65 6861 6766

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Emergency telephone numbers: +65 6861 6766

2. HAZARDS IDENTIFICATION

Safety hazards: Corrosive.

Health hazards: Vapour is severe eye irritant. Liquid can cause severe or permanent eye damage. Skin irritant, may cause sensitization in some individuals. Ingestion can cause irritation, nausea vomiting and diarrhea. Inhalation can cause severe irritation.

Environmental hazards: See section 12.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical

characterization: Modified polyamidoamines

Hazardous Ingredients: Tetraethylenepentamine 2,4,6 tris(dimethylaminomethyl)phenol

CAS No: 112-57-2 90-72-2

Hazard symbols: C Xn

R-phrases: 21/22-34-43-52/53 22-36/38

% Concentration: <25% >5%

4. FIRST AID MEASURES

Immediate treatment

Eye contact: While eyes are held open gently flush with water for 30 minutes. Seek immediate medical attention.

Skin contact: Remove all contaminated clothing and shoes. Wash skin thoroughly with soap and water. Avoid solvents. Seek medical advice if irritation persists.

Inhalation: Remove to fresh air. Supply oxygen and / or artificial respiration as needed. Seek medical assistance as needed particularly in case of allergic response.

Ingestion: Do not induce vomiting. Contact doctor immediately. Rinse mouth and give water.

Information for physicians: Treat symptomatically. Contact Poisons Information Center as needed. Allergic response as dermatitis or asthma-like symptoms / wheezing may occur after a single significant exposure and sensitisation may occur after single or multiple minor exposures, depending on the individual.

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5. FIRE FIGHTING MEASURES

Special hazards:	In case of fire oxides of carbon, nitrogen and other toxic gases are formed.
Protective equipment:	Fire fighters should wear self-contained breathing apparatus in enclosed areas.
Extinguishing agents:	Water spray, foam, carbon dioxide, dry powder. High volume water jet not suitable.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions:	Wear appropriate personal protection and ensure adequate ventilation.
Environmental precautions:	Prevent discharge into drains, sewers and waterways.
Method for cleaning up:	Absorb in inert dry material. Do not sweep up or wash down with water.

7. HANDLING AND STORAGE

Handling:	Keep containers tightly closed when not in use.
Requirements for storage rooms:	Keep dry and preferably keep cool.
Materials not to be stored together:	Keep separate from oxidising materials.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Technical measures:	Use mechanical mixing equipment and provide long handled brush for washing tools. Use only in well ventilated areas.
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Personal protection

Respiratory protection:	Use respiratory equipment in accordance to local safety requirements.
Eye protection:	Wear safety glasses, which comply with local standards.
Hand protection:	Wear gloves or suitable protective creams.
Body protection:	Wear overalls or other suitable protective clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Liquid
Colour:	Amber
Odour:	Characteristic of amines
Freezing temperature:	n.d.
Boiling point:	>100°C
Melting point:	n.a.
Flash point:	n.d.
Vapour pressure:	n.d.
Vapour density:	n.d.
Relative Gravity:	Approx. 0.95 @ 25°C

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pH value: n.d.
Viscosity: Approx. 800cps @ 25°C

10. STABILITY AND REACTIVITY

Stability: Stable under normal storage and usage temperatures.
Hazardous reactions (conditions to avoid): Avoid heat, and sources of ignition.
Materials to avoid: Avoid oxidising materials.
Hazardous decomposition products: None under normal storage and use temperatures.

11. TOXICOLOGICAL INFORMATION

Acute toxicity (lethal dose)

LD50 oral Albino rat

Dose: n.d.
Additional information: n.d.
Information applies to: MBrace Putty Part B

LC50 inhalation Albino rat

Dose: n.d.
Additional information: n.a.
Information applies to: MBrace Putty Part B

Acute toxicity (irritation, sensitization etc.)

Eye irritation Albino rabbit

Result: n.d.
Symptoms: n.d.
Method: n.a.

Skin irritation Albino rabbit

Results: n.d.
Symptoms: n.d.
Method: n.a.

Delayed or chronic toxicological effects

Additional information: n.a.

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12. ECOLOGICAL INFORMATION

Ecotoxicity

LC50 dose: n.d.

Additional information

Ecotoxicity: Do not allow to be absorbed into soil. Prevent discharge into drains and waterways.

Biochemical oxygen demand

COD: n.d.

BOD: n.d.

Other: n.a.

13. DISPOSAL CONSIDERATIONS

Dispose in accordance with all local and governmental regulations.
Set resin and hardener can be disposed to landfill.

14. TRANSPORT INFORMATION

Road transport ADR / RID

Class: 8- Corrosives

Number/letter: n.as.

Warning sign: n.as.

Hazard No: n.as.

UN No: 1760- Corrosive liquid, n.o.s.

Maritime / Air transport IMDG

UN No: 1760- Corrosive liquid, n.o.s.

PG: III

Class: 8

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15. REGULATORY INFORMATION

Classification:	Labelling Required.
Hazard labels:	C- Corrosive.
R-phrases:	(R34)- Causes burns. (R20/21/22)- Harmful by inhalation, in contact with skin and if swallowed.
S-phrases:	(S24/25)- Avoid contact with skin and eyes. (S26)- In case with contact with eyes, rinse immediately with plenty of water and seek medical advice. (S36/37/39)- Wear suitable protective clothing, clothes and eye/face protection. (S45)- In case of accident or if you feel unwell, seek medical advice immediately, (show label where possible).

National regulatory information:

n.as.

Other regulations, restrictions and prohibitions:

n.a.

16. OTHER INFORMATION

MBrace Putty Part B is part of a two-component epoxy resin system. Fully cured epoxy resin compositions, comprising mixed Part A and Part B, are considered non-toxic, non-irritant and non-sensitizing to the skin. Contact with the individual components during mixing and application should be minimised.

Reason for Issue: Review and update.

This MSDS summarises our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this MSDS and consider the information in the context of how the product will be handled and used in the workplace including in conjunction with other products. If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company. Our responsibility for products sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available on request. All information contained in this MSDS is as accurate and up-to-date as possible. No warranty expressed or implied is made as to its accuracy, reliability or completeness.