

**according to Regulation (EC) No 1907/2006, Article 31**

Printing date 18.04.2024

Version number 6 (replaces version 5)

Revision: 18.04.2024

**1 Identification of the substance/mixture and of the company/undertaking****1.1 Product identifier****Trade name:** 8329TFF-Part B**Other Means of Identification:** Thermally Conductive Epoxy Adhesive**Related Part Number:** 8329TFF-B-Liquid, 8329TFF-B-25ML, 8329TFF-B-50ML**UFI:** 58F0-W072-3007-6T64**1.2 Relevant identified uses of the substance or mixture and uses advised against**

No further relevant information available.

**Application of the substance / the mixture** Thermally conductive adhesive hardener.**1.3 Details of the supplier of the safety data sheet** M.G. Chemicals Ltd.**Manufacturer/Supplier:**

MG Chemicals Ltd. (Head Office)  
1210 Corporate Drive  
Burlington, Ontario L7L 5R6  
CANADA  
+(1) 800-340-0772

MG Chemicals  
Heame House, 23 Bliston Street  
Sedgely Dudley DY3 1JA.  
UNITED KINGDOM  
+(44) 1663 362888 sales@mgchemicals.com

MG Chemicalst Ltd.  
Level 2, Vision Exchange, Building Territorials Street,  
Zone 1, Central Business, District,  
Birkirkara CBD 1070,  
MALTA

**Further information obtainable from:** sds@mgchemicals.com**1.4 Emergency telephone number:**

Members of the public seeking specific information on poisons should contact:

In England and Wales: NHS 111 - dial 111

In Scotland: NHS 24 - dial 111

Verisk 3E (Access code: 335388), +(44) 20 3514787

Other emergency telephone numbers: +(0) 800 680 0425

For hazardous material incidents ONLY (leaks, spills, fires, exposures or accidents)

USA or CANADA-Call Verisk 3E at +1-866-519-4752 or +1-760-476-3962 (Service access code: 335388)

For emergencies involving the transport of dangerous goods; 24/7 service

CANADA-Call CANUTEC collect at +1-613-996-6666 or \*666 on cellular phones

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**2 Hazards identification**

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS05 corrosion

Skin Corr. 1A      H314 Causes severe skin burns and eye damage.



GHS07

Skin Sens. 1      H317 May cause an allergic skin reaction.

Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

- **2.2 Label elements**

- **Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labelled according to the GB CLP regulation.

- **Hazard pictograms**



GHS05    GHS07

- **Signal word** Danger

- **Hazard-determining components of labelling:**

pentaerythritol-PO-mercaptoglycerol~

- **Hazard statements**

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H412 Harmful to aquatic life with long lasting effects.

- **Precautionary statements**

P102      Keep out of reach of children.

P280      Wear protective gloves/protective clothing/eye protection/face protection.

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing.

Rinse skin with water [or shower].

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.

P405      Store locked up.

P501      Dispose of contents/container in accordance with local/regional/national/international regulations.

- **2.3 Other hazards**

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

- **Determination of endocrine-disrupting properties**

Endocrine Disruptor substance  $\geq 0.1\%$  = none

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### 3 Composition/information on ingredients

#### 3.2 Mixtures

**Description:** Mixture of substances listed below with nonhazardous additions.

#### Dangerous components:

CAS: 72244-98-5 pentaerythritol-PO-mercaptoglycerol~ 42.0%

⚠ Skin Sens. 1, H317; Aquatic Chronic 3, H412

CAS: 90-72-2 2,4,6-tris(dimethylaminomethyl)phenol 8.0%

EINECS: 202-013-9 ⚠ Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2, H319

#### Non-hazardous components and components below classification threshold

CAS: 21645-51-2 aluminium hydroxide 50.0%

EINECS: 244-492-7

**Additional information:** For the wording of the listed hazard phrases refer to section 16.

### 4 First aid measures

#### 4.1 Description of first aid measures

**General information:** Immediately remove any clothing soiled by the product.

#### After inhalation:

Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

**After skin contact:** Immediately wash with water and soap and rinse thoroughly.

#### After eye contact:

Rinse opened eye for several minutes under running water. Then consult a doctor.

**After swallowing:** Drink plenty of water and provide fresh air. Call for a doctor immediately.

#### 4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

#### 4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

### 5 Firefighting measures

#### 5.1 Extinguishing media

#### Suitable extinguishing agents:

Use fire extinguishing methods suitable to surrounding conditions.

#### 5.2 Special hazards arising from the substance or mixture

Vapors are heavier than air. Vapors may travel to sources of ignition near the ground. They can cause flash fire or ignite explosively.

#### 5.3 Advice for firefighters

**Protective equipment:** No special measures required.

### 6 Accidental release measures

#### 6.1 Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

#### 6.2 Environmental precautions:

Inform respective authorities in case of seepage into water course or sewage system.

Dilute with plenty of water.

Do not allow to enter sewers/ surface or ground water.

#### 6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

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*Use neutralising agent.**Dispose contaminated material as waste according to section 13.**Ensure adequate ventilation.***· 6.4 Reference to other sections***See Section 7 for information on safe handling.**See Section 8 for information on personal protection equipment.**See Section 13 for disposal information.***7 Handling and storage****· 7.1 Precautions for safe handling** *No special precautions are necessary if used correctly.***· Information about fire - and explosion protection:** *No special measures required.***· 7.2 Conditions for safe storage, including any incompatibilities****· Storage:****· Requirements to be met by storerooms and receptacles:** *No special requirements.***· Information about storage in one common storage facility:** *Not required.***· Further information about storage conditions:** *Keep container tightly sealed.***· 7.3 Specific end use(s)** *No further relevant information available.***8 Exposure controls/personal protection****· 8.1 Control parameters****· Ingredients with limit values that require monitoring at the workplace:***The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.***· Additional information:** *The lists valid during the making were used as basis.***· 8.2 Exposure controls****· Appropriate engineering controls** *No further data; see section 7.***· Individual protection measures, such as personal protective equipment****· General protective and hygienic measures:***Keep away from foodstuffs, beverages and feed.**Immediately remove all soiled and contaminated clothing**Wash hands before breaks and at the end of work.**Avoid contact with the eyes and skin.***· Respiratory protection:** *Not required.***· Hand protection***Protective gloves**The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.**Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.**Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation***· Material of gloves***The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.*

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· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye/face protection**

Tightly sealed goggles

## 9 Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**· **General Information**· **Physical state**

Fluid

· **Colour:**

According to product specification

· **Odour:**

Characteristic

· **Odour threshold:**

Not determined.

· **Melting point/freezing point:**

Undetermined.

· **Boiling point or initial boiling point and boiling range**

118 °C

· **Flammability**

Not applicable.

· **Lower and upper explosion limit**· **Lower:**

Not determined.

· **Upper:**

Not determined.

· **Flash point:**

124 °C

· **Auto-ignition temperature:**

365 °C

· **Decomposition temperature:**

Not determined.

· **pH**

Not determined.

· **Viscosity:**· **Kinematic viscosity at 20 °C**20.5 mm<sup>2</sup>/s· **Dynamic:**

Not determined.

· **Solubility**· **water:**

Fully miscible.

· **Partition coefficient n-octanol/water (log value)**

Not determined.

· **Vapour pressure:**

Not determined.

· **Density and/or relative density**· **Density at 20 °C:**1.5 g/cm<sup>3</sup>· **Relative density**

Not determined.

· **Bulk density:**600 kg/m<sup>3</sup>· **Vapour density**

Not determined.

· **9.2 Other information**· **Appearance:**· **Form:**

Fluid

· **Important information on protection of health and environment, and on safety.**· **Ignition temperature:**

Product is not selfigniting.

· **Explosive properties:**

Product does not present an explosion hazard.

· **Solvent content:**· **VOC (EC)**

0.00 %

· **Solids content:**

100.0 %

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- **Change in condition**
- **Evaporation rate** Not determined.
- **Information with regard to physical hazard classes**
- **Explosives** Void
- **Flammable gases** Void
- **Aerosols** Void
- **Oxidising gases** Void
- **Gases under pressure** Void
- **Flammable liquids** Void
- **Flammable solids** Void
- **Self-reactive substances and mixtures** Void
- **Pyrophoric liquids** Void
- **Pyrophoric solids** Void
- **Self-heating substances and mixtures** Void
- **Substances and mixtures, which emit flammable gases in contact with water** Void
- **Oxidising liquids** Void
- **Oxidising solids** Void
- **Organic peroxides** Void
- **Corrosive to metals** Void
- **Desensitised explosives** Void

## 10 Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

## 11 Toxicological information

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
- **Acute toxicity** Based on available data, the classification criteria are not met.
- **LD/LC50 values relevant for classification:**
- **ATE (Acute Toxicity Estimates)**  
Oral LD50 6,250 mg/kg
- **Skin corrosion/irritation** Causes severe skin burns and eye damage.
- **Serious eye damage/irritation**  
Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation** May cause an allergic skin reaction.
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

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· **11.2 Information on other hazards**

· **Endocrine disrupting properties**

None of the ingredients is listed.

**12 Ecological information**

· **12.1 Toxicity**

· **Aquatic toxicity:** No further relevant information available.

· **12.2 Persistence and degradability** No further relevant information available.

· **12.3 Bioaccumulative potential** No further relevant information available.

· **12.4 Mobility in soil** No further relevant information available.

· **12.5 Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

· **12.6 Endocrine disrupting properties**

The product does not contain substances with endocrine disrupting properties.

· **12.7 Other adverse effects**

· **Remark:** Harmful to fish

· **Additional ecological information:**

· **General notes:**

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Must not reach sewage water or drainage ditch undiluted or unneutralised.

Harmful to aquatic organisms

**13 Disposal considerations**

· **13.1 Waste treatment methods**

· **Recommendation**

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

· **European waste catalogue**

HP8 Corrosive

HP13 Sensitising

HP14 Ecotoxic

· **Uncleaned packaging:**

· **Recommendation:** Disposal must be made according to official regulations.

· **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

**14 Transport information**

· **14.1 UN number or ID number**

· **ADR, IMDG, IATA**

UN2735

· **14.2 UN proper shipping name**

· **ADR**

2735 AMINES, LIQUID, CORROSIVE, N.O.S.  
(2,4,6-tris(dimethylaminomethyl)phenol)

· **IMDG**

AMINES, LIQUID, CORROSIVE, N.O.S. (2,4,6-tris(dimethylaminomethyl)phenol)

· **IATA**

Amines, liquid, corrosive, n.o.s. (2,4,6-tris(dimethylaminomethyl)phenol)

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**· 14.3 Transport hazard class(es)****· ADR, IMDG, IATA****· Class**

8 Corrosive substances.

**· Label**

8

**· 14.4 Packing group****· ADR, IMDG, IATA**

II

**· 14.5 Environmental hazards:**

Not applicable.

**· 14.6 Special precautions for user**

Warning: Corrosive substances.

**· Hazard identification number (Kemler code):**

80

**· EMS Number:**

F-A, S-B

**· Segregation groups**

(SGG18) Alkalis

**· Stowage Category**

A

**· Segregation Code**

SG35 Stow "separated from" SGG1-acids

**· 14.7 Maritime transport in bulk according to IMO instruments**

Not applicable.

**· Transport/Additional information:****· ADR****· Limited quantities (LQ)**

1L

**· Excepted quantities (EQ)**

Code: E2

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 500 ml

**· Transport category**

2

**· Tunnel restriction code**

E

**· IMDG****· Limited quantities (LQ)**

1L

**· Excepted quantities (EQ)**

Code: E2

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 500 ml

**· UN "Model Regulation":**

UN 2735 AMINES, LIQUID, CORROSIVE, N . O . S . ( 2 , 4 , 6 - TRIS(DIMETHYLAMINOMETHYL)PHENOL), 8, II

**15 Regulatory information****· 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****· Poisons Act****· Regulated explosives precursors**

None of the ingredients is listed.

**· Regulated poisons**

None of the ingredients is listed.

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· **Reportable explosives precursors**

None of the ingredients is listed.

· **Reportable poisons**

None of the ingredients is listed.

· **Directive 2012/18/EU**

· **Named dangerous substances - ANNEX I** None of the ingredients is listed.

· **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3

· **DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**

None of the ingredients is listed.

· **REGULATION (EU) 2019/1148**

· **Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))**

None of the ingredients is listed.

· **Annex II - REPORTABLE EXPLOSIVES PRECURSORS**

None of the ingredients is listed.

· **Regulation (EC) No 273/2004 on drug precursors**

None of the ingredients is listed.

· **Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors**

None of the ingredients is listed.

· **15.2 Chemical safety assessment:**

A Chemical Safety Assessment has not been carried out.

## 16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Relevant phrases**

H302 Harmful if swallowed.

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.

· **Department issuing SDS:** Product safety department.

· **Contact:** sds@mgchemicals.com

· **Date of previous version:** 06.11.2023

· **Version number of previous version:** 5

· **Abbreviations and acronyms:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

ATE: Acute toxicity estimate values

Acute Tox. 4: Acute toxicity – Category 4

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*Skin Corr. 1A: Skin corrosion/irritation – Category 1A**Skin Irrit. 2: Skin corrosion/irritation – Category 2**Eye Irrit. 2: Serious eye damage/eye irritation – Category 2**Skin Sens. 1: Skin sensitisation – Category 1**Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3***. \* Data compared to the previous version altered.**

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