

according to WHS Regulations

Printing date 17.01.2024

Revision: 17.01.2024

1 Identification

- **Product identifier**
- **Trade name:** 8329HTC-A
- **Other Means of Identification:** Thermally Conductive Structural Epoxy Adhesive (Part A)
- **Related Part Number:** 8329HTC-A, 8329HTC-A-50ML, 8329HTC-A-400ML
- **Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **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

Mektronics
Unit 3 8 Bonz Place, Seven Hills NSW 2147 Australia
1300 788 701
1300 722 004
www.mektronics.com.au
sales@mektronics.com.au

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

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

2 Hazard(s) Identification

- **Classification of the substance or mixture**



Skin Irrit. 2

H315 Causes skin irritation.

Serious eye damage/irritation – Category 2A H319 Causes serious eye irritation.

Skin Sens. 1

H317 May cause an allergic skin reaction.

- **Label elements**
- **GHS label elements**

The product is classified and labelled according to the Globally Harmonised System (GHS).

(Contd. on page 2)

AU

according to WHS Regulations

Printing date 17.01.2024

Revision: 17.01.2024

Trade name: 8329HTC-A

(Contd. of page 1)

· **Hazard pictograms**

GHS07

· **Signal word** Warning· **Hazard-determining components of labelling:**

reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700) (25–45 %)

· **Hazard statements**

Causes skin irritation.

Causes serious eye irritation.

May cause an allergic skin reaction.

· **Precautionary statements**

Keep out of reach of children.

Avoid breathing fumes and vapors.

Avoid release to the environment.

Wear protective gloves and eye protection.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If skin irritation or rash occurs: Get medical advice/attention.

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

· **Other hazards**· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

3 Composition and Information on Ingredients

· **Chemical characterisation: Mixtures**

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

· **Dangerous components:**

24304-00-5 aluminium nitride	30-50%
------------------------------	--------

⚠ STOT SE 3, H335

7429-90-5 aluminium powder (stabilised)	25-45%
---	--------

⚠ Flam. Sol. 1, H228; Water-react. 2, H261

25068-38-6 reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700)	25-45%
---	--------

⚠ Skin Irrit. 2, H315; Serious eye damage/irritation – Category 2A, H319; Skin Sens. 1, H317

112945-52-5 amorphous fumed silica	1-5%
------------------------------------	------

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

4 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.

(Contd. on page 3)

according to WHS Regulations

Printing date 17.01.2024

Revision: 17.01.2024

Trade name: 8329HTC-A

(Contd. of page 2)

- 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. If symptoms persist, consult a doctor.
- **After swallowing:** *If symptoms persist consult doctor.*
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed**
No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire Fighting Measures

- **Suitable extinguishing agents:**
Use fire extinguishing methods suitable to surrounding conditions.
- **For safety reasons unsuitable extinguishing agents:** *Water*
- **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.
- **Protective equipment:** *No special measures required.*

6 Accidental Release Measures

- **Personal precautions, protective equipment and emergency procedures** *Not required.*
- **Environmental precautions:**
*Do not allow product to reach sewage system or any water course.
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/ surface or ground water.*
- **Methods and material for containment and cleaning up:**
*Dispose contaminated material as waste according to section 13.
Ensure adequate ventilation.
Do not flush with water or aqueous cleansing agents*
- **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

- **Handling:**
- **Precautions for safe handling** *Ensure good ventilation/exhaustion at the workplace.*
- **Information about fire - and explosion protection:** *No special measures required.*
- **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.
Store in cool, dry conditions in well sealed receptacles.*
- **Specific end use(s)** *No further relevant information available.*

AU

(Contd. on page 4)

according to WHS Regulations

Printing date 17.01.2024

Revision: 17.01.2024

Trade name: 8329HTC-A

(Contd. of page 3)

8 Exposure controls and personal protection

- **Additional information about design of technical facilities:**

No further data; see section 7.

- **Ingredients with limit values that require monitoring at the workplace:**

24304-00-5 aluminium nitride

WES Long-term value: 2 mg/m³
as Al

7429-90-5 aluminium powder (stabilised)

WES Long-term value: 10* 5** mg/m³
*metal dust; **welding, pyro powders

- **Additional information:** The lists valid during the making were used as basis.

- **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:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

- **Protection of hands:**



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.

- **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 protection:**



Tightly sealed goggles

9 Physical and Chemical Properties

- **General Information**

- **Appearance:**

- **Form:**

Solid

- **Colour:**

According to product specification

(Contd. on page 5)

according to WHS Regulations

Printing date 17.01.2024

Revision: 17.01.2024

Trade name: 8329HTC-A

(Contd. of page 4)

· Odour:	Characteristic
· Odour threshold:	Not determined.
· pH-value:	Not applicable.
· Change in condition	
· Melting point/freezing point:	Undetermined.
· Initial boiling point and boiling range:	Undetermined.
· Flash point:	200 °C
· Flammability (solid, gas):	Contact with water liberates extremely flammable gases.
· Auto-ignition temperature:	400 °C
· Decomposition temperature:	Not determined.
· Ignition temperature:	Product is not selfigniting.
· Explosive properties:	Product does not present an explosion hazard.
· Explosion limits:	
· Lower:	Not determined.
· Upper:	Not determined.
· Vapour pressure:	Not applicable.
· Density at 20 °C:	1.8 g/cm ³
· Relative density	Not determined.
· Vapour density	Not applicable.
· Evaporation rate	Not applicable.
· Solubility in / Miscibility with	
· water:	Soluble.
· Partition coefficient: n-octanol/water:	Not determined.
· Viscosity:	
· Dynamic:	Not applicable.
· Kinematic:	Not applicable.
· Solvent content:	
· Solids content:	100.0 %
· Other information	No further relevant information available.

10 Stability and Reactivity

- **Reactivity** No further relevant information available.
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
- **Possibility of hazardous reactions** Contact with water releases flammable gases.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological Information

- **Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.
- **Skin corrosion/irritation** Causes skin irritation.
- **Serious eye damage/irritation** Causes serious eye irritation.
- **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.

(Contd. on page 6)

according to WHS Regulations

Printing date 17.01.2024

Revision: 17.01.2024

Trade name: 8329HTC-A

(Contd. of page 5)

- **Aspiration hazard** Based on available data, the classification criteria are not met.

12 Ecological Information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behaviour in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water
Do not allow product to reach ground water, water course or sewage system.
Danger to drinking water if even small quantities leak into the ground.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation**
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

14 Transport information

- **UN-Number**
- **ADG, IMDG, IATA** UN3077
- **UN proper shipping name**
- **ADG** NOT REGULATED by Ground ADR Special Provision 375 for sizes 5kg or less.
3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (aluminium nitride)
- **IMDG** NOT REGULATED by Sea IMDG per 2.10.2.7 for sizes 5kg or less.
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (aluminium nitride), MARINE POLLUTANT
- **IATA** NOT REGULATED by Air IATA Special Provision A197 for sizes 5kg or less.
Environmentally hazardous substance, solid, n.o.s. (aluminium nitride)

(Contd. on page 7)

AU

according to WHS Regulations

Printing date 17.01.2024

Revision: 17.01.2024

Trade name: 8329HTC-A

(Contd. of page 6)

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

9 Miscellaneous dangerous substances and articles.

· **Label**

9

· **Packing group**· **ADG, IMDG, IATA**

III

· **Environmental hazards:**· **Marine pollutant:**

Symbol (fish and tree)

· **Special marking (ADG):**

Symbol (fish and tree)

· **Special marking (IATA):**

Symbol (fish and tree)

· **Special precautions for user**

Warning: Miscellaneous dangerous substances and articles.

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

90

· **EMS Number:**

F-A,S-F

· **Stowage Category**

A

· **Stowage Code**

SW23 When transported in BK3 bulk container, see 7.6.2.12 and 7.7.3.9.

· **Transport in bulk according to Annex II of Marpol and the IBC Code**

Not applicable.

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

5 kg

· **Excepted quantities (EQ)**

Code: E1

Maximum net quantity per inner packaging: 30 g

Maximum net quantity per outer packaging: 1000 g

· **Transport category**

3

· **Tunnel restriction code**

(-)

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

5 kg

· **Excepted quantities (EQ)**

Code: E1

Maximum net quantity per inner packaging: 30 g

Maximum net quantity per outer packaging: 1000 g

· **UN "Model Regulation":**

UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (ALUMINIUM NITRIDE), 9, III

AU

(Contd. on page 8)

according to WHS Regulations

Printing date 17.01.2024

Revision: 17.01.2024

Trade name: 8329HTC-A

(Contd. of page 7)

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Australian Inventory of Industrial Chemicals**
 - 24304-00-5 aluminium nitride
 - 25068-38-6 reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight \leq 700)
 - 112945-52-5 amorphous fumed silica
- **Standard for the Uniform Scheduling of Medicines and Poisons**
 - None of the ingredients is listed.
- **Australia: Priority Existing Chemicals**
 - None of the ingredients is listed.
- **GHS label elements**
 - The product is classified and labelled according to the Globally Harmonised System (GHS).
- **Hazard pictograms**



GHS07

- **Signal word** Warning
- **Hazard-determining components of labelling:**
 - reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight \leq 700) (25–45 %)
- **Hazard statements**
 - Causes skin irritation.
 - Causes serious eye irritation.
 - May cause an allergic skin reaction.
- **Precautionary statements**
 - Keep out of reach of children.
 - Avoid breathing fumes and vapors.
 - Avoid release to the environment.
 - Wear protective gloves and eye protection.
 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 - If skin irritation or rash occurs: Get medical advice/attention.
 - Dispose of contents/container in accordance with local/regional/national/international regulations.
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** None of the ingredients is listed.
- **Seveso category** E1 Hazardous to the Aquatic Environment
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 100 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 200 t
- **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.

(Contd. on page 9)

AU

according to WHS Regulations

Printing date 17.01.2024

Revision: 17.01.2024

Trade name: 8329HTC-A

(Contd. of page 8)

· **Relevant phrases***H228 Flammable solid.**H261 In contact with water releases flammable gas.**H315 Causes skin irritation.**H317 May cause an allergic skin reaction.**H319 Causes serious eye irritation.**H335 May cause respiratory irritation.*· **Department issuing SDS:** Product safety department.· **Contact:** sds@mgchemicals.com· **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**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)**PBT: Persistent, Bioaccumulative and Toxic**vPvB: very Persistent and very Bioaccumulative**Flam. Sol. 1: Flammable solids – Category 1**Water-react. 2: Substances and mixtures which in contact with water emit flammable gases – Category 2**Skin Irrit. 2: Skin corrosion/irritation – Category 2**Serious eye damage/irritation – Category 2A: Serious eye damage/eye irritation – Category 2A**Skin Sens. 1: Skin sensitisation – Category 1**STOT SE 3: Specific target organ toxicity (single exposure) – Category 3*· *** Data compared to the previous version altered.**

—AU—