



## SAFETY DATA SHEET

in accordance with 1907/2006/EC (REACH, as amended by 453/2010/EC) 29 CFR 1910.1200 and WHMIS 2015

**Revision date:** 26 April 2018

**Initial date of issue:** 17 May 2007

**SDS No.** 340A-6a

### SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

#### 1.1. Product identifier

ARC MX2 (Part A)

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

ARC Polymer Composite. Repair damage caused by impact, abrasion, erosion or corrosion; rebuild worn areas; fill holes and cracks; provide abrasion resistant surfaces.

#### 1.3. Details of the supplier of the safety data sheet

**Company:**

A.W. CHESTERTON COMPANY  
860 Salem Street  
Groveland, MA 01834-1507, USA  
Tel.: +1 978-469-6446 Fax: +1 978-469-6785  
(Mon. - Fri. 8:30 - 5:00 PM EST)  
SDS requests: [www.chesterton.com](http://www.chesterton.com)  
E-mail (SDS questions): [ProductMSDSs@chesterton.com](mailto:ProductMSDSs@chesterton.com)  
E-mail: [customer.service@chesterton.com](mailto:customer.service@chesterton.com)

**Supplier:**

Canada: A.W. Chesterton Company Ltd., 889 Fraser Drive,  
Unit 105, Burlington, Ontario L7L 4X8 - Tel. 905-335-5055  
EU: Chesterton International GmbH, Am Lenzenfleck 23,  
D85737 Ismaning, Germany - Tel. +49-89-996-5460

#### 1.4. Emergency telephone number

24 hours per day, 7 days per week  
Call Infotrac: 1-800-535-5053  
Outside N. America: +1 352-323-3500 (collect)

### SECTION 2: HAZARDS IDENTIFICATION

#### 2.1. Classification of the substance or mixture

##### 2.1.1. Classification according to Regulation (EC) No 1272/2008 [CLP] / 29 CFR 1910.1200 / WHMIS 2015 / GHS

Eye Irrit. 2, H319  
Skin Irrit. 2, H315  
Skin Sens. 1, H317  
Aquatic Chronic 3, H412

##### 2.1.2. Classification according to Directives 1999/45/EC and 1975/324/EEC

Irritant; Xi; R36/38  
R43  
R52/53

##### 2.1.3. Classification according to WHMIS 1988

D2A: Very toxic materials causing other effects; D2B: Toxic materials causing other effects

##### 2.1.4. Australian statement of hazardous nature

Hazardous according to criteria of Safe Work Australia.

##### 2.1.5. Additional information

For full text of H-statements and R-phrases: see SECTIONS 2.2 and 16.

**2.2. Label elements**

Labelling according to Regulation (EC) No 1272/2008 [CLP] / 29 CFR 1910.1200 / WHMIS 2015 / GHS

Hazard pictograms:



Signal word: Warning

Hazard statements:

H315	Causes skin irritation.
H319	Causes serious eye irritation.
H317	May cause an allergic skin reaction.
H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:

P273	Avoid release to the environment.
P280	Wear protective gloves and eye/face protection.
P302/352	IF ON SKIN: Wash with plenty of soap and water.
P333/313	If skin irritation or rash occurs: Get medical advice/attention.
P305/351/338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337/313	If eye irritation persists: Get medical advice/attention.
P362/364	Take off contaminated clothing and wash it before reuse.

Supplemental information: None

**2.3. Other hazards**

The safety and health hazards are detailed separately for Part A and Part B. The final cured material is considered nonhazardous.

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS****3.2. Mixtures**

Hazardous Ingredients <sup>1</sup>	% Wt.	CAS No./ EC No.	REACH Reg. No.	Classification (CLP/GHS)	Classification (67/548/EEC)
Epoxy resin (number average molecular weight <= 700)	10-21	25068-38-6 500-033-5	01-211945 6619-26	Eye Irrit. 2, H319 Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Chronic 2, H411	Xi; R36/38 R43 N; R51-53
Benzyl Alcohol	1-5	100-51-6 202-859-9	NA	Acute Tox. 4, H332, H302 Eye Irrit. 2, H319	Xn; R20/22
Other ingredients:					
Aluminum oxide	55-65	1344-28-1 215-691-6	NA	Not classified*	Not classified
Silica (Quartz)	1-5	14808-60-7 238-878-4	NA	Not classified*	Not classified
Titanium dioxide	0.1-0.9	13463-67-7 236-675-5	01-211948 9379-17	Not classified*	Not classified

Indications of danger acc. to 67/548/EEC: Xn: Harmful; Xi: Irritant; N: Dangerous for the environment

For full text of H-statements and R-phrases: see SECTION 16.

\*Substance with a workplace exposure limit.

<sup>1</sup> Classified according to: \* 29 CFR 1910.1200, 1915, 1916, 1917, Mass. Right-to-Know Law (ch. 40, M.G.L..O. 111F), California Proposition 65  
\* 1272/2008/EC, 67/548/EEC, 99/45/EC, REACH  
\* WHMIS 2015  
\* Safe Work Australia [NOHSC: 1008 (2004)]

**SECTION 4: FIRST AID MEASURES****4.1. Description of first aid measures**

**Inhalation:** Remove to fresh air. If not breathing, administer artificial respiration. Contact physician.

**Skin contact:** Remove contaminated clothing. Wash clothing before reuse. Wash skin with soap and water. Contact physician if irritation persists.

**Eye contact:** Flush eyes for at least 15 minutes with large amounts of water. Contact physician if irritation persists.

**Ingestion:** Do not induce vomiting. Contact physician immediately.

**4.2. Most important symptoms and effects, both acute and delayed**

Moderate eye and skin irritant. May cause skin sensitization as evidenced by rashes or hives. If vapors are produced, they will irritate the respiratory tract and cause coughing and labored breathing.

**4.3. Indication of any immediate medical attention and special treatment needed**

Treat symptoms.

**SECTION 5: FIRE-FIGHTING MEASURES****5.1. Extinguishing media**

Carbon Dioxide, dry chemical, foam, water fog

**5.2. Special hazards arising from the substance or mixture**

None

**5.3. Advice for firefighters**

Cool exposed containers with water. Recommend Firefighters wear self-contained breathing apparatus.

**Flammability Classification:** –**HAZCHEM Emergency Action Code:** 2 **Z****SECTION 6: ACCIDENTAL RELEASE MEASURES****6.1. Personal precautions, protective equipment and emergency procedures**

Avoid skin contact. Utilize exposure controls and personal protection as specified in Section 8.

**6.2. Environmental Precautions**

Keep out of sewers, streams and waterways.

**6.3. Methods and material for containment and cleaning up**

Scoop up and transfer to a suitable container for disposal.

**6.4. Reference to other sections**

Refer to section 13 for disposal advice.

**SECTION 7: HANDLING AND STORAGE****7.1. Precautions for safe handling**

Remove contaminated clothing immediately. Wash clothing before reuse. Contaminated leather including shoes cannot be decontaminated and should be discarded. Utilize exposure controls and personal protection as specified in Section 8. Avoid creating and breathing dust during removal, drilling, grinding, sawing or sanding.

**7.2. Conditions for safe storage, including any incompatibilities**

Store in a cool, dry area.

**7.3. Specific end use(s)**

No special precautions.

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION****8.1. Control parameters****Occupational exposure limit values**

Ingredients	OSHA PEL <sup>1</sup>		ACGIH TLV <sup>2</sup>		UK WEL <sup>3</sup>		AUSTRALIA ES <sup>4</sup>	
	ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>
Epoxy resin (number average molecular weight <= 700)	–	–	–	–	–	–	–	–
Benzyl Alcohol	–	–	–	–	–	–	–	–
Aluminum oxide	(resp) (total)	5 15	–	10	(inhal) (resp)	10 4	(insp)	10
Silica (Quartz)	(resp) (total)	10/(% SiO <sub>2</sub> + 2) 30/(% SiO <sub>2</sub> + 2)	(resp)	0.025	–	0.1	–	0.1
Titanium dioxide	(total)	15	–	10	(inhal) (resp)	10 4	–	10

<sup>1</sup> United States Occupational Health & Safety Administration permissible exposure limits.

<sup>2</sup> American Conference of Governmental Industrial Hygienists threshold limit values.

<sup>3</sup> EH40 Workplace exposure limits, Health & Safety Executive

<sup>4</sup> Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment [NOHSC:1003].

## 8.2. Exposure controls

### 8.2.1. Engineering measures

Provide sufficient ventilation to keep the vapor concentrations below the exposure limits. If it is necessary to alter the final cured product such that dust may be generated, use adequate dust extraction or damp down.

### 8.2.2. Individual protection measures

**Respiratory protection:** Not normally needed. If exposure limits are exceeded, utilize an approved air-supplied respirator.

**Protective gloves:** Chemical resistant gloves (e.g., neoprene)

**Eye and face protection:** Safety glasses

**Other:** Impervious clothing as necessary to prevent skin contact.

### 8.2.3. Environmental exposure controls

Refer to sections 6 and 12.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on basic physical and chemical properties

<b>Physical state</b>	paste	<b>Odour</b>	Epoxy resin
<b>Colour</b>	white	<b>Odour threshold</b>	not determined
<b>Initial boiling point</b>	not determined	<b>Vapour pressure @ 20°C</b>	not determined
<b>Melting point</b>	not determined	<b>% Aromatics by weight</b>	None
<b>% Volatile (by volume)</b>	None	<b>pH</b>	not applicable
<b>Flash point</b>	> 200°C (> 400°F)	<b>Relative density</b>	2.38 kg/l
<b>Method</b>	PM Closed Cup	<b>Weight per volume</b>	19.81 lbs/gal.
<b>Viscosity</b>	50,000 cps	<b>Coefficient (water/oil)</b>	< 1
<b>Autoignition temperature</b>	not determined	<b>Vapour density (air=1)</b>	> 1
<b>Decomposition temperature</b>	no data available	<b>Rate of evaporation (ether=1)</b>	< 1
<b>Upper/lower flammability or explosive limits</b>	not determined	<b>Solubility in water</b>	very slight
<b>Flammability (solid, gas)</b>	not applicable	<b>Oxidising properties</b>	not applicable
<b>Explosive properties</b>	not applicable		

### 9.2. Other information

None

## SECTION 10: STABILITY AND REACTIVITY

### 10.1. Reactivity

Refer to sections 10.3 and 10.5.

### 10.2. Chemical stability

Stable

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under conditions of normal use.

### 10.4. Conditions to avoid

None

### 10.5. Incompatible materials

Strong mineral acids and bases and strong oxidizers like liquid Chlorine and concentrated Oxygen.

### 10.6. Hazardous decomposition products

Carbon Monoxide, aldehydes, acids and other toxic fumes.

**SECTION 11: TOXICOLOGICAL INFORMATION****11.1. Information on toxicological effects**

**Primary route of exposure under normal use:** Inhalation, skin and eye contact. Personnel with pre-existing skin and eye disorders and skin allergies may be aggravated by exposure.

**Acute effects:** Moderate eye and skin irritant. May cause skin sensitization as evidenced by rashes or hives. If vapors are produced, they will irritate the respiratory tract and cause coughing and labored breathing.

Substance	Test	Result
Epoxy resin (CAS No. 25068-38-6)	LD50 oral, rat	> 5000 mg/kg
Epoxy resin (CAS No. 25068-38-6)	LC50 dermal, rabbit	> 6000 mg/kg
Benzyl Alcohol	LC50 inhalation, rat	> 4.178 mg/l
Benzyl Alcohol	LD50 oral, rat	1230 mg/kg
Titanium dioxide	LC50 inhalation, rat	> 6.82 mg/l/4 h
Titanium dioxide	LD50 oral, rat	> 10000 mg/kg
Titanium dioxide	LD50 dermal, rabbit	> 10000 mg/kg
Aluminum oxide	LD50 oral, rat	> 5000 mg/kg

**Chronic effects:** Repeated inhalation of respirable free silica may cause scarring of the lungs with cough and shortness of breath. Silicosis, a delayed lung injury that is a disabling, progressive and sometimes fatal pulmonary fibrosis, may result.

**Carcinogenicity:** The International Agency for Research on Cancer (IARC) and the National Toxicology Program (NTP) have classified inhaled silica as a human carcinogen. Based on recent 2-year mice skin painting studies and other available information, the International Agency for Research on Cancer (IARC) concluded that they did not have enough information to classify Epoxy resin (number average molecular weight  $\leq$  700, CAS no. 25068-38-6). The International Agency for Research on Cancer (IARC) has designated inhaled titanium dioxide as possibly carcinogenic to humans (group 2B). The silica and titanium dioxide in this product do not separate from the mixture or in of themselves become airborne, therefore, do not present a hazard in normal use.

**Aspiration hazard:** Not classified as an aspiration toxicant.

**Other information:** None known

**SECTION 12: ECOLOGICAL INFORMATION**

Ecotoxicological data have not been determined specifically for this product. The information given below is based on a knowledge of the components and the ecotoxicology of similar substances.

**12.1. Toxicity**

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**12.2. Persistence and degradability**

Epoxy resin: not readily biodegradable. Benzyl Alcohol: expected to biodegrade relatively quickly.

**12.3. Bioaccumulative potential**

Epoxy resin: has the potential to bioaccumulate. Benzyl Alcohol: low potential for bioaccumulation (BCF < 100).

**12.4. Mobility in soil**

Paste. Solubility in water: very slight. In determining environmental mobility, consider the product's physical and chemical properties (see Section 9). Epoxy resin, Benzyl Alcohol: if product enters soil, it will be mobile and may contaminate groundwater.

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

Not available

**12.6. Other adverse effects**

None known

**SECTION 13: DISPOSAL CONSIDERATIONS****13.1. Waste treatment methods**

Combine resin and curative. The final cured material is considered nonhazardous. Landfill sealed containers with a properly licensed facility. Unreacted components are a special waste (classified as hazardous according to 2008/98/EC). Check local, state and national/federal regulations and comply with the most stringent requirement.

**European List of Wastes code:** 08 04 09

**SECTION 14: TRANSPORT INFORMATION**

**14.1. UN number**

ADR/RID/ADN/IMDG/ICAO: NOT APPLICABLE  
 TDG: NOT APPLICABLE  
 US DOT: NOT APPLICABLE

**14.2. UN proper shipping name**

ADR/RID/ADN/IMDG/ICAO: NON-HAZARDOUS, NON REGULATED  
 TDG: NON-HAZARDOUS, NON REGULATED  
 US DOT: NON-HAZARDOUS, NON REGULATED

**14.3. Transport hazard class(es)**

ADR/RID/ADN/IMDG/ICAO: NOT APPLICABLE  
 TDG: NOT APPLICABLE  
 US DOT: NOT APPLICABLE

**14.4. Packing group**

ADR/RID/ADN/IMDG/ICAO: NOT APPLICABLE  
 TDG: NOT APPLICABLE  
 US DOT: NOT APPLICABLE

**14.5. Environmental hazards**

NOT APPLICABLE

**14.6. Special precautions for user**

NOT APPLICABLE

**14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

NOT APPLICABLE

**14.8. Other information**

NOT APPLICABLE

**SECTION 15: REGULATORY INFORMATION**

**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

**15.1.1. EU regulations**

Authorisations under Title VII: Not applicable

Restrictions under Title VIII: None

Other EU regulations: Directive 94/33/EC on the protection of young people at work.

**15.1.2. National regulations**

**US EPA SARA TITLE III**

**312 Hazards:**      **313 Chemicals:**  
 Immediate          None  
 Delayed

**Hazardous Materials Identification System (HMIS)**

4 = Severe Hazard  
 3 = Serious Hazard  
 2 = Moderate Hazard  
 1 = Slight Hazard  
 0 = Minimal Hazard  
 \* = See Section 8

<b>HEALTH</b>	<b>2</b>
<b>FLAMMABILITY</b>	<b>1</b>
<b>PHYSICAL HAZARD</b>	<b>1</b>
<b>Personal Protection</b>	<b>*</b>

**Other national regulations:** National implementation of the EC Directive referred to in section 15.1.1.

**15.2. Chemical safety assessment**

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

**SECTION 16: OTHER INFORMATION**

**Abbreviations and acronyms:** ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways  
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road  
ATE: Acute Toxicity Estimate  
BCF: Bioconcentration Factor  
CLP: Classification Labelling Packaging Regulation (1272/2008/EC)  
ES: Exposure Standard  
GHS: Globally Harmonized System  
ICAO: International Civil Aviation Organization  
IMDG: International Maritime Dangerous Goods  
LC50: Lethal Concentration to 50 % of a test population  
LD50: Lethal Dose to 50% of a test population  
LOEL: Lowest Observed Effect Level  
N/A: Not Applicable  
NA: Not Available  
NOAEL: No Observed Adverse Effect Level  
NOEL: No Observed Effect Level  
OECD: Organization for Economic Co-operation and Development  
PBT: Persistent, Bioaccumulative and Toxic substance  
(Q)SAR: Quantitative Structure-Activity Relationship  
REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (1907/2006/EC)  
RID: Regulations concerning the International Carriage of Dangerous Goods by Rail  
SDS: Safety Data Sheet  
STEL: Short Term Exposure Limit  
STOT: Specific Target Organ Toxicity  
TDG: Transportation of Dangerous Goods (Canada)  
US DOT: United States Department of Transportation  
vPvB: very Persistent and very Bioaccumulative substance  
WEL: Workplace Exposure Limit  
WHMIS: Workplace Hazardous Materials Information System  
Other abbreviations and acronyms can be looked up at [www.wikipedia.org](http://www.wikipedia.org).

**Key literature references and sources for data:** Commission de la santé et de la sécurité du travail (CSST)  
Chemical Classification and Information Database (CCID)  
European Chemicals Agency (ECHA) - Information on Chemicals  
Hazardous Substances Information System (HSIS)  
National Institute of Technology and Evaluation (NITE)  
Swedish Chemicals Agency (KEMI)  
U.S. National Library of Medicine Toxicology Data Network (TOXNET)

**Procedure used to derive the classification for mixtures according to Regulation (EC) No 1272/2008:**

Classification	Classification procedure
Eye Irrit. 2, H319	Calculation method
Skin Irrit. 2, H315	Calculation method
Skin Sens. 1, H317	Bridging principle "Dilution"
Aquatic Chronic 3, H412	Calculation method

**Relevant H-statements:** H302: Harmful if swallowed.  
H315: Causes skin irritation.  
H317: May cause an allergic skin reaction.  
H319: Causes serious eye irritation.  
H332: Harmful if inhaled.  
H411: Toxic to aquatic life with long lasting effects.

**Relevant R-phrases:** R20/22: Harmful by inhalation and if swallowed.  
R36/38: Irritating to eyes and skin.  
R43: May cause sensitisation by skin contact.  
R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Hazard pictogram names:** Exclamation mark

**Changes to the SDS in this revision:** Section 1.3, 16.

**Date of last revision:** 26 April 2018

**Further information:** None

This information is based solely on data provided by suppliers of the materials used, not on the mixture itself. No warranty is expressed or implied regarding the suitability of the product for the user's particular purpose. The user must make their own determination as to suitability.