

## SAFETY DATA SHEET

in accordance with 1907/2006/EC (REACH, as amended by 2015/830/EU) 29 CFR 1910.1200 and WHMIS 2015

**Revision date:** 26 April 2018      **Initial date of issue:** 6 July 2007      **SDS No.** 234B-19a

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

#### 1.1. Product identifier

ARC 855 (Part B)

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

ARC Polymer Composite to be used with ARC 855 (Part A) and ARC 855N (Part A). 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

Skin Corr. 1B, H314  
Acute Tox. 4, H302  
Skin Sens. 1, H317  
Aquatic Chronic 3, H412

##### 2.1.2. Classification according to WHMIS 1988

E: Corrosive materials; D2B: Toxic materials causing other effects

##### 2.1.3. Australian statement of hazardous nature

Hazardous according to criteria of Safe Work Australia.

##### 2.1.4. Additional information

For full text of H-statements: 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:

Danger

<b>Hazard statements:</b>	H314	Causes severe skin burns and eye damage.
	H302	Harmful if swallowed.
	H317	May cause an allergic skin reaction.
	H412	Harmful to aquatic life with long lasting effects.
<b>Precautionary statements:</b>	P273	Avoid release to the environment.
	P280	Wear protective gloves/clothing and eye/face protection.
	P303/361/353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
	P305/351/338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
	P301/330/331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
	P310	Immediately call a POISON CENTER or doctor/physician.
	P333/313	If skin irritation or rash occurs: Get medical advice/attention.
	P363	Wash contaminated clothing 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. Upon machining, refer to the precautions in the safety data sheets for Part A and Part B.

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.2. Mixtures

Hazardous Ingredients <sup>1</sup>	% Wt.	CAS No./ EC No.	REACH Reg. No.	CLP/GHS Classification
Benzyl Alcohol	30-60	100-51-6 202-859-9	01-211949 2630-38	Acute Tox. 4, H302/332 Eye Irrit. 2, H319
3-Aminomethyl-3,5,5-trimethylcyclohexylamine	30-60	2855-13-2 220-666-8	01-211951 4687-32	Acute Tox. 4, H302/312 Skin Corr. 1B, H314 Skin Sens. 1, H317
3-Aminomethyl-3,5,5-trimethylcyclohexylamine, reaction products with bisphenol A diglycidyl ether homopolymer	15-40	68609-08-5 Polymer	01-211996 5165-33*	Aquatic Chronic 3, H412 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Chronic 3, H412

\*Covered by CAS # 38294-64-3

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

<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, REACH  
\* WHMIS 2015  
\* Safe Work Australia [NOHSC: 1008 (2004)]

## SECTION 4: FIRST AID MEASURES

### 4.1. Description of first aid measures

<b>Inhalation:</b>	Remove to fresh air. If not breathing, administer artificial respiration. Contact physician.
<b>Skin contact:</b>	Flood area with water while removing contaminated clothing. Wash clothing before reuse. Consult physician.
<b>Eye contact:</b>	Flush eyes for at least 30 minutes with large amounts of water. Contact physician.
<b>Ingestion:</b>	Do not induce vomiting. If conscious, dilute stomach contents with large quantities of water. Contact physician immediately.

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

Direct contact will cause burns to skin, eyes and mucous membranes. High vapor concentrations may cause respiratory tract irritation. May cause allergic skin sensitization.

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

Treat symptoms.

**SECTION 5: FIREFIGHTING MEASURES****5.1. Extinguishing media**

**Suitable extinguishing media:** Carbon Dioxide, dry chemical, foam or water fog

**Unsuitable extinguishing media:** High volume water jet

**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:** not determined

**HAZCHEM Emergency Action Code:** 2 **Z**

**SECTION 6: ACCIDENTAL RELEASE MEASURES****6.1. Personal precautions, protective equipment and emergency procedures**

Evacuate area. Provide adequate ventilation. 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**

Contain spill to a small area. Pick up with absorbent material (sand, sawdust, clay, etc.) and place in a suitable container for disposal. Flush floor with dilute (5%) Acetic Acid. Collect rinsate for proper 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**

Avoid all direct contact. Wash thoroughly after handling. Avoid breathing mist or vapor. Utilize exposure controls and personal protection as specified in Section 8. Remove contaminated clothing immediately. Contaminated work clothing should not be allowed out of the workplace. Wash clothing before reuse. Contaminated leather including shoes cannot be decontaminated and should be discarded.

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

Store in 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>
Benzyl Alcohol	–	–	–	–	–	–	–	–
3-Aminomethyl-3,5,5-trimethylcyclohexylamine	–	–	–	–	–	–	–	–
3-Aminomethyl-3,5,5-trimethylcyclohexylamine, reaction products with bisphenol A diglycidyl ether homopolymer	–	–	–	–	–	–	–	–

<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 adequate ventilation. If necessary, provide local exhaust.

**8.2.2. Individual protection measures**

**Respiratory protection:** Not normally needed. If necessary, utilize an approved (amine) organic vapor respirator (e.g., EN filter type A-P3).

**Protective gloves:** Chemical resistant gloves (e.g., butyl rubber, nitrile)

3-Aminomethyl-3,5,5-trimethylcyclohexylamine:

Contact type	Glove material	Layer thickness	Breakthrough time
Full	nitrile rubber	0.40 mm	> 480 min.
Splash	neoprene	0.65 mm	> 30 min.

**Eye and face protection:** Safety goggles.

**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>	liquid	<b>Odour</b>	Ammonia
<b>Colour</b>	clear - colorless	<b>Odour threshold</b>	not determined
<b>Initial boiling point</b>	> 200°C (> 392°F)	<b>Vapour pressure @ 20°C</b>	not determined
<b>Melting point</b>	not applicable	<b>% Aromatics by weight</b>	0%
<b>% Volatile (by volume)</b>	0%	<b>pH</b>	not applicable
<b>Flash point</b>	> 100°C (> 212°F)	<b>Relative density</b>	1.0 kg/l
<b>Method</b>	PM Closed Cup	<b>Weight per volume</b>	8.34 lbs/gal.
<b>Viscosity</b>	260 cps @ 25°C	<b>Coefficient (water/oil)</b>	not determined
<b>Autoignition temperature</b>	not determined	<b>Vapour density (air=1)</b>	> 1
<b>Decomposition temperature</b>	not determined	<b>Rate of evaporation (ether=1)</b>	< 1
<b>Upper/lower flammability or explosive limits</b>	not applicable	<b>Solubility in water</b>	not determined
<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**

Open flames and red hot surfaces.

**10.5. Incompatible materials**

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

**10.6. Hazardous decomposition products**

Carbon Monoxide, Carbon Dioxide 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 allergies, eczema or skin conditions may be aggravated by exposure.

**Acute toxicity -**

**Oral:** Harmful if swallowed. ATE-mix = 1210 mg/kg

Substance	Test	Result
Product	LD50, rat	200-2000 mg/kg
Benzyl Alcohol	LD50, rat	1230 mg/kg
3-Aminomethyl-3,5,5-trimethylcyclohexylamine	LD50, rat	1030 mg/kg
3-Aminomethyl-3,5,5-trimethylcyclohexylamine, reaction products with bisphenol A diglycidyl ether homopolymer	LD50, rat	3100 mg/kg

**Dermal:** ATE-mix = 2227 mg/kg

Substance	Test	Result
Benzyl Alcohol	LD50, rabbit	2000 mg/kg
3-Aminomethyl-3,5,5-trimethylcyclohexylamine	LD50, rat	> 1840 mg/kg

**Inhalation:** High vapor concentrations may cause respiratory tract irritation. ATE-mix  $\geq$  20 mg/l (vapor). ATE-mix = 6.96 mg/l (mist).

Substance	Test	Result
Benzyl Alcohol	LC50, rat, 4 h	11 mg/l (vapor)
Benzyl Alcohol	LC50, rat, 4 h	> 4.178 mg/l (mist)
3-Aminomethyl-3,5,5-trimethylcyclohexylamine	LC50, rat, 4 h	> 5.01 mg/l (mist, analytical)

**Skin corrosion/irritation:** Causes burns.

Substance	Test	Result
3-Aminomethyl-3,5,5-trimethylcyclohexylamine	Skin irritation, rabbit	Corrosive

**Serious eye damage/irritation:** Causes serious eye damage.

Substance	Test	Result
3-Aminomethyl-3,5,5-trimethylcyclohexylamine	Eye irritation, rabbit, OECD 405	Corrosive

**Respiratory or skin sensitisation:** May cause allergic skin sensitization.

Substance	Test	Result
3-Aminomethyl-3,5,5-trimethylcyclohexylamine	Skin sensitization, guinea pig, OECD 406	Sensitizing

**Germ cell mutagenicity:** Benzyl Alcohol, 3-Aminomethyl-3,5,5-trimethylcyclohexylamine: based on available data, the classification criteria are not met.

**Carcinogenicity:** As per 29 CFR 1910.1200 (Hazard Communication), this product contains no carcinogens as listed by the National Toxicology Program (NTP), the International Agency for Research on Cancer (IARC), the Occupational Safety and Health Administration (OSHA) or Regulation (EC) No 1272/2008.

**Reproductive toxicity:** 3-Aminomethyl-3,5,5-trimethylcyclohexylamine: developmental NOAEL > 250 mg/kg/day; maternal NOEL 50 mg/kg/day.

**STOT-single exposure:** 3-Aminomethyl-3,5,5-trimethylcyclohexylamine: based on available data, the classification criteria are not met.

**STOT-repeated exposure:** 3-Aminomethyl-3,5,5-trimethylcyclohexylamine: 48 h EL50 (for daphnia).

Substance	Test	Result
3-Aminomethyl-3,5,5-trimethylcyclohexylamine	90-day oral subchronic study, OECD 408	NOAEL: 59 mg/kg/day (male), 62 mg/kg/day (female)

**Aspiration hazard:** Not expected to be an aspiration toxicant based on viscosity.

**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. 96 h LC50 (fish) > 10 – 100 mg/l.

### 12.2. Persistence and degradability

3-Aminomethyl-3,5,5-trimethylcyclohexylamine: biodegradable. Benzyl Alcohol: readily biodegradable.

### 12.3. Bioaccumulative potential

Benzyl Alcohol: low potential for bioaccumulation (log Kow: 1.1). 3-Aminomethyl-3,5,5-trimethylcyclohexylamine: low potential for bioaccumulation (BCF [QSAR]: 3.16).

### 12.4. Mobility in soil

Liquid. Slightly soluble in water. In determining environmental mobility, consider the product's physical and chemical properties (see Section 9). Benzyl Alcohol: expected to have very high mobility in soils. 3-Aminomethyl-3,5,5-trimethylcyclohexylamine: log Koc (QSAR) = 2.97.

### 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

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

## SECTION 14: TRANSPORT INFORMATION

### 14.1. UN number

**ADR/RID/ADN/IMDG/ICAO:** UN2289  
**TDG:** UN2289  
**US DOT:** UN2289

### 14.2. UN proper shipping name

**ADR/RID/ADN/IMDG/ICAO:** ISOPHORONEDIAMINE SOLUTION  
**TDG:** ISOPHORONEDIAMINE SOLUTION  
**US DOT:** ISOPHORONEDIAMINE SOLUTION

### 14.3. Transport hazard class(es)

**ADR/RID/ADN/IMDG/ICAO:** 8  
**TDG:** 8  
**US DOT:** 8

### 14.4. Packing group

**ADR/RID/ADN/IMDG/ICAO:** III  
**TDG:** III  
**US DOT:** III

### 14.5. Environmental hazards

NO ENVIRONMENTAL HAZARDS

### 14.6. Special precautions for user

NO SPECIAL PRECAUTIONS FOR USER

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

NOT APPLICABLE

**14.8. Other information****US DOT:** ERG NO. 153

May be shipped as Limited Quantities in packaging having a rated capacity gross weight of 66 lb. or less and in inner packages not over 5 Liters (49 CFR 173.154 (b,2))

**IMDG:** EmS F-A, S-B, IMDG segregation group 18-Alkalis

**ADR:** Classification code C7, Tunnel restriction code (E)

**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:**

Immediate  
Delayed

**313 Chemicals:**

None

**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  
NOEC: No Observed Effect Concentration  
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 RE: Specific Target Organ Toxicity, Repeated Exposure  
STOT SE: Specific Target Organ Toxicity, Single Exposure  
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 des normes, de l'équité, de la santé et de la sécurité du travail (CNESST)  
 Commission des normes, de l'équité, de la santé et de la sécurité du travail (CNESST)  
 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 [CLP] / GHS:**

Classification	Classification procedure
Skin Corr. 1B, H314	Calculation method
Acute Tox. 4, H302	On basis of test data
Acute Tox. 4, H312, H332	Bridging principle "Dilution"
Skin Sens. 1, H317	Bridging principle "Dilution"
Aquatic Chronic 3, H412	Calculation method

**Relevant H-statements:** H302/312: Harmful if swallowed or in contact with skin.  
 H302/332: Harmful if swallowed or if inhaled.  
 H314: Causes severe skin burns and eye damage.  
 H317: May cause an allergic skin reaction.  
 H319: Causes serious eye irritation.  
 H411: Toxic to aquatic life with long lasting effects.  
 H412: Harmful to aquatic life with long lasting effects.

**Hazard pictogram names:** Corrosion, exclamation mark

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

**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.