

SAFETY DATA SHEET

in accordance with 29 CFR 1910.1200, WHMIS 2022 and Safe Work Australia

Revision date: 24 March 2025

Date of previous issue: –

SDS No. 490B

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

1.1. Product identifier

ARC CFW-CR (Part B)

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

Relevant identified uses: ARC Polymer Composite to be used with glass fiber and carbon fiber wrap.

Uses advised against: No information available

Reason why uses advised against: Not applicable

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

(Mon. - Fri. 8:30 - 5:00 PM EST)

SDS requests: www.chesterton.com

E-mail (SDS questions): ProductSDSs@chesterton.com

E-mail: customer.service@chesterton.com

Supplier:

Canada: A.W. Chesterton Company Ltd., 889 Fraser Drive,
Unit 105, Burlington, Ontario L7L 4X8 – Tel. 905-335-5055

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)

NSW Poisons Information Centre (Australia): 13 11 26

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

2.1.1. Classification according to 29 CFR 1910.1200 / WHMIS 2022 / Safe Work Australia / GHS

Acute toxicity, Category 4, H302/332

Skin corrosion, Category 1B, H314

Serious eye damage, Category 1, H318

Skin sensitization, Category 1, H317

Hazardous to the aquatic environment, Chronic, Category 2, H411

2.1.2. Additional information

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

2.2. Label elements

Labeling according to 29 CFR 1910.1200 / WHMIS 2022 / Safe Work Australia / GHS

Hazard pictograms:



Signal word:

Danger

Hazard statements:

H302/332

Harmful if swallowed or if inhaled.

H314

Causes severe skin burns and eye damage.

H317

May cause an allergic skin reaction.

H411

Toxic to aquatic life with long lasting effects.

Precautionary statements:	P262	Avoid breathing vapours.
	P264	Wash skin thoroughly after handling.
	P270	Do not eat, drink or smoke when using this product.
	P271	Use only outdoors or in a well-ventilated area.
	P272	Contaminated work clothing must not be allowed out of the workplace.
	P273	Avoid release to the environment.
	P280	Wear protective gloves/clothing and eye/face protection.
	P301/330/331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
	P303/361/353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
	P304/340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
	P305/351/338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
	P310	Immediately call a POISON CENTER or doctor.
	P312	Call a POISON CENTER or doctor if you feel unwell.
	P333/313	If skin irritation or rash occurs: Get medical advice/attention.
	P363	Wash contaminated clothing before reuse.
	P391	Collect spillage.
	P405	Store locked up.
	P501	Dispose of contents/container to an approved waste disposal plant.

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 ¹	% Wt.	CAS No.	GHS Classification
Benzyl alcohol	30-60	100-51-6	Acute Tox. 4, H302 Eye Irrit. 2A, H319 Skin Sens. 1B, H317
m-Phenylenebis(methylamine) (Synonym: m-Xylene-alpha, alpha'-Diamine)	10-30	1477-55-0	Acute Tox. 4, H302, H332 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1B, H317 Aquatic Chronic 3, H412
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with ethylenediamine	5-10	72480-18-3	Acute Tox. 4, H302 Skin Corr. 1, H314 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

¹ Classified according to: 29 CFR 1910.1200, 1915, 1916, 1917, Mass. Right-to-Know Law (ch. 40, M.G.L..O. 111F), WHMIS 2022, Safe Work Australia, GHS

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:	Flood area with water while removing contaminated clothing. Wash clothing before reuse. Wash skin with soap and water. Contact physician.
Eye contact:	Flush eyes for at least 15 minutes with large amounts of water. Contact physician.
Ingestion:	Do not induce vomiting without medical advice. If conscious, give 1-2 glasses of water to drink. Prevent aspiration of vomit. Turn victim's head to the side. Contact physician immediately.
Protection of first-aiders:	No action shall be taken involving any personal risk or without suitable training. Avoid contact with the product while providing aid to the victim. Provide adequate ventilation. See section 8.2.2 for recommendations on personal protective equipment.

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

Direct contact will cause burns to skin, eyes and mucous membranes. May cause an allergic skin reaction. Repeated and/or prolonged exposure to low concentrations of vapors and/or aerosols may cause: sore throat.

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

Treat symptoms.

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

Suitable extinguishing media: Carbon dioxide, dry chemical, dry sand, limestone powder, alcohol-resistant foam, water spray.

Unsuitable extinguishing media: No data available

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products: May generate: ammonia gas, toxic nitrogen oxide gases. Incomplete combustion may form carbon monoxide.

Other hazards: Use of water may result in the formation of very toxic aqueous solutions. Do not allow runoff from firefighting to enter drains or water courses.

5.3. Advice for firefighters

A face shield should be worn. Use personal protective equipment. Recommend Firefighters wear self-contained breathing apparatus.

Australian 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

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**

Avoid breathing vapours. Utilize exposure controls and personal protection as specified in Section 8. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Remove contaminated clothing immediately. 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 a cool, dry and well-ventilated area. Do not store near acids.

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 ¹		ACGIH TLV ²		AUSTRALIA ES ³	
	ppm	mg/m ³	ppm	mg/m ³	ppm	mg/m ³
Benzyl alcohol *	N/A	N/A	N/A	N/A	N/A	N/A
m-Phenylenebis(methylamine)	N/A	N/A	0.018 (Ceiling)	(skin)	(skin)	0.1 (Peak)
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1- chloro-2,3-epoxypropane, reaction products with ethylenediamine	N/A	N/A	N/A	N/A	N/A	N/A

* American Industrial Hygiene Association (AIHA) recommended limit: 10 ppm, 8-hr TWA.

¹ United States Occupational Health & Safety Administration permissible exposure limits

² American Conference of Governmental Industrial Hygienists threshold limit values

³ Safe Work Australia, Workplace Exposure Standards for Airborne Contaminants

Biological limit values

No biological exposure limits noted for the ingredient(s).

8.2. Exposure controls**8.2.1. Engineering measures**

Provide readily accessible eye wash stations and safety showers. Provide sufficient ventilation to keep the vapor concentrations below the exposure limits.

8.2.2. Individual protection measures

Respiratory protection: If exposure limits are exceeded, use an approved organic vapor respirator.

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

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**

Physical state	liquid	pH	not applicable
Colour	amber	Kinematic viscosity	ca. 300 mm ² /s @ 25°C (calculated)
Odour	amine	Solubility in water	insoluble
Odour threshold	not determined	Partition coefficient n-octanol/water (log value)	not applicable
Boiling point or range	> 107 °C (> 225°F)	Vapour pressure @ 20°C	not determined
Melting point/freezing point	not determined	Density and/or relative density	0.95 kg/l
% Volatile (by volume)	not determined	Weight per volume	7.9 lbs/gal.
Flammability	not determined	Vapour density (air=1)	> 1
Lower/upper flammability or explosion limits	not determined	Rate of evaporation (ether=1)	< 1
Flash point	> 110°C (> 230°F)	% Aromatics by weight	not determined
Method	PM Closed Cup	Particle characteristics	not applicable
Autoignition temperature	not determined	Explosive properties	not applicable
Decomposition temperature	not determined	Oxidising properties	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

Reaction with peroxides may result in violent decomposition of peroxide possibly creating an explosion.

10.4. Conditions to avoid

None

10.5. Incompatible materials

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

10.6. Hazardous decomposition products

Carbon Monoxide, Carbon Dioxide, NOx, Ammonia and other toxic fumes (by combustion). Nitrogen oxide can react with water vapors to form corrosive nitric acid.

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 and skin and eye disorders may be aggravated by exposure.

Acute toxicity -**Oral:**

Harmful if swallowed. ATE-mix = 769.23 mg/kg.

Substance	Test	Result
Benzyl alcohol	LD50, rat	1,620 mg/kg
m-Phenylenebis(methylamine)	LD50, rat	980 mg/kg
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with ethylenediamine	LD50, rabbit	> 300 - < 2,000 mg/kg

Dermal:

ATE-mix > 2,268 mg/kg.

Substance	Test	Result
Benzyl alcohol	LD50, rabbit	> 2,000 mg/kg
m-Phenylenebis(methylamine)	LD50, rabbit	> 2,000 mg/kg

Inhalation:

Excessive inhalation of vapors or mists can cause coughing, chest tightness and difficulty breathing. ATE-mix = 7,500 ppm (vapour). ATE-mix = 4.47 mg/l (mist).

Substance	Test	Result
Benzyl alcohol	LC0, rat	> 4.178 mg/l (mist, maximum attainable concentration)
m-Phenylenebis(methylamine)	LC50, rat, 4 h	1.34 mg/l (mist)

Skin corrosion/irritation:

Causes burns.

Substance	Test	Result
ARC CFW-CR (Part B)	Corrositex® (OECD 435)	Corrosive (Packing group II)
Benzyl alcohol	Skin irritation, rabbit (OECD 404)	Not irritating
m-Phenylenebis(methylamine)	Skin irritation, rabbit (OECD 404)	Corrosive
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with ethylenediamine	Skin irritation, rabbit (OECD 431, read-across)	Corrosive

Serious eye damage/irritation:

Risk of serious damage to eyes.

Respiratory or skin sensitisation:	May cause an allergic skin reaction.
Germ cell mutagenicity:	Benzyl alcohol, m-Phenylenebis(methylamine): based on available data, the classification criteria are not met.
Carcinogenicity:	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 the European Chemicals Agency (ECHA).
Reproductive toxicity:	Benzyl alcohol, m-Phenylenebis(methylamine): based on available data, the classification criteria are not met. Effects on or via lactation: data lacking.
STOT – single exposure:	Benzyl alcohol: based on available data, the classification criteria are not met. Other ingredients: data lacking.
STOT – repeated exposure:	Benzyl alcohol, m-Phenylenebis(methylamine): based on available data, the classification criteria are not met.
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

Toxic to aquatic life with long lasting effects. Benzyl alcohol: 96 h LC50 (Bluegill sunfish) 10 mg/l. m-Phenylenebis(methylamine): 72 h EC50 (for algae): 12 mg/l.

12.2. Persistence and degradability

Unreacted components (Parts A and B), improperly released to the environment, can cause ground and water pollution. m-Phenylenebis(methylamine): biodegradation, OECD 301B (28 days) = 49%, not readily biodegradable. Benzyl alcohol: readily biodegradable.

12.3. Bioaccumulative potential

m-Phenylenebis(methylamine): low potential for bioaccumulation (BCF < 100). Benzyl alcohol: low potential for bioaccumulation (log Kow = 1.1).

12.4. Mobility in soil

Liquid. Insoluble in water. In determining environmental mobility, consider the product's physical and chemical properties (see Section 9). m-Phenylenebis(methylamine): log Koc = 3.11 (QSAR). Benzyl alcohol: expected to have very high mobility in soils.

12.5. Endocrine disrupting properties

None known

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.

SECTION 14: TRANSPORT INFORMATION**14.1. UN number or ID number**

ADG/ADR/RID/ADN/IMDG/ICAO:	UN2735
TDG:	UN2735
US DOT:	UN2735

14.2. UN proper shipping name

ADG/ADR/RID/ADN/IMDG/ICAO:	AMINES, LIQUID, CORROSIVE, N.O.S. (ALIPHATIC AMINE)
TDG:	AMINES, LIQUID, CORROSIVE, N.O.S. (ALIPHATIC AMINE)
US DOT:	AMINES, LIQUID, CORROSIVE, N.O.S. (ALIPHATIC AMINE)

14.3. Transport hazard class(es)

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

14.4. Packing group

ADG/ADR/RID/ADN/IMDG/ICAO: II
 TDG: II
 US DOT: II

14.5. Environmental hazards

MARINE POLLUTANT

14.6. Special precautions for user

NO SPECIAL PRECAUTIONS FOR USER

14.7. Maritime transport in bulk according to IMO instruments

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 1 LITER (49 CFR 173.154 (B),(1))

IMDG: EMS F-A, S-B, IMDG SEGREGATION GROUP 18-ALKALIS

ADR: CLASSIFICATION CODE C7, TUNNEL RESTRICTION CODE (E)

ADG HAZCHEM CODE : 2X HIN: 88/80

SECTION 15: REGULATORY INFORMATION**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****15.1.1. National regulations****US EPA SARA TITLE III****312 Hazards:**

**Chemicals subject to reporting requirements of Section 313 of
 EPCRA and of 40 CFR 372:**

Acute toxicity
 Skin corrosion
 Serious eye damage
 Skin sensitization

None

TSCA: All chemical components are listed or exempted.

Other national regulations: None

SECTION 16: OTHER INFORMATION**Abbreviations
 and acronyms:**

ADG: Australian Dangerous Goods Code
 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
 cATpE: Converted Acute Toxicity point Estimate
 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
 (Q)SAR: Quantitative Structure-Activity Relationship
 REL: Recommended Exposure Limit
 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)
 TWA: Time Weighted Average
 US DOT: United States Department of Transportation
 WHMIS: Workplace Hazardous Materials Information System
 Other abbreviations and acronyms can be looked up at 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)
 Chemical Classification and Information Database (CCID)
 European Chemicals Agency (ECHA) - Information on Chemicals
 Hazardous Chemical Information System (HCIS)
 National Institute of Technology and Evaluation (NITE)
 U.S. National Library of Medicine Toxicology Data Network (TOXNET)

Procedure used to derive the classification for mixtures according to GHS:

Classification	Classification procedure
Acute Tox. 4, H302/332	Calculation method
Skin Corr. 1B, H314	Calculation method
Eye Dam. 1, H318	Calculation method
Skin Sens. 1, H317	Calculation method
Aquatic Acute 2, H411	Calculation method

Relevant H-statements: H302: Harmful if swallowed.
 H314: Causes severe skin burns and eye damage.
 H317: May cause an allergic skin reaction.
 H318: Causes serious eye damage.
 H319: Causes serious eye irritation.
 H332: Harmful if inhaled.
 H400: Very toxic to aquatic life.
 H410: Very toxic to aquatic life with long lasting effects.
 H412: Harmful to aquatic life with long lasting effects.

Hazard pictogram names: Corrosion, exclamation mark, environment

Further information: None

Date of last revision: 24 March 2025

Changes to the SDS in this revision: Original issue.

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.