

SAFETY DATA SHEET

in accordance with 29 CFR 1910.1200, WHMIS 2015 and Safe Work Australia

Revision date: 27 July 2023

Date of previous issue: 26 April 2018

SDS No. 258-11

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

1.1. Product identifier

ARC QRV

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

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

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 Fax: +1 978-469-6785

(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 2015 / Safe Work Australia / GHS

Skin sensitization, Category 1, H317

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 2015 / Safe Work Australia / GHS

Hazard pictograms:



Signal word:

Warning

Hazard statements:

H317

May cause an allergic skin reaction.

Precautionary statements:

P272

Contaminated work clothing must not be allowed out of the workplace.

P280

Wear protective gloves.

P302/352

IF ON SKIN: Wash with plenty of soap and water.

P333/313

If skin irritation or rash occurs: 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 by part. The final cured material is considered nonhazardous.

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

Hazardous Ingredients ¹	% Wt.	CAS No.	GHS Classification
Epoxy resin (number average molecular weight <= 700)	1-2	1675-54-3 *	Eye Irrit. 2, H319 Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Chronic 2, H411
2,3-Epoxypropyl o-tolyl ether	0.1-0.5	2210-79-9	Muta. 2, H341 Skin Irrit. 2, H315 Skin Sens. 1A, H317 Aquatic Chronic 2, H411

Other ingredients:

Silica (Quartz)	80-90	14808-60-7	Not classified **
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* Alternative CAS No: 25068-38-6. ** Substance with a workplace exposure limit.
For full text of H-statements: see SECTION 16.

¹ Classified according to: 29 CFR 1910.1200, 1915, 1916, 1917, Mass. Right-to-Know Law (ch. 40, M.G.L..O. 111F), WHMIS 2015, Safe Work Australia, GHS

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

Inhalation: Not applicable

Skin contact: Remove contaminated clothing. Wash clothing before reuse. Wash skin with soap and water. Consult physician.

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.

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. See section 8.2.2 for recommendations on personal protective equipment.

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

May cause skin sensitization as evidenced by rashes or hives.

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, foam or water fog

Unsuitable extinguishing media: None known

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products: Carbon Monoxide, Carbon Dioxide and other toxic fumes.

Other hazards: None

5.3. Advice for firefighters

Cool exposed containers with water. 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**

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

6.2. Environmental Precautions

No special requirements.

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 ¹		ACGIH TLV ²		AUSTRALIA ES ³	
	ppm	mg/m ³	ppm	mg/m ³	ppm	mg/m ³
Epoxy resin (number average molecular weight <= 700)	N/A	N/A	N/A	N/A	N/A	N/A
2,3-Epoxypropyl o-tolyl ether	N/A	N/A	N/A	N/A	N/A	N/A
Silica (Quartz)	(resp.)	0.05	(resp.)	0.025	(resp.)	0.05
	(total)	30/(%SiO ₂ + 2)				

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**

If it is necessary to alter the final cured product such that dust may be generated, use adequate dust extraction or damp down. If exposure limits are exceeded, provide adequate ventilation.

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

Physical state	damp sand	pH	not applicable
Colour	beige	Kinematic viscosity	not applicable
Odour	sweet odor	Solubility in water	very slight
Odour threshold	not determined	Partition coefficient n-octanol/water (log value)	not applicable
Boiling point or range	not applicable	Vapour pressure @ 20°C	not determined
Melting point/freezing point	not applicable	Density and/or relative density	1.5 kg/l
% Volatile (by volume)	< 1	Weight per volume	12.3 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	128°C (263°F)	% Aromatics by weight	not applicable
Method	PM Closed Cup	Particle characteristics	no data available
Autoignition temperature	not applicable	Explosive properties	not applicable
Decomposition temperature	no data available	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

No dangerous reactions known under conditions of normal use.

10.4. Conditions to avoid

None

10.5. Incompatible materials

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

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

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

Acute toxicity -

Oral:

Based on available data on components, the classification criteria are not met.

Substance	Test	Result
Epoxy resin (number average molecular weight <= 700)	LD50, rat	> 5000 mg/kg
2,3-Epoxypropyl o-tolyl ether	LD50, rat	5800 mg/kg

Dermal:

Based on available data on components, the classification criteria are not met.

Substance	Test	Result
Epoxy resin (number average molecular weight <= 700)	LD50, rabbit	> 2000 mg/kg
2,3-Epoxypropyl o-tolyl ether	LD50, rabbit	> 2000 mg/kg

Inhalation:

Vapors generated at elevated temperatures and mist could cause respiratory irritation and pulmonary sensitization.

Substance	Test	Result
Epoxy resin (number average molecular weight <= 700)	LC50, rat, 5-8 h	No mortality at vapor saturation level
2,3-Epoxypropyl o-tolyl ether	LC50, rat, 4 h	No mortality at vapor saturation level
2,3-Epoxypropyl o-tolyl ether	LC50, rat, 4 h	6.09 mg/l (aerosol)

Skin corrosion/irritation:

Substance	Test	Result
Epoxy resin (number average molecular weight <= 700)	Skin irritation, rabbit	Moderate irritation
2,3-Epoxypropyl o-tolyl ether	Skin irritation, human experience	Severe irritation

Serious eye damage/irritation:

Substance	Test	Result
Epoxy resin (number average molecular weight <= 700)	Eye irritation, rabbit	Moderate irritation / Mild irritation

Respiratory or skin sensitisation:

May cause skin sensitization as evidenced by rashes or hives.

Substance	Test	Result
Epoxy resin (number average molecular weight <= 700)	Skin sensitization, guinea pig	Sensitizing
2,3-Epoxypropyl o-tolyl ether	Skin sensitization, human experience	Sensitizing

Germ cell mutagenicity:

2,3-Epoxypropyl o-tolyl ether is mutagenic (changes in genetic systems) in some laboratory tests. Epoxy resin (number average molecular weight <= 700): based on available data, the classification criteria are not met.

Carcinogenicity:

The International Agency for Research on Cancer (IARC) and the National Toxicology Program (NTP) have classified inhaled silica as a human carcinogen. The silica in this product does not separate from the mixture or in of itself become air-borne, therefore it does not present a hazard in normal use.

Reproductive toxicity:

Epoxy resin (number average molecular weight <= 700): based on available data, the classification criteria are not met. Prolonged and repeated exposure to 2,3-Epoxypropyl O-tolyl Ether may cause reproductive disorders (birth defects/sterility).

STOT – single exposure:

Epoxy resin (number average molecular weight <= 700): based on available data, the classification criteria are not met.

STOT – repeated exposure:

Epoxy resin (number average molecular weight <= 700): based on available data, the classification criteria are not met. 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.

Substance	Test	Result
Epoxy resin (number average molecular weight <= 700)	Sub-chronic NOAEL, oral, 90 days, rat, male / female (OECD 408)	50 mg/kg bw/day
Epoxy resin (number average molecular weight <= 700)	Sub-chronic NOAEL, dermal, 90 days, rat, male / female (OECD 411)	10 mg/kg bw/day
Epoxy resin (number average molecular weight <= 700)	Sub-chronic NOAEL, dermal, 90 days, mouse, male (OECD 411)	100 mg/kg bw/day

Aspiration hazard:

Based on available data, the classification criteria are not met.

Other information:

None

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

Not expected to be harmful to aquatic organisms.

12.2. Persistence and degradability

Epoxy resin (number average molecular weight \leq 700), 2,3-Epoxypropyl o-tolyl ether: not readily biodegradable.

12.3. Bioaccumulative potential

Epoxy resin (number average molecular weight \leq 700): log Kow = 2.64-3.8, low potential for bioaccumulation. 2,3-Epoxypropyl o-tolyl ether: log Kow = 2.5, low potential for bioaccumulation.

12.4. Mobility in soil

Damp sand. Slightly soluble in water. In determining environmental mobility, consider the product's physical and chemical properties (see Section 9).

12.5. Endocrine disrupting properties

This product does not contain any substances at levels of 0.1% or higher that are assessed as having endocrine disrupting properties with respect to non-target organisms, in accordance with the criteria in Regulations (EC) 1907/2006, (EU) 2017/2100 and (EU) 2018/605.

12.6. Other adverse effects

None known

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

Landfill sealed containers with a properly licensed 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: NOT APPLICABLE
TDG: NOT APPLICABLE
US DOT: NOT APPLICABLE

14.2. UN proper shipping name

ADG/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)

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

14.4. Packing group

ADG/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. Maritime transport in bulk according to IMO instruments

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. National regulations****US EPA SARA TITLE III****312 Hazards:****Chemicals subject to reporting requirements of Section 313 of EPCRA and of 40 CFR 372:**

Skin sensitization

None

TSCA: All chemical components are listed in the TSCA inventory.

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
Skin Sens. 1, H317	Calculation method

Relevant H-statements: H315: Causes skin irritation.
 H317: May cause an allergic skin reaction.
 H319: Causes serious eye irritation.
 H341: Suspected of causing genetic defects.
 H411: Toxic to aquatic life with long lasting effects.

Hazard pictogram names: Exclamation mark**Further information:** None**Date of last revision:** 27 July 2023

Changes to the SDS in this revision: Sections 1.2, 1.3, 2.1, 3.2, 4.1, 5.2, 5.3, 8.1, 9.1, 10.6, 11, 12.3, 12.5, 13, 15.1, 16.

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.