



SAFETY DATA SHEET

SECTION 1 PRODUCT AND COMPANY INFORMATION

Product Name(s): V4138 PART A
Product Code(s): V4138-1 Part A, V4138-Q Part A
Uses: HVAC vertical fire retardant coating and related.
Company: Controlled Release Technologies, Inc.
Address: 1016 Industry Drive; Shelby, NC 28152; USA
Telephone Number: (704) 487-0878 Fax Number: (704) 487-0877
Emergency Telephone Number: ChemTel Inc. 1- (800) 255-3924; + 01 (813) 248-0585 (International)
Date Issued: March 27, 2015 Date Revised: March 27, 2015

This SDS complies with the OSHA Hazard Communication Standard 29CFR1910.1200 as revised in May 2012 (GHS). It may not meet requirements in other countries.

SECTION 2 HAZARDS IDENTIFICATION

GHS Classification: **WARNING**
Mutagen (Category 2)
Eye Irritation (Category 2A)
Skin Irritation (Category 2)
Skin Sensitization (Category 1)
Aquatic Chronic Toxicity (Category 2)



GHS Hazard Statements: Suspected of causing genetic defects
Causes serious eye irritation
Causes skin irritation
May cause an allergic skin reaction
Toxic to aquatic life with long lasting effects

GHS Precautionary Statements: Prevention:
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Wear protective gloves/protective clothing/eye protection/face protection.
Wash hands/skin thoroughly after handling.
Avoid breathing mist/vapors/spray.
Contaminated work clothing must not be allowed out of the workplace.
Avoid release to the environment

Response:
If exposed or concerned: Get medical advice/attention.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If on skin: Wash with plenty of water/soap.
Take off contaminated clothing and wash it before reuse.
Wash contaminated clothing before reuse.
Collect spillage.

Storage:

Disposal:

SECTION 2 HAZARDS IDENTIFICATION

Store locked up.

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

GHS Assessment: Approximately 0% of this mixture consists of ingredient(s) of unknown acute toxicity.
 Approximately 0% of the mixture consists of ingredient(s) of unknown hazards to the aquatic environment.

SECTION 3 COMPOSITION / INGREDIENTS

Component	CAS Number	EC Number	Concentration
Aryl glycidyl ether	Proprietary	---	10 - 30%
Bisphenol-A-epichlorhydrin polymer	25068-38-6	500-033-5	70 - 90%

Trade Secret Claims: Specific chemical identity and/or exact percentage (concentration) of components has been withheld as a trade secret.

SECTION 4 FIRST AID MEASURES

First Aid - Eyes: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention, if irritation develops.

First Aid - Skin: In case of contact, immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention immediately if irritation or rash develops and/or persists. Wash contaminated clothing before reuse.

First Aid - Ingestion: If swallowed and feel unwell, call a physician or poison control center. DO NOT induce vomiting unless directed to do so by a physician or poison control center. If victim is fully conscious, give a cupful of water. Never give anything by mouth to an unconscious person.

First Aid - Inhalation: If respiratory symptoms or other symptoms of exposure develop, move victim away from source of exposure and into fresh air. If symptoms persist, seek immediate medical attention. If victim is not breathing, clear airway and immediately begin artificial respiration. If breathing difficulties develop, oxygen should be administered by qualified personnel. Seek immediate medical attention.

Important Symptoms / Effects – Acute and Delayed: Tissue redness/irritation, rash.

Advice to Physician: Treat symptomatically.

SECTION 5 FIRE FIGHTING MEASURES

Extinguishing Media: Treat surrounding material. Water spray, dry chemical, carbon dioxide, or foam is recommended. Carbon dioxide can displace oxygen. Use caution when applying carbon dioxide in confined spaces.

Specific Hazards: This product is not combustible. This product may give rise to hazardous vapors in a fire. Vapors/fumes may be irritating, corrosive and/or toxic.

Protective equipment and procedures for fire-fighters: Wear full protective clothing and self-contained breathing apparatus.

Additional Advice: None.

SECTION 6 ACCIDENTAL RELEASE MEASURES

- Spill Procedures: Wipe up spills with an absorbent towel/material and transfer into suitable containers for recovery or disposal. Finally clean up residual with an appropriate solvent (e.g. acetone), as this product is not soluble in water.
- Personal Precautions: Wear suitable protective clothing.
- Environmental Precautions: Prevent the material from entering drains or water courses. Do not discharge directly to a water source. Advise Authorities if spillage has entered watercourse or sewer or has contaminated soil or vegetation.

SECTION 7 HANDLING AND STORAGE

- Handling: Wear appropriate personal protection (See Section 8) when handling this material. The work area must be equipped with a safety shower and eye wash station. If exposed to the solution, avoid contact with skin and eyes. Wash thoroughly after handling solution.
- Storage: Keep container(s) tightly closed. Use and store this material at temperatures between 15.5 and 26.7°C (60-80°F) away from heat, direct sunlight and hot metal surfaces. Keep from freezing. Keep away from any incompatible materials (see Section 10).
- Additional Advice: Store in original container. Store as directed by the manufacturer.

SECTION 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

- Occupational Exposure Standards: Exposure limits are listed below, if they exist.
- Aryl glycidyl ether: None.
- Bisphenol-A-epichlorhydrin polymer: None.
- Engineering Control Measures: Engineering methods to prevent or control exposure are preferred. Methods include process or personnel enclosure, mechanical ventilation (local exhaust), and control of process conditions.
- Respiratory Protection: A NIOSH certified air purifying respirator may be used under conditions where airborne concentrations are expected to exceed exposure limits.
- Hand Protection: The use of gloves impervious to the specific material handled is advised to prevent skin contact, possible irritation and skin damage (see glove manufacturer literature for information on permeability).
- Eye Protection: Approved eye protection (safety glasses with side-shields or goggles) to safeguard against potential eye contact, irritation, or injury is recommended. Depending on conditions of use, a face shield may be necessary.
- Body Protection: Impervious clothing should be worn as needed to prevent skin contact.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

- Physical State: Liquid
- Color: Colorless
- Odor: Characteristic
- Odor Threshold: Not available.
- pH: Not available.
- Melting Point/Range (°C/°F): Not available.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point/Range (°C/°F):	> 120°C / 248°F
Flash Point (PMCC) (°C/°F):	Not flammable.
Evaporation Rate:	Not available.
Flammability / Explosivity Limits in Air (%):	Not available.
Vapor Pressure:	< 2 mmHg
Vapor Density (Air = 1):	Not available.
Relative Density:	1.14 (25°C)
Solubility in Water:	Insoluble.
Partition Coefficient:	Not available.
Autoignition Temperature (°C/°F):	Not available.
Decomposition Temperature (°C/°F):	Not available.
Viscosity:	Not available.
Explosive Properties:	None.
Oxidizing Properties:	None.
Volatile Organic Content (VOC) (g/l):	ca. 1140 g/l (as defined by 40CFR51.100)

SECTION 10 STABILITY AND REACTIVITY

Reactivity:	Product will undergo exothermic reaction at elevated temperatures (>100°C).
Stability:	Stable under normal storage conditions.
Hazardous Polymerization:	Will not occur on its own. Heating in bulk or in the presence of excess aliphatic amine curing agent may result in excessive heat generation, which in certain situations may be uncontrollable.
Conditions to Avoid:	Contact with incompatible materials, excessive heat.
Incompatibilities:	Oxidizing agents, strong bases.
Hazardous Decomposition Products:	Oxides of carbon, aliphatic and aromatic compounds, toxic by-products.

SECTION 11 TOXICOLOGICAL INFORMATION

If available, toxicity data for the product is given; otherwise component data is listed.

Acute Toxicity:	This product is not expected to be appreciably toxic. (Aryl glycidyl ether) Oral LD50 (rat) 4000 mg/kg; Dermal LD50 (rat) > 2.16 g/kg; Inhalation LC50 (rat) >6.1 ppm (4 hr) (Bisphenol-A-epichlorhydrin polymer) Oral LD50 (rat) 30,000 mg/kg; Dermal LD50 (rat) >1200 mg/kg
Skin Corrosion / Irritation:	The product is expected to be irritating to the skin. (Aryl glycidyl ether) Moderately to severely irritating to skin (rabbits). (Bisphenol-A-epichlorhydrin polymer) Irritating to skin.
Serious Eye Damage / Irritation:	The product is expected to be irritating to the eyes. (Aryl glycidyl ether) Slightly irritating to eyes (rabbit) (Bisphenol-A-epichlorhydrin polymer) Irritating to eyes.
Respiratory or Skin Sensitization:	The product is expected to be dermally sensitizing. (Aryl glycidyl ether) Sensitization observed in animal and human patch

SECTION 11 TOXICOLOGICAL INFORMATION

	testing. (Bisphenol-A-epichlorhydrin polymer) Potentially sensitizing to skin.
Mutagenicity:	This product may be mutagenic. (Aryl glycidyl ether) Limited evidence of mutagenic activity by Ames testing. Unscheduled DNA synthesis was increased up to 100 ppm. At 1000 ppm unscheduled DNA synthesis was reduced. Micronucleus tests in mice showed no genotoxic effect. (Bisphenol-A-epichlorhydrin polymer) Equivocal evidence of mutagenicity by in vitro and in vivo test systems.
Carcinogenicity:	This product is not expected to be carcinogenic. (Aryl glycidyl ether) No data. (Bisphenol-A-epichlorhydrin polymer) No evidence of carcinogenic activity in mice and rats by dermal application.
Reproductive / Developmental Toxicity:	This product is not expected to be developmentally harmful. (Aryl glycidyl ether) No data. (Bisphenol-A-epichlorhydrin polymer) Resins based on the diglycidyl ether of bisphenol A (DGEBCA) did not cause birth defects or other adverse effects on the fetus when pregnant rabbits were exposed by skin contact or when pregnant rats or rabbits were exposed orally. In animal studies, DGEBCA did not interfere with reproduction.
Chronic/Subchronic Toxicity: Specific Target Organ/Systemic Toxicity – Single Exposure:	(Aryl glycidyl ether) No data. (Bisphenol-A-epichlorhydrin polymer) No data.
Chronic/Subchronic Toxicity: Specific Target Organ/Systemic Toxicity – Repeated Exposure:	(Aryl glycidyl ether) No data. (Bisphenol-A-epichlorhydrin polymer) Repeated exposures to low molecular weight epoxy resins of this type are not anticipated to cause any significant adverse effects.
Aspiration Hazard:	This product is not expected to be an aspiration hazard.
Additional Information:	None.

SECTION 12 ECOLOGICAL INFORMATION

If available, ecological data for the product is given; otherwise component data is listed.

Acute Ecotoxicity:	This product may be toxic to aquatic species. (Aryl glycidyl ether) LC50 (fish) 1-10 mg/l; EC50 (freshwater invertebrates) 1-10 mg/l; EC50 (algae) >100 mg/l (Bisphenol-A-epichlorhydrin polymer) LC50 (Rainbow trout) 1.5 mg/l/96 hr; LC50 (Zebra fish) 2.4 mg/l/96 hr; EC50 (Daphnia magna) 3.6 mg/l/24 hr.
Mobility:	(Aryl glycidyl ether) No data. (Bisphenol-A-epichlorhydrin polymer) Epoxy resins will have low soil mobility. In water, epoxy resins will settle and remain in sediment.
Persistence/Degradability:	(Aryl glycidyl ether) Not readily biodegradable (Bisphenol-A-epichlorhydrin polymer) Not readily biodegradable (12% in 28 days).
Bioaccumulation:	(Aryl glycidyl ether) An estimated BCF of 12 suggests the potential for bioconcentration in aquatic organisms is low. (Bisphenol-A-epichlorhydrin polymer) Not expected to bioaccumulate significantly.
Other adverse effects:	None.

SECTION 13 DISPOSAL CONSIDERATION

Environmental precautions:	Prevent the material from entering drains or water courses. Do not discharge directly to a water source. Advise Authorities if spillage has entered watercourse or sewer or has contaminated soil or vegetation.
Product Disposal:	Dispose in accordance with all local, state (provincial), and federal regulations. Under RCRA, it is the responsibility of the product's user to determine at the time of disposal, whether the product meets RCRA criteria for hazardous waste. This is because the product uses, transformations, mixtures, processes, etc. may render the resulting materials hazardous.
Container Disposal:	Do not remove label until container is thoroughly cleaned. Empty containers may contain hazardous residues. This material and its container must be disposed of in a safe way.

SECTION 14 TRANSPORT INFORMATION

DOT Proper Shipping Name:	Not regulated
UN Number:	None.
UN Class:	None.
UN Packaging Group:	None.
Reportable Quantity:	None.
Marine Pollutant:	This product does not contain a listed marine pollutant; however, this product will meet the criteria of a marine pollutant under the IMDG Code.

Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. Consult current IATA Regulations prior to shipping by air.

SECTION 15 REGULATORY INFORMATION

US Toxic Substance Control Act:	All components of this product are in compliance with the inventory listing requirements of the U.S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.
Canadian Domestic Substance List:	All components of this product are listed on the Canadian Domestic List.
EU Existing Inventory of Chemical Substances:	All components of this product are in compliance with the inventory listing requirements of the E.U. Existing Inventory of Chemical Substances (EINECS). All components of this product have been pre-listed under REACH.
TSCA Sec.12(b) Export Notification:	This product does not contain a chemical at or above de minimis concentrations which requires reporting.
Canadian WHMIS Classification:	D.2.A, D.2.B This product has been classified in accordance with the hazard criteria of the CPR and the SDS contains all of the information required by the CPR.
Massachusetts Right-To-Know:	This product does not contain materials subject to disclosure under the Massachusetts' Right-To-Know Law.
New Jersey Right-To-Know:	This product does not contain materials subject to disclosure under the New Jersey's Right-To-Know Law.
Pennsylvania Right-To-Know:	This product does not contain materials subject to disclosure under the Pennsylvania's Right-To-Know Law.
California Proposition 65:	This product does not contain materials which the State of California has

SECTION 15 REGULATORY INFORMATION

	found to cause cancer, birth defects or other reproductive harm.
SARA TITLE III-Section 311/312 Categorization (40 CFR 370):	Immediate (acute), delayed (chronic) hazard
SARA TITLE III-Section 313 (40 CFR 372):	This product does not contain materials which are listed in Section 313 at or above de minimis concentrations.
CERCLA Hazardous Substance (40 CFR 302)	This product does not contain materials subject to reporting under CERCLA and Section 304 of EPCRA
Water Hazard Class (WGK):	This product is water-endangering (WGK=2).
Other Chemical Inventories:	Australia (AICS): All components listed.
	China (IECSC): All components listed.
	Japan (ENCS): All components listed.
	Korea (KCI): All components listed.
	Philippines (PICCS): All components listed.

SECTION 16 OTHER INFORMATION

NFPA Rating - HEALTH:	2		
NFPA Rating - FIRE:	1		
NFPA Rating - REACTIVITY:	1		
NFPA Rating - SPECIAL:	NONE		
SDS Date Issued:	March 27, 2015		
SDS Current Version:	1.0	Version Date:	March 27, 2015
SDS Revision History:	v1.0 Initial version.		
Abbreviations:	GHS: Globally Harmonized System of Classification and Labeling of Chemicals		
	CAS#: Chemical Abstract Services Number		
	ACGIH: American Conference of Governmental Industrial Hygienists		
	OSHA: Occupational Safety and Health Administration		
	NFPA: National Fire Protection Association		
	DOT: US Department of Transportation		
	RCRA: US Resource Conservation and Recovery Act		
	TLV: Threshold Limit Value		
	TWA: Time-Weighted Average		
	PEL: Permissible Exposure Limit		
	STEL: Short Term Exposure Limit		
	WEEL: Workplace Environmental Exposure Levels		
	AIHA: American Industrial Hygiene Association		
	NTP: National Toxicology Program		
	IARC: International Agency for Research on Cancer		
	R: Risk		
	S: Safety		
	LD50: Lethal Dose 50%		
	LC50: Lethal Concentration 50%		
	EC50: Effective Concentration 50%		
	BCF: Bioconcentration Factor		
	BOD: Biological Oxygen Demand		
	Koc: Soil Organic Carbon Partition Coefficient.		
	Tlm: Median Tolerance Limit		
Key References:	United States National Library of Medicine's TOXNET		
	Patty's Toxicology, 5 th Edition		

SECTION 16 OTHER INFORMATION

European Commission's Institute for Health and Consumer Protection
American Conference of Governmental Industrial Hygienists
International Agency for Research on Cancer
United States National Toxicology Program
United States Occupational Safety and Health Administration
United States Department of Transportation
Supplier Material Safety Data Sheets

Disclaimer:

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