

# Safety Data Sheet



Revision Number: 002.0

Issue date: 02/18/2020

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product name:** ARMSTRONG A-661 C RESIN

**Product type/use:** Epoxy resin

**Restriction of Use:** None identified

**Company address:**

Henkel Corporation  
One Henkel Way  
Rocky Hill, Connecticut 06067

**IDH number:** 2033634

**Item number:** 2029837\_1960687

**Region:** United States

**Contact information:**

Telephone: +1 (860) 571-5100  
MEDICAL EMERGENCY Phone: Poison Control Center  
1-877-671-4608 (toll free) or 1-303-592-1711  
TRANSPORT EMERGENCY Phone: CHEMTREC  
1-800-424-9300 (toll free) or 1-703-527-3887  
Internet: www.henkelna.com

## 2. HAZARDS IDENTIFICATION

### EMERGENCY OVERVIEW

**WARNING:** CAUSES SKIN IRRITATION.  
MAY CAUSE AN ALLERGIC SKIN REACTION.  
CAUSES SERIOUS EYE IRRITATION.

HAZARD CLASS	HAZARD CATEGORY
SKIN IRRITATION	2
EYE IRRITATION	2A
SKIN SENSITIZATION	1

### PICTOGRAM(S)



### Precautionary Statements

**Prevention:** Avoid breathing vapors, mist, or spray. Wash affected area thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves, eye protection, and face protection.

**Response:** IF ON SKIN: Wash with plenty of water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If skin irritation or rash occurs: Get medical attention. If eye irritation persists: Get medical attention. Take off contaminated clothing.

**Storage:** Not prescribed

**Disposal:** Dispose of contents and/or container according to Federal, State/Provincial and local governmental regulations.

Classification complies with OSHA Hazard Communication Standard (29 CFR 1910.1200) and is consistent with the provisions of the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

See Section 11 for additional toxicological information.

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Component(s)	CAS Number	Percentage*
Aluminum	7429-90-5	10 - 30
Epichlorohydrin-4,4'-isopropylidene diphenol resin	25068-38-6	10 - 30
Tetraglycidyl diaminodiphenylmethane	28768-32-3	10 - 30
Glass, oxide, chemicals	65997-17-3	10 - 30

Cyclohexanol, 4,4'-(1-methylethylidene)bis-, polymer with (chloromethyl)oxirane	30583-72-3	5 - 10
Silica, amorphous, fumed, crystal-free	112945-52-5	1 - 5

\* Exact percentages may vary or are trade secret. Concentration range is provided to assist users in providing appropriate protections.

## 4. FIRST AID MEASURES

<b>Inhalation:</b>	Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. If symptoms develop and persist, get medical attention.
<b>Skin contact:</b>	Immediately flush skin with plenty of water (using soap, if available). Remove contaminated clothing and footwear. If symptoms develop and persist, get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.
<b>Eye contact:</b>	Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.
<b>Ingestion:</b>	DO NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention.
<b>Symptoms:</b>	See Section 11.

## 5. FIRE FIGHTING MEASURES

<b>Extinguishing media:</b>	Foam, dry chemical or carbon dioxide.
<b>Special firefighting procedures:</b>	Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear.
<b>Unusual fire or explosion hazards:</b>	Aluminium reacts exothermically with water, acids, and alkalis to produce hydrogen. Closed containers may rupture (due to build up of pressure) when exposed to extreme heat. In case of fire, keep containers cool with water spray.
<b>Hazardous combustion products:</b>	Oxides of carbon. Oxides of nitrogen. Aldehydes. Phenolics. Toxic fumes. Irritating vapors.

## 6. ACCIDENTAL RELEASE MEASURES

Use personal protection recommended in Section 8, isolate the hazard area and deny entry to unnecessary and unprotected personnel.

<b>Environmental precautions:</b>	Do not allow product to enter sewer or waterways.
<b>Clean-up methods:</b>	Ensure adequate ventilation. Wear appropriate personal protective equipment. Refer to Section 8 "Exposure Controls / Personal Protection" prior to clean up. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Scrape up spilled material and place in a closed container for disposal.

## 7. HANDLING AND STORAGE

<b>Handling:</b>	Remove all sources of ignition. Prevent contact with eyes, skin and clothing. Do not breathe vapor and mist. Wash thoroughly after handling. Use only with adequate ventilation. Keep container closed.
<b>Storage:</b>	Keep container tightly closed and in a cool, well-ventilated place away from incompatible materials. Keep away from heat, spark and flame. Protect from direct sunlight.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Employers should complete an assessment of all workplaces to determine the need for, and selection of, proper exposure controls and protective equipment for each task performed.

Hazardous Component(s)	ACGIH TLV	OSHA PEL	AIHA WEEL	OTHER
Aluminum	1 mg/m3 TWA Respirable fraction.	15 mg/m3 PEL (as Al) Total dust. 5 mg/m3 PEL (as Al) Respirable fraction. 15 MPPCF TWA Respirable fraction. 50 MPPCF TWA Total dust. 5 mg/m3 TWA Respirable fraction. 15 mg/m3 TWA Total dust.	None	None
Epichlorohydrin-4,4'-isopropylidene diphenol resin	None	None	None	None
Tetraglycidyl diaminodiphenylmethane	None	None	None	None
Glass, oxide, chemicals	None	None	None	None
Cyclohexanol, 4,4'-(1-methylethylidene)bis-, polymer with (chloromethyl)oxirane	None	None	None	None
Silica, amorphous, fumed, crystal-free	10 mg/m3 TWA Inhalable dust. 3 mg/m3 TWA Respirable fraction.	20 MPPCF TWA 0.8 mg/m3 TWA	None	None

### Engineering controls:

Use local ventilation if general ventilation is insufficient to maintain vapor concentration below established exposure limits.

### Respiratory protection:

Use a NIOSH approved air-purifying respirator with an organic vapor cartridge.

### Eye/face protection:

Safety goggles or safety glasses with side shields. Full face protection should be used if the potential for splashing or spraying of product exists. Safety showers and eye wash stations should be available.

### Skin protection:

Use chemical resistant, impermeable clothing including gloves and either an apron or body suit to prevent skin contact.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical state:</b>	Viscous, Liquid
<b>Color:</b>	Gray
<b>Odor:</b>	Mild
<b>Odor threshold:</b>	Not available.
<b>pH:</b>	Not available.
<b>Vapor pressure:</b>	Not determined
<b>Boiling point/range:</b>	275 °C (527°F) Approximately
<b>Melting point/ range:</b>	Not available.
<b>Specific gravity:</b>	1.42
<b>Vapor density:</b>	Not available.
<b>Flash point:</b>	> 93.33 °C (> 199.99 °F) ASTM D3278 Setaflash Closed Cup
<b>Flammable/Explosive limits - lower:</b>	Not available.
<b>Flammable/Explosive limits - upper:</b>	Not available.
<b>Autoignition temperature:</b>	Not available.
<b>Flammability:</b>	Not applicable
<b>Evaporation rate:</b>	Not available.
<b>Solubility in water:</b>	Insoluble
<b>Partition coefficient (n-octanol/water):</b>	Not available.
<b>VOC content:</b>	Not available.
<b>Viscosity:</b>	Not available.
<b>Decomposition temperature:</b>	Not available.

## 10. STABILITY AND REACTIVITY

<b>Stability:</b>	Stable under normal conditions of storage and use.
<b>Hazardous reactions:</b>	None under normal processing. Polymerization may occur at elevated temperature or in the presence of incompatible materials.
<b>Hazardous decomposition products:</b>	Oxides of carbon. Oxides of nitrogen. Aldehydes. Phenolics. Toxic fumes. Irritating vapors.
<b>Incompatible materials:</b>	Oxidizing agents. Strong acids and strong bases. Strong alkalis. Amines. Caustics. Nitrates. Water.
<b>Reactivity:</b>	Not available.
<b>Conditions to avoid:</b>	Keep away from heat, ignition sources and incompatible materials. Protect from direct sunlight. Avoid strong oxidizing agents.

## 11. TOXICOLOGICAL INFORMATION

**Relevant routes of exposure:** Skin, Inhalation, Eyes

### Potential Health Effects/Symptoms

<b>Inhalation:</b>	May cause dizziness, incoordination, headache, nausea, and vomiting. Inhalation of vapors or mists of the product may be irritating to the respiratory system.
<b>Skin contact:</b>	Causes skin irritation. May cause allergic skin reaction.
<b>Eye contact:</b>	Causes serious eye irritation.
<b>Ingestion:</b>	Not expected under normal conditions of use. May cause gastrointestinal tract irritation if swallowed.

Hazardous Component(s)	LD50s and LC50s	Immediate and Delayed Health Effects
Aluminum	None	Central nervous system, Irritant, Lung
Epichlorohydrin-4,4'-isopropylidene diphenol resin	None	Allergen, Irritant
Tetraglycidyl diaminodiphenylmethane	None	Allergen, Blood, Central nervous system, Gastrointestinal, Irritant, Kidney, Liver, Mutagen, Nervous System
Glass, oxide, chemicals	None	Allergen, Respiratory
Cyclohexanol, 4,4'-(1-methylethylidene)bis-, polymer with (chloromethyl)oxirane	None	Irritant, Allergen
Silica, amorphous, fumed, crystal-free	None	Nuisance dust

Hazardous Component(s)	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Aluminum	No	No	No
Epichlorohydrin-4,4'-isopropylidene diphenol resin	No	No	No
Tetraglycidyl diaminodiphenylmethane	No	No	No
Glass, oxide, chemicals	No	No	No
Cyclohexanol, 4,4'-(1-methylethylidene)bis-, polymer with (chloromethyl)oxirane	No	No	No
Silica, amorphous, fumed, crystal-free	No	No	No

## 12. ECOLOGICAL INFORMATION

**Ecological information:** Not available.

## 13. DISPOSAL CONSIDERATIONS

Information provided is for unused product only.

<b>Recommended method of disposal:</b>	Follow all local, state, federal and provincial regulations for disposal.
<b>Hazardous waste number:</b>	It is the responsibility of the user to determine if an item is hazardous as defined in the Resource Conservation and Recovery Act (RCRA) at the time of disposal. Product uses, transformations, mixtures, processes, etc., may render the resulting material hazardous, under the criteria of ignitability, corrosivity, reactivity and toxicity characteristics of the Toxicity Characteristics Leaching Procedure (TCLP) 40 CFR 261.20-24.

## 14. TRANSPORT INFORMATION

The transport information provided in this section only applies to the material/formulation itself, and is not specific to any package/configuration.

### U.S. Department of Transportation Ground (49 CFR)

<b>Proper shipping name:</b>	Not regulated
<b>Hazard class or division:</b>	None
<b>Identification number:</b>	None
<b>Packing group:</b>	None

### International Air Transportation (ICAO/IATA)

<b>Proper shipping name:</b>	Environmentally hazardous substance, liquid, n.o.s. (Epoxy resin, Tetraglycidyl diaminodiphenylmethane)
<b>Hazard class or division:</b>	9
<b>Identification number:</b>	UN 3082
<b>Packing group:</b>	III

### Water Transportation (IMO/IMDG)

<b>Proper shipping name:</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxy resin, Tetraglycidyl diaminodiphenylmethane)
<b>Hazard class or division:</b>	9
<b>Identification number:</b>	UN 3082
<b>Packing group:</b>	III
<b>Marine pollutant:</b>	Epoxy resin, Tetraglycidyl diaminodiphenylmethane

## 15. REGULATORY INFORMATION

### United States Regulatory Information

<b>TSCA 8 (b) Inventory Status:</b>	All components are listed as active or are exempt from listing on the Toxic Substances Control Act (TSCA) inventory.
<b>TSCA 12 (b) Export Notification:</b>	None above reporting de minimis
<b>CERCLA/SARA Section 302 EHS:</b>	None above reporting de minimis.
<b>CERCLA/SARA Section 311/312:</b>	Immediate Health, Delayed Health
<b>CERCLA/SARA Section 313:</b>	This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (40 CFR 372). Aluminum (CAS# 7429-90-5).
<b>California Proposition 65:</b>	This product contains a chemical known in the State of California to cause cancer. This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

### Canada Regulatory Information

<b>CEPA DSL/NDSL Status:</b>	All components are listed on or are exempt from listing on the Canadian Domestic Substances List.
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## 16. OTHER INFORMATION

This safety data sheet contains changes from the previous version in sections: 2, 3, 8, 11

**Prepared by:** Product Safety and Regulatory Affairs

**Issue date:** 02/18/2020

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