# Safety Data Sheet

*Prepared in accordance with OSHA HCS (29 CFR 1910.1200)*

# AV-502-LV Injectable Bonding Epoxy LV (Part A)

## SECTION 1: IDENTIFICATION

**Product identifier:** AV-502-LV Injectable Bonding Epoxy LV (Part A)
**Other means of identification:** Crack injection epoxy resin
**Recommended use:** Resin component of a two-part injectable bonding epoxy system.
**Restrictions on use:** For industrial and professional use only. Use only with the designated Part B hardener.
**Supplier:** Avanti International
822 Bay Star Blvd.
Webster, TX 77598
USA
Phone: 281-486-5600
Fax: 281-486-7300
www.avantigrout.com
**Emergency phone number:** CHEMTREC 1-800-424-9300 (U.S.)
CHEMTREC +1-703-741-5970 (International)

## SECTION 2: HAZARD(S) IDENTIFICATION

**Classification of the substance or mixture:**
*in accordance with paragraph (d)(1)(i) of OSHA HCS (29 CFR 1910.1200)*

| | |
|---|---|
| Eye irritation: | Category 2A |
| Skin irritation: | Category 2 |
| Skin sensitization: | Category 1 |

**Label elements**
**Signal word:** Warning
**Hazard pictogram:**

**Hazard statements:**

| | |
|---|---|
| H319 | Causes serious eye irritation. |
| H315 | Causes skin irritation. |
| H317 | May cause an allergic skin reaction. |

**Precautionary statements:**

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| P261 | Avoid breathing vapors. |
| P264 | Wash thoroughly after handling. |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection. |
| P302+P352 | IF ON SKIN: Wash with plenty of soap and water. |
| P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P333+P313 | If skin irritation or rash occurs: Get medical advice/attention. |
| P337+P313 | If eye irritation persists: Get medical advice/attention. |
| P501 | Dispose of contents/container in accordance with applicable federal, state, and local regulations. |

**Hazards not otherwise classified (HNOC):**
None known.

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

**Mixtures**
Chemical description: Mixture composed of additives and epoxy polymers
**Components:**
Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to §1910.1200, the product contains:

| Chemical Name | CAS No. | Concentration |
|---|---|---|
| bisphenol-A-(epichlorhydrin), epoxy resin (number average molecular weight ≤ 700) | 25068-38-6 | 75 - <100% |
| Trade Secret | | 10 - <25% |

## SECTION 4: FIRST-AID MEASURES

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| **General:** | Symptoms of exposure may be delayed. If exposure to the chemical product has occurred, or if symptoms persist or there is any doubt, seek medical attention and provide the attending medical personnel with this SDS. |
| **If inhaled:** | This product does not contain substances classified as hazardous by inhalation. However, if symptoms occur, remove the affected person from the exposure area and move them to fresh air. Seek medical attention if symptoms worsen or persist. |
| **In case of skin contact:** | Remove contaminated clothing and footwear. Wash the affected skin thoroughly with plenty of soap and water. If skin irritation or a rash occurs, seek medical advice/attention. Wash contaminated clothing before reuse. |
| **In case of eye contact:** | Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not rub or close eyes. Remove contact lenses, if present and easy to do, and continue rinsing. Seek medical attention and provide the attending medical personnel with this SDS. |
| **If swallowed:** | Do not induce vomiting. If vomiting occurs spontaneously, keep the affected person's head lowered to reduce the risk of aspiration. Keep the person at rest. Rinse the mouth and throat thoroughly with water. |
| **Most important symptoms/effects, acute and delayed:** | Acute effects may include skin irritation, serious eye irritation, and, if swallowed, throat irritation, abdominal pain, nausea, and vomiting. Exposure may also cause an allergic skin reaction, and symptoms may be delayed. See Sections 2 and 11 for additional information. |
| **Indication of immediate medical attention and special treatment needed, if necessary:** | Not applicable. |

## SECTION 5: FIRE-FIGHTING MEASURES

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| **Suitable extinguishing media:** | The product is non-flammable under normal conditions of storage, handling, and use. In the event of a fire, use multipurpose dry chemical (ABC) extinguishing media. |
| **Unsuitable extinguishing media:** | None identified. |
| **Specific hazards arising from the chemical:** | Combustion or thermal decomposition may produce hazardous decomposition products that can present a serious health risk. |
| **Special protective equipment and precautions for firefighters:** | Depending on the magnitude of the fire, firefighters should wear full protective clothing and self-contained breathing apparatus (SCBA). |
| **Additional provisions:** | As with any fire, avoid exposure to fire, smoke, fumes, and products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the affected area. Eliminate sources of ignition where it is safe to do so. Cool containers and tanks exposed to fire with water spray. Prevent contaminated firefighting water from entering drains, waterways, or the environment. |

## SECTION 6: ACCIDENTAL RELEASE MEASURES

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| **For non-emergency personnel:** | Stop or isolate the leak or spill if this can be done safely. Wear appropriate personal protective equipment (PPE) to prevent contact with the spilled product. See Section 8. Evacuate unnecessary personnel and keep unprotected persons away from the affected area. |
| **For emergency responders:** | Wear appropriate personal protective equipment. Keep unprotected personnel away from the affected area. See Section 8. |
| **Environmental precautions:** | This product is not classified as hazardous to the environment. Prevent the product from entering drains, sewers, surface water, or groundwater. |
| **Methods and materials for containment and cleaning up:** | For accidental releases exceeding an applicable reportable quantity (RQ) under 40 CFR 302, follow applicable reporting requirements and notify the National Response Center at 1-800-424-8802.<br>Prevent the product from entering drains, sewers, or waterways. Absorb the spill with sand or another suitable inert absorbent material. **Do not use sawdust or other combustible absorbents.** Collect the absorbed material in appropriate containers and manage or dispose of it in accordance with applicable federal, state, and local regulations. See Section 13 for disposal considerations. |
| **Small spills in water:** | Contain the spill using barriers or similar containment equipment, where practicable. Use suitable absorbent materials for collection and manage the resulting waste in accordance with applicable regulations. |

## SECTION 6: ACCIDENTAL RELEASE MEASURES

**Large spills in water:** Where practicable, contain the spill in open water using barriers or similar containment equipment. If containment is not possible, control the spread of the product and recover it using suitable mechanical means. Consult qualified experts before using dispersants and obtain any required approvals before use. Manage recovered material and waste in accordance with applicable regulations.

## SECTION 7: HANDLING AND STORAGE

**Precautions for safe handling:**

**General precautions:** Handle in accordance with good industrial hygiene and safety practices. Use appropriate safe-handling practices when manually handling containers. Maintain good housekeeping and dispose of waste using appropriate methods. See Section 6.

**Advice on protection against fire and explosion:** The product is non-flammable under normal conditions of storage, handling, and use. Transfer the product slowly to minimize the generation of electrostatic charges. Keep away from conditions and incompatible materials identified in Section 10.

**General occupational hygiene:** Do not eat or drink while handling the product. Wash hands thoroughly after handling.

**Environmental precautions:** Keep suitable absorbent material readily available for spill response. See Section 6.

**Conditions for safe storage, including any incompatibilities:**

**General storage conditions:** Store in a cool, dry area with containers tightly closed. Protect from sources of heat and radiation and prevent the accumulation of static electricity. Store away from food and food-contact materials. See Section 10 for information on incompatible materials.

**Specific storage requirements:** Minimum temperature: 60°F (16°C)
Maximum temperature: 80°F (27°C)
Maximum storage time: 12 months

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

**Control Parameters:** No applicable occupational exposure limits have been established for the substances contained in this product.

**Appropriate engineering controls:** Provide adequate general ventilation. Use local exhaust ventilation if general ventilation is insufficient to control airborne concentrations. Provide appropriate eyewash and emergency washing facilities where warranted by the conditions of use and workplace hazard assessment.

**Individual protection measures:** Select personal protective equipment (PPE) based on the conditions of use and a workplace hazard assessment. PPE should be selected, used, maintained, and replaced in accordance with the manufacturer's instructions and applicable OSHA requirements. Conduct workplace hazard assessments in accordance with 29 CFR 1910.132.

**Respiratory protection:** If respiratory protection is required based on workplace conditions, exposure conditions, or a hazard assessment, use an appropriate NIOSH-approved respirator selected for the contaminants and exposure conditions. Respirators must be used in accordance with the manufacturer's instructions and OSHA's Respiratory Protection Standard, 29 CFR 1910.134.

**Skin/hand protection:** Wear chemical-resistant protective gloves when there is a potential for skin contact. Replace gloves if they show signs of damage or deterioration. Select gloves based on the product, duration of exposure, conditions of use, and the glove manufacturer's information regarding material compatibility, breakthrough time, and limitations. Use appropriate hand protection in accordance with 29 CFR 1910.138.

**Eye/face protection:** Wear safety glasses with side shields during routine handling. Where there is a risk of splashing, wear chemical splash goggles. Use additional face protection where warranted by the conditions of use. Maintain protective eyewear in accordance with the manufacturer's instructions. Use appropriate eye and face protection in accordance with 29 CFR 1910.133.

**Body protection:** Wear appropriate work clothing and slip-resistant footwear. Replace protective clothing or footwear if damaged or deteriorated.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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|---|---|
| **Physical state:** | Liquid |
| **Color:** | Pale yellow to straw-colored |
| **Odor:** | Sweet |
| **Odor threshold:** | Not applicable* |
| **Melting point/freezing point:** | Not applicable* |

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

| | |
|---|---|
| **Boiling point:** | >392°F |
| **Flammability (solid, gas):** | Not classified as flammable |
| **Lower flammability limit:** | Not applicable* |
| **Upper flammability limit:** | Not applicable* |
| **Flash Point:** | >302°F |
| **Autoignition temperature:** | Not applicable* |
| **Decomposition temperature:** | Not applicable* |
| **pH:** | Not applicable* |
| **Kinematic viscosity:** | Not applicable* |
| **Solubility in water:** | Not applicable* |
| **Partition coefficient n-octanol/water:** | Not applicable* |
| **Vapor pressure:** | 7.532E-2 Pa at 68°F; 1.74 Pa at 122°F |
| **Evaporation rate:** | Not applicable* |
| **Relative density:** | 1.15 at 68°F |
| **Relative vapor density:** | Not applicable* |
| **Particle characteristics:** | Not applicable (liquid) |

*Not applicable due to the nature of the product or because the property is not relevant to its hazard characteristics.

## SECTION 10: STABILITY AND REACTIVITY

| | |
|---|---|
| **Reactivity:** | No hazardous reactions are expected under recommended conditions of storage, handling, and use. |
| **Chemical stability:** | Stable under recommended conditions of storage, handling, and use. |
| **Possibility of hazardous reactions:** | No hazardous reactions are expected under recommended conditions of storage, handling, and use. |
| **Conditions to avoid:** | Avoid excessive heat, radiation, and conditions that may promote the accumulation of static electricity. Avoid temperatures outside the recommended storage range specified in Section 7. |
| **Incompatible materials:** | Avoid contact with strong acids and strong bases. |
| **Hazardous decomposition products:** | Under normal conditions of storage and use, hazardous decomposition products are not expected. Thermal decomposition or combustion may produce carbon monoxide (CO), carbon dioxide ($CO_2$), and other organic compounds. |

## SECTION 11: TOXICOLOGICAL INFORMATION

Experimental toxicological data for the product as a whole are not available. The information below is based on available substance-specific toxicological data and mixture classification information provided by the manufacturer.

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|---|---|
| **Information on likely routes of exposure:** | The likely routes of exposure include ingestion, inhalation, skin contact, and eye contact. |
| **Ingestion:** | **Acute toxicity:** Based on available data, the classification criteria are not met.<br>**Irritation:** Ingestion of a significant amount may cause throat irritation, abdominal pain, nausea, and vomiting. |
| **Inhalation:** | **Acute toxicity:** Based on available data, the classification criteria are not met.<br>**Respiratory irritation:** Based on available data, the classification criteria are not met. |
| **Skin contact:** | Causes skin irritation. |
| **Eye contact:** | Causes serious eye irritation. |
| **Carcinogenicity:** | Based on available data, the classification criteria are not met. |
| **IARC:** | Not applicable. |
| **NTP:** | Not applicable. |
| **OSHA:** | Not applicable. |
| **Germ cell mutagenicity:** | Based on available data, the classification criteria are not met. |
| **Reproductive toxicity:** | Based on available data, the classification criteria are not met. |
| **Respiratory sensitization:** | Based on available data, the classification criteria are not met. |
| **Skin sensitization:** | May cause an allergic skin reaction. |
| **Specific target organ toxicity (STOT) – single exposure:** | Based on available data, the classification criteria are not met. |
| **Specific target organ toxicity (STOT) – repeated exposure:** | Based on available data, the classification criteria are not met. |
| **Aspiration hazard:** | Based on available data, the classification criteria are not met. |
| **Interactive effects:** | No applicable information available. |
| **Other information:** | Not applicable. |

**Specific toxicology information on the substances:**

| Substance | Test | Concentration | Route | Species |
|---|---|---|---|---|
| Trade Secret | LD50 | 4500 mg/kg | Oral | Rat |

## SECTION 12: ECOLOGICAL INFORMATION

Experimental ecotoxicological data for the product as a whole are not available. Based on available data, the product does not meet the classification criteria for environmental hazards. Substance-specific ecotoxicological information is provided below.

**Ecotoxicity:**

**Acute aquatic toxicity:**

| Substance | Test | Concentration | Organism |
|---|---|---|---|
| reaction product: bisphenol-A-(epichlorhydrin), epoxy resin (number average molecular weight ≤ 700) CAS: 25068-38-6 | LC50 | >1-10 mg/L (96 h) | Fish |
| | EC50 | >1-10 mg/L (48 h) | Crustaceans |
| | EC50 | >1-10 mg/L (72 h) | Algae |

**Chronic aquatic toxicity:**

| Substance | Test | Concentration | Organism |
|---|---|---|---|
| Reaction product: bisphenol-A-(epichlorhydrin), epoxy resin (number average molecular weight ≤ 700) CAS: 25068-38-6 | NOEC | 0.3 mg/L | Daphnia magna |

**Persistence and degradability:**

| Substance | Test Concentration | Test Period | Biodegradation |
|---|---|---|---|
| Reaction product: bisphenol-A-(epichlorhydrin), epoxy resin (number average molecular weight ≤ 700) CAS: 25068-38-6 | 100 mg/L | 28 days | 0% |

**Bioaccumulative potential:**

| Substance | BCF | log Pow | Bioaccumulation potential |
|---|---|---|---|
| Reaction product: bisphenol-A-(epichlorhydrin), epoxy resin (number average molecular weight ≤ 700) CAS: 25068-38-6 | 4 | 2.8 | Low |

**Mobility in soil:** Not applicable
**Results of PBT and vPvB assessment:** Not applicable
**Other adverse effects:** No additional information available.

## SECTION 13: DISPOSAL CONSIDERATIONS

**Disposal methods:** It is the responsibility of the waste generator to determine whether the waste is hazardous based on applicable hazardous waste characteristics and listings.

**Waste management:** Manage and dispose of the product, residues, and contaminated materials in accordance with applicable federal, state, and local regulations. Do not discharge into drains, sewers, or waterways.
Waste management and disposal should comply with applicable requirements of the Resource Conservation and Recovery Act (RCRA) and U.S. Environmental Protection Agency (EPA) regulations.
See Section 6 for accidental release measures.

**Applicable waste regulations:** Refer to applicable federal, state, and local waste management requirements. State and local requirements may be more stringent than federal requirements.

## SECTION 14: TRANSPORT INFORMATION

**U.S. DOT (49 CFR) – Land Transport:**

**UN number:** UN3082
**UN proper shipping name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(reaction product: bisphenol A-(epichlorohydrin), epoxy resin [number-average molecular weight ≤700])
**Transport hazard class(es):** 9
**Label:** 9
**Packing group:** III
**Marine pollutant:** Yes
**Limited quantity:** 5 L
**U.S. domestic transport:** Except when all or part of the transportation is by vessel, requirements specific to marine pollutants do not apply to non-bulk packages transported by motor vehicle, rail car, or aircraft, in accordance with 49 CFR 171.4.

**IMDG – Sea Transport:**

**UN number:** UN3082
**UN proper shipping name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(reaction product: bisphenol A-(epichlorohydrin), epoxy resin [number-average molecular weight ≤700])

## SECTION 14: TRANSPORT INFORMATION

| | |
|---|---|
| **Transport hazard class(es):** | 9 |
| **Labels:** | 9 |
| **Packing group:** | III |
| **Marine pollutant:** | Yes |
| **Special regulations:** | 335, 969, 274 |
| **EmS Codes:** | F-A, S-F |
| **Limited quantity:** | 5 L |
| **Segregation group:** | Not applicable |

**IATA/ICAO – Air transport:**

| | |
|---|---|
| **UN number:** | UN3082 |
| **UN proper shipping name:** | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol A-(epichlorohydrin), epoxy resin [number-average molecular weight ≤ 700]) |
| **Transport hazard class(es):** | 9 |
| **Labels:** | 9 |
| **Packing group:** | III |

**Additional Transport Information**

| | |
|---|---|
| **Special precautions for user:** | See Sections 7 and 10 for information on safe handling, storage conditions, conditions to avoid, and incompatible materials. |
| **Transport in bulk (according to IMO instruments):** | Not applicable |

## SECTION 15: REGULATORY INFORMATION

**Safety, health, and environmental regulations specific to the product:**

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|---|---|
| California Labor Code – Hazardous Substances List: | Not applicable |
| California Proposition 65 – Reproductive harm: | Not applicable |
| California Proposition 65 – Cancer: | Not applicable |
| Canada-Domestic Substances List (DSL): | Reaction product: bisphenol A-(epichlorohydrin), epoxy resin (number-average molecular weight ≤ 700) (CAS 25068-38-6); Trade Secret (Not applicable) |
| CERCLA: | Not applicable |
| Clean Air Act – Hazardous Air Pollutants: | Not applicable |
| EPCRA Section 313 (40 CFR Part 372): | Not applicable |
| Massachusetts RTK: | Not applicable |
| Minnesota RTK: | Not applicable |
| New Jersey RTK: | Not applicable |
| New York RTK: | Not applicable |
| NTP (National Toxicology Program): | Not applicable |
| OSHA Specifically Regulated Substances (29 CFR 1910.1001-1096): | Not applicable |
| Pennsylvania RTK: | Not applicable |
| Protective Action Criteria (PAC) with AEGLs, ERPGs, & TEELs: | Reaction product: bisphenol A-(epichlorohydrin), epoxy resin (number-average molecular weight ≤ 700) (CAS 25068-38-6) |
| Rhode Island RTK: | Not applicable |
| SB-258 Cleaning Product Right to Know Act: | Not applicable |
| The Toxic Substances Control Act (TSCA): | Reaction product: bisphenol A-(epichlorohydrin), epoxy resin (number-average molecular weight ≤ 700) (CAS 25068-38-6); Trade Secret (Not applicable) |

## SECTION 16: OTHER INFORMATION

**SDS preparation information:**

This Safety Data Sheet has been prepared in accordance with Appendix D to 29 CFR 1910.1200 – Safety Data Sheets.

**Hazard statements referenced in Section 2:**

H315: Causes skin irritation.
H317: May cause an allergic skin reaction.
H319: Causes serious eye irritation.

**Training advice:**

Employees who may be exposed to hazardous chemicals should receive appropriate hazard communication training in accordance with 29 CFR 1910.1200.

## SECTION 16: OTHER INFORMATION

**Principal references:**

Occupational Safety & Health Administration (OSHA)

**Abbreviations and acronyms:**

BCF: Bioconcentration factor
EC50: Effective concentration 50%
IARC: International Agency for Research on Cancer
IATA: International Air Transport Association
ICAO: International Civil Aviation Organization
IMDG: International Maritime Dangerous Goods Code
Koc: Partition coefficient of organic carbon
LC50: Lethal concentration 50%
LD50: Lethal dose 50%
log Pow: Octanol/water partition coefficient

**NFPA Rating:**

Health: 2
Flammability: 1
Instability: 0
Special Hazards: None

SDS Prepared By: Avanti International
Date of Preparation: December 1, 2020
Date of Last Revision: September 8, 2026

Disclaimer: The information provided in this Safety Data Sheet is based on information believed to be accurate and reliable as of the date of preparation or revision. It is provided for guidance regarding the safe handling, use, storage, transportation, and disposal of this product. The conditions of use are beyond the control of Avanti International; therefore, users are responsible for determining the suitability of this information for their particular application and for complying with applicable federal, state, and local requirements.