

AV-100 Chemical Grout (Liquid)
MATERIAL SAFETY DATA SHEET



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1. PRODUCT AND COMPANY INFORMATION

PRODUCT NAME: AV-100 Chemical Grout (Liquid)
CLASSIFICATION: Chemically Activated Gel

MANUFACTURER
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2. COMPOSITION/INGREDIENT INFORMATION

| Ingredient / CAS Number | Exposure Limits | Concentration |
|---------------------------------|--|---------------|
| Acrylamide CAS #79-06-1 | OSHA PEL: 0.3 mg/m ³ ACGIH TLV: 0.03 mg/m ³ | Trade Secret |
| Water CAS #7732-18-5110-26-9 | OSHA PEL: Not established ACGIH TLV: Not established | Trade Secret |

3. HAZARDS IDENTIFICATION

HEALTH HAZARDS: May cause cancer. Danger of serious damage to health by prolonged exposure through inhalation, in contact with skin, and if swallowed. Toxic in contact with skin and if swallowed. May cause heritable genetic damage.

EYE CONTACT: May cause slight eye irritation. May cause slight corneal injury.

SKIN CONTACT: Exposure may cause irritation and redness. A single, prolonged exposure may result in the material being absorbed in harmful amounts. A sign of excessive skin exposure is the peeling of skin. Excessive exposure may cause neurological signs and symptoms such as injury to nerves of the extremities. May cause allergic skin reaction.

INGESTION: Single oral dose is considered moderately toxic. Small amounts swallowed incidental to normal handling operations may cause serious injury; swallowing larger amounts may cause death.

INHALATION: A single, brief (minutes) exposure is not likely to cause adverse effects.

4. FIRST AID MEASURES

EYES: Flush with plenty of water for at least 15 minutes. Get medical attention.

SKIN: Wash thoroughly with soap and water, flushing for at least 15 minutes. Remove all contaminated clothing and wash or clean prior to reuse. If irritation develops, consult a physician.

INHALATION: Move to fresh air in case of accidental inhalation of vapors. If breathing is difficult, administer oxygen and call a physician, even if symptoms occur within some hours.

INGESTION: If victim is conscious, induce vomiting immediately and call a physician. Never give anything by mouth to an unconscious or convulsing person.

5. FIRE AND EXPLOSION HAZARDS

FLASH POINT: Not applicable

FLAMMABLE LIMITS: Not determined

EXTINGUISHING MEDIA: Dry chemical, carbon dioxide, alcohol-resistant foam or water spray.

PROTECTIVE EQUIPMENT: Wear self-contained breathing apparatus and full protective clothing.

SPECIAL FIRE FIGHTING PRECAUTIONS: Toxic fumes (carbon dioxide, carbon monoxide, nitrogen oxides) are released in fire situations. Downwind personnel must be evacuated.

HAZARDOUS DECOMPOSITION PRODUCTS: Ammonia. Polymerization can occur.

6. ACCIDENTAL RELEASE MEASURES

GENERAL PROCEDURES: Avoid all contact with the product by ingestion, inhalation or contact with the skin, eyes, and clothing. Wear appropriate personal protective equipment. Large amounts, keep people away from and upwind of spill/leak.

SMALL SPILLS: Soak up with inert absorbent material and collect in a waste container for disposal.

LARGE SPILLS: Do not allow to dry. Dam up. Take up mechanically and collect in suitable container for disposal. The reactivity can be reduced by diluting 1/1 (volume) with water. Clean contaminated surface thoroughly with large amounts of water.

ENVIRONMENTAL: Do not allow material to contaminate surface or ground water. Prevent product from entering drains.

7. HANDLING AND STORAGE

HANDLING: Take measures not to raise mist and vapor. Wear protective clothing and respiratory protection. After leaving area, decontaminate all clothing. Wash hands and exposed skin areas thoroughly. Empty containers contain residue; observe all precautions and warnings listed for the product.

STORAGE: Keep in a tightly closed container. Do not allow to crystallize. Keep at temperatures between 15° and 38°C (59° and 100°F). To prevent loss of dissolved oxygen, do not heat, do not use an inert blanket, and do not sparge with an inert gas.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

ENGINEERING CONTROLS: General and/or local exhaust ventilation to control vapor or mist below maximum exposure limits.

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: Wear chemical goggles and/or face shield to avoid splashing on face. Wear head covering which completely protects the head and neck.

SKIN: Wear chemically resistant boots, gloves, and chemical suit (Tychem or equivalent).

RESPIRATORY: If exposure exceeds occupational exposure limits, use an appropriate NIOSH approved full-face piece respirator, half-face piece respirator with splash goggles, or powered, filtered air-supplied hood.

OTHER PROTECTIVE EQUIPMENT: Provide eyewash fountain and quick drench facilities in close proximity to points of potential exposure.

HYGIENE PRACTICES: Wash with soap and water after handling. Remove contaminated clothing and wash before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: Colorless liquid with no odor

pH: 6.0-8.0

FREEZING POINT: 6°C (43°F)

BOILING POINT: 99-104°C (210-220°F)

VAPOR PRESSURE: 15.2 @ 20°C (68°F)

BULK DENSITY: 1.03 g/cm³ @ 25°C (77°F)

SOLUBILITY IN WATER: Soluble

10. STABILITY AND REACTIVITY

STABILITY: Stable in sealed containers under normal conditions.

CONDITIONS TO AVOID: Avoid temperatures above 38°C and below freezing point (crystallization).

MATERIALS TO AVOID: Acids, reducing agents, oxidizing agents, initiators.

HAZARDOUS DECOMPOSITION PRODUCTS: Thermal decomposition may produce ammonia carbon oxides, nitrogen oxides (NO_x).

HAZARDOUS POLYMERIZATION: May occur.

11. TOXICOLOGICAL INFORMATION

CARCINOGENICITY: This material is listed as a potential carcinogen by OSHA, IARC, and NTP. Epidemiology studies on workers involved with acrylamide monomer and polymerization operations have not shown any evidence of carcinogenicity to humans. It is investigated as a tumorigen, mutagen, and reproductive effector.

ACUTE ORAL LD50 (rat): 490 mg/kg (female) 565 mg/kg (male)

ACUTE DERMAL LD50 (rabbit): 2250 mg/kg

12. ECOLOGICAL INFORMATION

ACRYLAMIDE

ECOTOXICITY: LC50 / Cerio Daphnia / 48h = 160 mg/l

BIOACCUMULATION: Partition coefficient (n-octanol/water) log Pow = 0.67

PERSISTENCE/DEGRADABILITY: Assessment of biological degradability (closed-bottle test): >60% after 28 days.

13. DISPOSAL CONSIDERATIONS

Dispose of in accordance with local, state, and federal regulations.

14. TRANSPORT INFORMATION

DOT (DEPARTMENT OF TRANSPORTATION)

PROPER SHIPPING NAME: Acrylamide solution

HAZARD CLASS: 6.1

UN NUMBER: 3426

PACKING GROUP: III

LABEL: 6.1

PLACARD: Toxic or Poison

NMFC (NATIONAL MOTOR FREIGHT CARRIERS)

FREIGHT CLASS: 77.5

15. REGULATORY INFORMATION**SARA TITLE III****SECTION 313:** Yes**REPORTABLE QUANTITY:** 5000 lbs (40 CFR 302)**THRESHOLD PLANNING QUANTITY:** 1000 lbs (40 CFR 355)**TSCA REGULATORY:** All components of this product are either on the TSCA Inventory or exempt.**RCRA STATUS:** Hazardous waste, if discarded.**HAZARDOUS WASTE NUMBER:** U007**NFPA (NATIONAL FIRE PROTECTION AGENCY)****HEALTH:** 2**FLAMMABILITY:** 1**REACTIVITY:** 2**SPECIAL:** NONE**16. OTHER INFORMATION**

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