

**Material Safety Data Sheet**

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**Product Identification**

Product Name: AV-275 SOILGROUT

**Composition/Ingredient Information**

Ingredient Name / CAS Number	Exposure Limits	Concentration
4,4'-Diphenylmethane Diisocyanate CAS #101-68-8	OSHA PEL: 0.2 ppm ACGIH TWA: 0.05 ppm	Trade Secret
Polymethylene Polyphenyl Isocyanate CAS #9016-87-9	OSHA: Not established ACGIH: Not established	Trade Secret

**Hazards Information**

Primary Route(s) of Entry: Eye and skin contact, ingestion, and inhalation.

Health Hazards: Severe eye irritation, severe skin and upper respiratory irritation are possible, as well as headaches, shortness of breath and nausea.

Eye Contact: As liquid or dust, exposure can be irritating to the eyes; with redness, tearing, blurred vision. Prolonged contact may cause corneal damage if left untreated.

Skin Contact: Exposure can cause redness swelling, scaling or blistering of the skin. Prolonged or repeated contact may cause moderate dermatitis.

Ingestion: May have corrosive effects on the lining of the mouth and stomach. May produce abdominal pain, nausea, diarrhea, and vomiting.

Inhalation: Exposure can cause upper respiratory tract irritation and pulmonary edema can occur after overexposure; pulmonary sensitization can occur in some individuals leading to asthma like spasms of the bronchial tubes and difficulty in breathing.

**First Aid Measures**

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

Skin: Remove contaminated clothing. Wash affected areas thoroughly with soap and water. If irritation develops, consult a physician.

Inhalation: Remove to fresh air. If breathing has stopped administer artificial respiration. If breathing is difficult, administer oxygen and get medical attention. Asthma like symptoms may develop.

Ingestion: May have corrosive effects on the lining of the mouth and stomach; symptoms may include sore throat, abdominal pain, nausea, vomiting and diarrhea. **Do not induce vomiting.** If vomiting occurs, keep head below hips to prevent aspiration into lungs. Under the direction of medical personnel 1 to 2 cups of water or milk may be given to drink. Seek immediate medical attention. (Never give anything by mouth to an unconscious or convulsing person.)

**Fire and Explosion Hazards**

Flash Point: 425°F (218°C) PMCC

Flammable Limits: Not determined.

Extinguishing Media: Dry chemical, carbon dioxide, foam, or water.

Special Fire Fighting Procedures: Wear self-contained breathing apparatus and full protective clothing.

Unusual Fire and Explosion Hazards: Toxic fumes (carbon dioxide, carbon monoxide, nitrous oxide, traces of hydrogen cyanide, and MDI vapors) are released in fire situations. Downwind personnel must be evacuated. At temperatures >400°F polymeric MDI can polymerize and decompose which can build up pressure in closed containers making explosive rupture possible.

**Accidental Release Measures**

Spill or Leak Procedures: Eliminate all ignition sources and evacuate spill area; with adequate ventilation, cover the spill with an inert absorbent material. Pour isocyanate decontaminant solution (90% water, 8% concentrated ammonia, 2% detergent) on spill and allow to react for 10 minutes. Alternately, pour water on the spill and allow reaction to occur for more than 30 minutes. Place in a proper waste container. Do not seal the drum for 48 hours to avoid possible pressure build up (CO<sub>2</sub>). Wear respirator and other protective equipment for protection of eyes and skin during cleanup. Dispose of by any standard method in compliance with federal, state, and local protocols.

**Handling and Storage**

Storage: Store in a dry area between 60°F-85°F (16°-30°C).

Handling: Use only in well ventilated areas. Wear personal protective equipment. Empty containers of this material may be hazardous since they retain product residues. Keep containers securely sealed when not in use.

**Exposure Controls and Personal Protection**

Respiratory Protection: Wear NIOSH/MSHA approved supplied air respirator or self-contained breathing apparatus when airborne concentrations are unknown or exceed permissible limits. Half face organic vapor respirators may be worn for up to ten times the exposure limit, or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. Air purifying respirators do not protect workers in oxygen deficient atmospheres.

Ventilation: Mechanical general/local exhaust to control vapor or mist below maximum exposure limits.

Protective Clothing: Wear impervious clothing, including boots, gloves, and chemical safety goggles.

Eye Protection: Use chemical safety goggles and/or a full face shield where splashing is possible. Maintain an eye wash fountain and quick drench facilities in the work area.

Other Protective Equipment: Use impervious rubber gloves and boots.

Work/Hygienic Practices: Wash with soap and water after handling. Remove contaminated clothing and discard.

**Physical and Chemical Properties**

Appearance and Odor: Dark brown viscous liquid with pungent aroma

Boiling Point: >404°F (207°C)

Vapor Density (Air = 1): Not Listed

Specific Gravity (water=1): 1.15 (+0.005)

Melting Point: Not Determined

Evaporation Rate (butyl acetate): Not Determined

Solubility in Water: Insoluble, reacts rapidly with water to liberate carbon dioxide gas.

**Stability and Reactivity**

Stability: Stable in sealed containers under recommended storage conditions.

Incompatibility (materials to avoid): Water, amines, alcohols, strong bases and metal compounds.

Hazardous Decomposition Products: Carbon dioxide, carbon monoxide, nitrous oxide, traces of hydrogen cyanide, and MDI vapors.

Polymerization: Can occur with exposure to alkalis, amines, and metal compounds, or temperatures over 320°F (160°C).

**Toxicological Information**

Carcinogenicity: No NTP – N/A

IARC monographs: None

Teratogenicity: None Determined

Reproductive Toxicity: Not Determined

Mutagenicity: None Determined

Synergistic products: None

OSHA regulated: No

LD<sub>50</sub>: Polymeric MDI

Acute Oral (rat): 5000 mg/kg

Acute Dermal (rabbit): 5000 mg/kg

Acute inhalation (rat): 490 mg/M<sup>3</sup> \*

\*(4 hours exposure to respirable aerosol)

**Ecological Information**

Immiscible with water, but will react with water to product inert and non-biodegradable solids.

**Disposal Considerations**

Disposal should be in accordance with local, state, and federal regulations.

**Transport Information**

Proper Shipping Name: Resin Compound  
 DOT Hazard Classification: N/A  
 UN/NA Number:  
 Packaging Group: N/A  
 Freight Class: 55  
 DOT Labels Required: N/A  
 DOT Placards Required: N/A

**Regulatory Information**

	TSCA	SARA 302		SARA 313	CERCLA	RCRA	TSCA
		RQ	TPQ	LIST		261.33	8(d)
4,4'- Diphenylmethane Diisocyanate (101-68-8):	Yes	No	No	Yes	5000	No	Yes
Polymethylene Polyphenyl Isocyanate (9016-87-9):	No	No	No	No	No	No	No

**Other Information**

The information on this MSDS is accurate to the best of Avanti International's knowledge. Avanti International makes no expressed or implied warranty, and in no case shall be liable for consequential, special, or indirect damages resulting from the use or handling of this product.