

Material Safety Data Sheet

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Product Identification

Product Name: AV-202 MULTIGROUT

Composition/Ingredient Information

Ingredient Name / CAS Number	Exposure Limits	Concentration
4,4'-Diphenylmethane Diisocyanate CAS #101-68-8	OSHA PEL: 0.02 ppm ACGIH TWA: 0.005 ppm	Trade Secret
Higher Oligomers of MDI CAS #9016-87-9	OSHA: Not established ACGIH: Not established	Trade Secret
Diphenylmethane Diisocyanate CAS #26447-40-5	OSHA PEL: Not established ACGIH TWA: Not established	Trade Secret
2,4 Toluene Diisocyanate CAS #584-84-9	OSHA PEL: 0.005 ppm ACGIH TWA: 0.005 ppm	Trade Secret
2,6 Toluene Diisocyanate CAS #91-08-7	OSHA PEL: 0.005 ppm ACGIH TWA: 0.005 ppm	Trade Secret

Hazards Information

Primary Route(s) of Entry: Skin absorption, ingestion, and inhalation.

Health Hazards: Severe eye irritation, severe skin and upper respiratory irritation are possible.

Eye Contact: Vapors are irritating to the eyes; with redness, tearing, and blurred vision. Prolonged vapor contact may cause conjunctivitis.

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 a serious vapor exposure; 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: Wash thoroughly with soap and water. If irritation develops, consult a physician. All contaminated clothing should be washed prior to reuse.

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. Seek immediate medical attention. (Never give anything by mouth to an unconscious or convulsing person.)

Fire and Explosion Hazards

Flash Point: >212°F (100°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, carbon dioxide, nitrogen oxides, traces of cyanic acid, and TDI 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 (CO₂). Wear respirator and other protective equipment for protection of eyes and skin during cleanup.

Handling and Storage

Storage: Store in a dry area between 64°F-86°F (18°-30°C).

Handling: Handling: Use only in well ventilated areas, unless used with recommended respiratory protection. Empty containers of this material may be hazardous when empty since they retain product residues; observe all warnings and precautions listed for the product.

Exposure Controls and Personal Protection

Respiratory Protection: Wear NIOSH/MSHA approved full face respirator with approved cartridges.

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

Protective Clothing: Wear impervious clothing, including boots, gloves, lab coat, apron or coveralls.

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 wash before next use.

Physical and Chemical Properties

Appearance and Odor: Transparent brown liquid, faint musty odor

Boiling Point: Not determined

Vapor Pressure (mm Hg @ 25°C): Not determined

Vapor Density: Not determined

Specific Gravity (water=1): 1.24 (+0.005)

Melting Point: Not Determined

Evaporation Rate (butyl acetate): Not Determined

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

Stability and Reactivity

Stability: Stable in sealed containers.

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

Hazardous Decomposition Products: Carbon dioxide, carbon monoxide, carbon dioxide, nitrogen oxides, traces of cyanic acid, and TDI vapors.

Polymerization: Can occur.

Toxicological Information

Carcinogenicity: NTP and IARC consider Toluene Diisocyanate a potential carcinogen
 IARC monographs:
 Teratogenicity: None Determined
 Reproductive Toxicity: Not Determined
 Mutagenicity: None Determined
 Synergistic products: None OSHA regulated: Yes

Ecological Information

None listed.

Disposal Considerations

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

Transport Information

Proper Shipping Name: Organic, n.o.s., (contains: toluene diisocyanate)
 DOT Hazard Classification: None
 UN/NA Number: None
 Packaging Group: None
 Freight Class:
 DOT Labels Required: None
 DOT Placards Required: None

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
Higher Oligomers of MDI (9016-87-9):	NO	NO	NO	NO	NO	NO	NO
Diphenylmethane Diisocyanate (26447-40-5):	NO	NO	NO	NO	NO	NO	NO
2,4 Toluene Diisocyanate (584-84-9):	YES	100		YES	YES	U223	YES
2,6 Toluene Diisocyanate (91-08-7):	YES	100		YES	YES	U223	YES

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.