

AV-278 LOW VIS Hydro™**SECTION 1. IDENTIFICATION**

Product Identifier	AV-278 LOW VIS Hydro™
Other Means of Identification	Hydrophobic Grout
Other Identification	HYDROPHOBIC POLYURETHANE FOAM RESIN
Recommended Use	Industrial Use Only.
Restrictions on Use	Not applicable.
Manufacturer/Supplier Identifier	Avanti International, 822 Bay Star Blvd, Webster, TX, 77598, USA, 281.486.5600, avantigrout.com
Emergency Phone No.	ChemTrec, 800.424.9300
Date of Preparation	March 15, 2018

SECTION 2. HAZARD IDENTIFICATION

Classified according to Canada's Hazardous Products Regulations (WHMIS 2015) and the US Hazard Communication Standard (HCS 2012).

Classification

Eye irritation - Category 2A; Respiratory sensitization - Category 1A; Skin sensitization - Category 1; Specific target organ toxicity (single exposure) - Category 3; Specific target organ toxicity (repeated exposure) - Category 2

Label Elements

Signal Word:

Danger

Hazard Statement(s):

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H335 May cause respiratory irritation.

H335 May cause respiratory irritation.

H336 May cause drowsiness or dizziness.

H373 May cause damage to organs (respiratory system) through prolonged or repeated exposure if inhaled.

Precautionary Statement(s):

Prevention:

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P264 Wash hands and skin thoroughly after handling.

P272 Contaminated work clothing must not be allowed out of the workplace.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

Product Identifier: AV-278 LOW VIS Hydro™ - Ver. 1

Date of Preparation: March 15, 2018

Date of Last Revision: May 08, 2018

Page 01 of 07

P284 Wear respiratory protection (NIOSH approved air-purifying respirator with N100, R100, or P100 filter).
And NIOSH approved air-purifying respirator with an organic vapour cartridge

Response:

P302 + P352 IF ON SKIN: Wash with plenty of water/

P304 + P341 IF INHALED: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P308 + P313 IF exposed or concerned: Get medical advice or attention.

P312 Call a POISON CENTRE or doctor if you feel unwell.

P314 Get medical advice or attention if you feel unwell.

P333 + P313 If skin irritation or rash occurs: Get medical advice or attention.

P337 + P313 If eye irritation persists: Get medical advice or attention.

P342 + P311 If experiencing respiratory symptoms: Call a POISON CENTRE or doctor.

P362 + P364 Take off contaminated clothing and wash it before reuse.

Storage:

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

Disposal:

P501 Dispose of contents and container in accordance with local, regional, national and international regulations.

Other Hazards

Water-reactive.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture:

Chemical Name	CAS No.	%	Other Identifiers	Other Names
Oxirane, methyl-, polymer with oxirane, ether with 1,2,3-propanetriol (3:1), polymer with 1, 1'-methylenebis[4-isocyanatobenzene]	59675-67-1	80	Prepolymer	
4,4'-Methylenediphenyl diisocyanate	101-68-8	15	MDI	

SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation

Move to fresh air. Get medical advice or attention if you feel unwell or are concerned.

Skin Contact

Avoid direct contact. Wear chemical protective clothing if necessary. Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Wash gently and thoroughly with lukewarm, gently flowing water and mild soap for 5 minutes. Get medical advice or attention if you feel unwell or are concerned. If skin irritation or a rash occurs, get medical advice or attention. Thoroughly clean clothing, shoes and leather goods before reuse or dispose of safely.

Eye Contact

Avoid direct contact. Wear chemical protective gloves if necessary. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice or attention.

Ingestion

Rinse mouth with water. Get medical advice or attention if you feel unwell or are concerned.

First-aid Comments

If exposed or concerned, get medical advice or attention.

Product Identifier: AV-278 LOW VIS Hydro™ - Ver. 1

Date of Preparation: March 15, 2018

Date of Last Revision: May 08, 2018

Page 02 of 07

Most Important Symptoms and Effects, Acute and Delayed

If inhaled: can irritate the nose and throat. Symptoms may include coughing, shortness of breath, difficult breathing and tightness in the chest.

Immediate Medical Attention and Special Treatment

Target Organs

Lungs, respiratory system.

Special Instructions

Monitor cardiovascular function.

Medical Conditions Aggravated by Exposure

Asthma, dermatitis.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Use water to keep non-leaking, fire-exposed containers cool.

Unsuitable Extinguishing Media

None known.

Specific Hazards Arising from the Product

This product presents no unusual hazards in a fire situation.

Very toxic carbon monoxide, carbon dioxide; extremely hazardous hydrogen cyanide; corrosive, oxidizing nitrogen oxides; very toxic polycyclic aromatic hydrocarbons.

Special Protective Equipment and Precautions for Fire-fighters

Approach fire from upwind to avoid hazardous vapours or gases. Knock down vapours or gases with water fog or fine water spray. Before entry, especially into confined areas, use an appropriate monitor to check for: toxic gases or vapours.

Chemical protective clothing (e.g. chemical splash suit) and positive pressure SCBA may be necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

Do not touch damaged containers or spilled product unless wearing appropriate protective equipment. Increase ventilation to area or move leaking container to a well-ventilated and secure area.

Environmental Precautions

It is good practice to prevent releases into the environment. Do not allow into any sewer, on the ground or into any waterway. If the spill is inside a building, prevent product from entering drains, ventilation systems and confined areas.

Methods and Materials for Containment and Cleaning Up

Small spills or leaks: stop or reduce leak if safe to do so. Contain and soak up spill with absorbent that does not react with spilled product. Place used absorbent into suitable, covered, labelled containers for disposal. Contaminated absorbent poses the same hazard as the spilled product. Large spills or leaks: dike spilled product to prevent runoff. Knock down vapour with fog or fine water spray. Get expert advice before treating the spilled product with other chemicals to make it less hazardous. Store recovered product in suitable containers that are: tightly-covered. Contact emergency services and manufacturer/supplier for advice.

Other Information

Contact supplier, local fire and emergency services for help.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

Avoid breathing in this product. Do not get in eyes, on skin or on clothing. Avoid exposure during pregnancy and while nursing. Avoid generating vapours or mists. Prevent uncontrolled release of product. Immediately report leaks, spills or

Product Identifier: AV-278 LOW VIS Hydro™ - Ver. 1

Date of Preparation: March 15, 2018

Date of Last Revision: May 08, 2018

Page 03 of 07

failures of the safety equipment (e.g. ventilation system). Wear personal protective equipment to avoid direct contact with this chemical. Avoid repeated or prolonged skin contact with product or with contaminated equipment/surfaces. Keep containers tightly closed when not in use or empty. For large-scale use: isolate and purge all equipment, piping or vessels prior to maintenance or repairs. General hygiene considerations: do NOT smoke in work areas. Do NOT eat, drink or store food in work areas. Remove contaminated clothing and protective equipment before entering eating areas or leaving work area. Wash hands thoroughly after handling this product and before eating, using the washroom or leaving work area. Thoroughly clean clothing, shoes and leather goods before reuse or dispose of safely.

Conditions for Safe Storage

Store in an area that is: cool, well-ventilated, separate from incompatible materials (see Section 10: Stability and Reactivity). Have escape-type respiratory protective equipment readily available, in case of leaks or spills.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Chemical Name	ACGIH TLV®		OSHA PEL		AIHA WEEL	
	TWA	STEL	TWA	Ceiling	8-hr TWA	TWA
4,4'-Methylenediphenyl diisocyanate	0.005 ppm			0.2 mg/m ³		

Appropriate Engineering Controls

Use local exhaust ventilation, if general ventilation is not adequate to control amount in the air. Provide eyewash and safety shower if contact or splash hazard exists.

Individual Protection Measures

Eye/Face Protection

Wear chemical safety goggles and face shield when contact is possible.

Skin Protection

Wear chemical protective clothing e.g. gloves, aprons, boots. Wear a chemical splash suit and respiratory protection.

Suitable materials are: Chemical Resistant Gloves: butyl rubber, nitrile rubber, polyvinyl chloride, Viton®/butyl rubber. Chemical Resistant Suit: Barrier® (PE/PA/PE), Saranex®.

Respiratory Protection

Wear a NIOSH approved air-purifying respirator with N100, R100, or P100 filter(s). And wear a NIOSH approved air-purifying respirator with an organic vapour cartridge. Either full-face piece or half-face piece with splash goggles.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

Appearance	Dark brown liquid.
Odour	Pungent
Odour Threshold	Not available
pH	Not available
Melting Point/Freezing Point	Not available (melting); < 32 °F (0 °C) (freezing)
Initial Boiling Point/Range	400 °F (204 °C)
Flash Point	425 °F (218 °C) (closed cup)
Evaporation Rate	Not available
Flammability (solid, gas)	Not available
Upper/Lower Flammability or Explosive Limit	Not available (upper); Not available (lower)
Vapour Pressure	Not applicable
Vapour Density (air = 1)	Not available
Relative Density (water = 1)	1.171
Solubility	Not available in water; Highly soluble in aromatic hydrocarbons (e.g. toluene).

Product Identifier: AV-278 LOW VIS Hydro™ - Ver. 1

Date of Preparation: March 15, 2018

Date of Last Revision: May 08, 2018

Page 04 of 07

Partition Coefficient, n-Octanol/Water (Log Kow)	Not available
Auto-ignition Temperature	Not available
Decomposition Temperature	Not available
Viscosity	Not available (kinematic); 25 - 100 centipoises at 77 °F (25 °C) (dynamic)

SECTION 10. STABILITY AND REACTIVITY

Reactivity

Not applicable.

Chemical Stability

Normally stable.

Possibility of Hazardous Reactions

Not applicable.

Conditions to Avoid

Water, moisture or humidity.

Incompatible Materials

Polymerizes on contact with: alcohols (e.g. ethanol), alkanolamines (e.g. triethanolamine), amines (e.g. triethylamine), glycols (e.g. ethylene glycol), phenols (e.g. carboic acid), reducing agents (e.g. hydroquinone), strong reducing agents (e.g. hydrides), water.

Not corrosive to metals.

Hazardous Decomposition Products

Very toxic carbon monoxide, carbon dioxide; extremely hazardous hydrogen cyanide; corrosive, oxidizing nitrogen oxides.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure

Inhalation; skin contact; skin absorption; eye contact; ingestion.

Acute Toxicity

Chemical Name	LC50	LD50 (oral)	LD50 (dermal)
4,4'-Methylenediphenyl diisocyanate	2 mg/L (rat) (aerosol)	> 2000 mg/kg (rat)	> 9400 mg/kg (rabbit)

Inhalation ATEmix = 13.3 mg/L

Skin Corrosion/Irritation

May cause mild irritation based on information for closely related chemicals.

Serious Eye Damage/Irritation

May cause mild irritation based on information for closely related chemicals.

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation

May be harmful based on animal tests. May cause nose and throat irritation.

Skin Absorption

May cause Symptoms may include redness, rash, swelling and itching.

Ingestion

No information was located.

Aspiration Hazard

Symptoms may include coughing, choking, shortness of breath, difficult or rapid breathing, and wheezing.

STOT (Specific Target Organ Toxicity) - Repeated Exposure

Product Identifier: AV-278 LOW VIS Hydro™ - Ver. 1

Date of Preparation: March 15, 2018

Date of Last Revision: May 08, 2018

May cause irritation of the respiratory system. May cause respiratory tract injury, dermatitis.

Respiratory and/or Skin Sensitization

Respiratory sensitizer. Skin sensitizer.

Carcinogenicity

Chemical Name	IARC	ACGIH®	NTP	OSHA
4,4'-Methylenediphenyl diisocyanate	Group 3	Not designated	Not Listed	Not Listed

No information was located.

Reproductive Toxicity

Development of Offspring

No information was located.

Sexual Function and Fertility

No information was located.

Effects on or via Lactation

No information was located.

Germ Cell Mutagenicity

No information was located.

Interactive Effects

No information was located.

No information was located for: Carcinogenicity, Development of Offspring, Sexual Function and Fertility, Effects on or via Lactation, Germ Cell Mutagenicity, Interactive Effects

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

No information was located.

Acute Aquatic Toxicity

Chemical Name	LC50 Fish	EC50 Crustacea	ErC50 Aquatic Plants	ErC50 Algae
4,4'-Methylenediphenyl diisocyanate		> 1000 mg/L (Daphnia magna (water flea))		

Persistence and Degradability

No information was located.

Bioaccumulative Potential

No information was located.

Mobility in Soil

No information was located.

Other Adverse Effects

There is no information available.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods

Dispose of contents and container in accordance with local, regional, national and international regulations. Empty containers retain product residue. Follow label warnings even if container appears to be empty. Do not reuse empty containers. Dispose of or recycle empty containers through an approved waste management facility.

Product Identifier: AV-278 LOW VIS Hydro™ - Ver. 1

Date of Preparation: March 15, 2018

Date of Last Revision: May 08, 2018

SECTION 14. TRANSPORT INFORMATION

Not regulated under Canadian TDG regulations. Not regulated under US DOT Regulations.

Environmental Hazards Not applicable

Special Precautions Not applicable

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations

USA

Toxic Substances Control Act (TSCA) Section 8(b)

All ingredients are listed on the TSCA Inventory.

Additional USA Regulatory Lists

SARA Title III - Section 313: Diethylene Glycol Ether Acetate (CAS # 112-15-2)

4,4'-Methylenebis(phenyl isocyanate) (CAS # 101-68-8)

Oxirane, methyl-, polymer with oxirane, ether with 1,2,3-propantriol (3:1), polymer with 1,1'-methylenebis[4-isocyanatobenze] (CAS # 59675-67-1).

SECTION 16. OTHER INFORMATION

NFPA Rating Health - 2 Flammability - 1 Instability - 1

SDS Prepared By Avanti International

Date of Preparation March 15, 2018

Date of Last Revision May 08, 2018

Revision Indicators Not applicable.

Key to Abbreviations ACGIH® = American Conference of Governmental Industrial Hygienists
IARC = International Agency for Research on Cancer
NFPA = National Fire Protection Association NIOSH = National Institute for Occupational Safety and Health
NTP = National Toxicology Program
OSHA = US Occupational Safety and Health Administration
RTECS® = Registry of Toxic Effects of Chemical Substances

References CHEMINFO database. Canadian Centre for Occupational Health and Safety (CCOHS).
HSDB® database. US National Library of Medicine. Available from Canadian Centre for Occupational Health and Safety (CCOHS). NIOSH Pocket Guide database. National Institute for Occupational Safety and Health. Available from Canadian Centre for Occupational Health and Safety (CCOHS). Registry of Toxic Effects of Chemical Substances (RTECS®) database. Dassault Systèmes/BIOVIA ("BIOVIA"). Available from Canadian Centre for Occupational Health and Safety (CCOHS).

Product Identifier: AV-278 LOW VIS Hydro™ - Ver. 1

Date of Preparation: March 15, 2018

Date of Last Revision: May 08, 2018

Page 07 of 07