

AV-222 Cleaner™**SECTION 1. IDENTIFICATION**

Product Identifier	AV-222 Cleaner
Other Means of Identification	Cured grout removing mixture
Recommended Use	Industrial Use Only.
Restrictions on Use	None known.
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	April 24, 2018

SECTION 2. HAZARD IDENTIFICATION

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

Classification

Flammable liquid - Category 2; Corrosive to metals - Category 1; Acute toxicity (Oral) - Category 3; Acute toxicity (Dermal) - Category 3; Acute toxicity (Inhalation) - Category 3; Skin corrosion - Category 1; Specific target organ toxicity (single exposure) - Category 1; Specific target organ toxicity (single exposure) - Category 3; Aspiration hazard - Category 1; Aquatic hazard (Acute) - Category 3

Label Elements

Signal Word:

Danger

Hazard Statement(s):

H225	Highly flammable liquid and vapour.
H290	May be corrosive to metals.
H301	Toxic if swallowed.
H311	Toxic in contact with skin.
H331	Toxic if inhaled.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H370	Causes damage to organs.
H402	Harmful to aquatic life.

Precautionary Statement(s):

Prevention:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233	Keep container tightly closed.

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- P234 Keep only in original container.
 P240 Ground/bond container and receiving equipment.
 P241 Use explosion-proof electrical, ventilating, and lighting equipment.
 P242 Use only non-sparking tools.
 P243 Take precautionary measures against static discharge.
 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.
 P270 Do not eat, drink or smoke when using this product.
 P271 Use only outdoors or in a well-ventilated area.
 P273 Avoid release to the environment.
 P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response:

- P301 + P310 IF SWALLOWED: Immediately call a POISON CENTRE/doctor/
 P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
 P302 + P352 IF ON SKIN: Wash with plenty of water.
 P304 + P340 IF INHALED: 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.
 P307 + P311 If exposed: Call a POISON CENTRE or doctor.
 P310 Immediately call a POISON CENTRE or doctor.
 P311 Call a POISON CENTRE or doctor.
 P330 Rinse mouth.
 P331 Do NOT induce vomiting.
 P361 + P364 Take off immediately all contaminated clothing and wash it before reuse.
 P370 + P378 In case of fire: Use carbon dioxide to extinguish.
 P390 Absorb spillage to prevent material damage.

Storage:

- P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
 P405 Store locked up.
 P406 Store in corrosive resistant container with a resistant inner liner.

Disposal:

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

Other Hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	%	Other Identifiers	Other Names
Methanol	67-56-1	25	MeOH	
Potassium hydroxide	1310-58-3	20	KOH	

SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation

Take precautions to prevent a fire (e.g. remove sources of ignition). Take precautions to ensure your own safety before attempting rescue (e.g. wear appropriate protective equipment). Remove source of exposure or move to fresh air. Call a Poison Centre or doctor if you feel unwell.

Skin Contact

Avoid direct contact. Wear chemical protective clothing if necessary. Take off immediately contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Quickly and gently blot or brush away excess chemical. Immediately rinse skin with lukewarm, gently flowing water for at least 30 minutes. Immerse in cool water. If breathing has stopped, trained personnel should immediately begin rescue breathing. Thoroughly clean clothing,

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shoes and leather goods before reuse or dispose of safely.

Eye Contact

Avoid direct contact. Wear chemical protective gloves if necessary. Rinse the contaminated eye(s) with lukewarm, gently flowing water for 5 minutes, while holding the eyelid(s) open. If eye irritation persists, get medical advice or attention.

Ingestion

Rinse mouth with water. Do not induce vomiting. If the heart has stopped, trained personnel should start cardiopulmonary resuscitation (CPR) or automated external defibrillation (AED).

First-aid Comments

Get medical advice or attention if you feel unwell or are concerned.

Most Important Symptoms and Effects, Acute and Delayed

If inhaled and/or swallowed and/or on skin: can cause severe irritation of the nose and throat. Can cause headache, nausea, vomiting, dizziness, drowsiness and confusion. A severe exposure can cause stomach pain, muscle pain, difficult breathing and coma. Vision can be impaired and permanent blindness can result. There may be other permanent effects on the nervous system e.g. tremor, seizures. Permanent damage can result. The vapour also irritates the eyes. May cause serious eye damage. May irritate or burn the eyes. Permanent damage including blindness may result.

Immediate Medical Attention and Special Treatment

Target Organs

Nervous system.

Special Instructions

Monitor kidney function. Monitor liver function. Monitor lung function. Monitor nervous system function.

Medical Conditions Aggravated by Exposure

Asthma, kidney conditions, liver conditions, nervous system conditions, respiratory conditions.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Carbon dioxide, dry chemical powder, appropriate foam, water spray or fog.

Unsuitable Extinguishing Media

Water is not effective for extinguishing a fire. It may not cool product below its flash point.

Specific Hazards Arising from the Product

Highly flammable liquid and vapour. Can ignite at room temperature. Releases vapour that can form explosive mixture with air.

Very toxic carbon monoxide, carbon dioxide.

Special Protective Equipment and Precautions for Fire-fighters

Use extreme caution. Evacuate area. Fight fire from a safe distance or a protected location. 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, flammable or explosive atmosphere, sufficient oxygen.

Fire-fighters may enter the area if positive pressure SCBA and full Bunker Gear is worn. A full-body encapsulating chemical protective suit with positive pressure SCBA may be necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

Emergency responders: get expert advice. Evacuate the area immediately. Isolate the hazard area. Keep out unnecessary and unprotected personnel. Do not touch damaged containers or spilled product unless wearing appropriate protective equipment. Evacuate downwind locations. Eliminate all ignition sources. Use grounded, explosion-proof equipment. Distant ignition and flashback are possible. Monitor area for flammable or explosive

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atmosphere. Test for sufficient oxygen levels.

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. Do not use absorbents. Contain spill using noncombustible material such as vermiculite, earth or sand. 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. Remove or recover liquid using pumps or vacuum equipment. Store recovered product in suitable containers that are: tightly-covered, water-filled, corrosion-resistant.

Other Information

Contact supplier, local fire and emergency services for help. Report spills to local health, safety and environmental authorities, as required.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

Obtain special instructions before use. Do not breathe in this product. Avoid breathing in this product. Avoid repeated or prolonged skin contact. Do not get in eyes, on skin or on clothing. Do not swallow. Only use where there is adequate ventilation. Avoid generating vapours or mists. Do NOT work alone with this product. Prevent uncontrolled release of product. Avoid release to the environment. Immediately report leaks, spills or failures of the safety equipment (e.g. ventilation system). In event of a spill or leak, immediately put on escape-type respirator and exit the area. Get medical advice or attention for all exposures. Symptoms can be delayed. Eliminate heat and ignition sources such as sparks, open flames, hot surfaces and static discharge. Post "No Smoking" signs. Avoid heating that will increase the amount of vapours. Do not weld, cut or perform hot work on empty container until all traces of product have been removed. Electrically bond and ground equipment. Ground clips must contact bare metal. Increase conductivity by reducing flow rate in transfer operations and/or handle at lower temperature. Keep only in original packaging. Use non-sparking tools. Do not use compressed air for filling, discharging, or handling operations. Prevent accidental contact with incompatible chemicals. Avoid ALL unprotected contact with this product or with contaminated equipment/surfaces. Avoid repeated or prolonged skin contact with product or with contaminated equipment/surfaces. Wear personal protective equipment to avoid direct contact with this chemical. Use corrosion-resistant tools and equipment. See Section 10 (Stability and Reactivity) for suitable materials. Never add water to a corrosive. Always add corrosives slowly to COLD water. If contaminated, product is shock, impact and friction sensitive. Do not skid, drag or drop containers. Keep containers tightly closed when not in use or empty. Never reuse empty containers, even if they appear to be clean. Do not use at elevated temperatures without a thorough safety assessment. Use an inert gas in the handling equipment and storage vessel. Isolate and purge all equipment, piping or vessels prior to maintenance or repairs. General hygiene considerations: it is good practice to: avoid breathing product; avoid skin and eye contact and wash hands after handling. 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. Consider using a double locker-shower facility. Wash hands thoroughly after handling this product and before eating, using the washroom or leaving work area. Immediately remove contaminated clothing using the method that minimizes exposure. Safely dispose of contaminated clothing, shoes and leather goods. DO NOT re-use. Keep contaminated clothing in closed containers. Do not take contaminated clothing home. Properly dispose of any contaminated items, including shoes, that cannot be decontaminated. DO NOT re-use.

Conditions for Safe Storage

Store in an area that is: cool, temperature-controlled, dry, well-ventilated, out of direct sunlight and away from heat and ignition sources, an approved, fire-resistant area, secure and separate from work areas, clear of combustible and flammable materials (e.g. old rags, cardboard). Protect from sunlight. Restrict access to authorized personnel only. Keep amount in storage to a minimum. Store in a closed container. Store in corrosive resistant container with a resistant inner liner. Store product under an inert gas such as nitrogen.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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Control Parameters

Chemical Name	ACGIH TLV®		OSHA PEL		AIHA WEEL	
	TWA	STEL	TWA	Ceiling	8-hr TWA	TWA
Methanol	250 ppm	250 ppm	200 ppm			
Potassium hydroxide		2 mg/m3				

Appropriate Engineering Controls

For large scale use of this product: do not allow product to accumulate in the air in work or storage areas, or in confined spaces. Use local exhaust ventilation and enclosure, if necessary, to control amount in the air. Use non-sparking ventilation systems, approved explosion-proof equipment and intrinsically safe electrical systems in areas where this product is used and stored. Control static electricity discharges which includes bonding of equipment to ground. Use only non-combustible, compatible materials for walls, floors, ventilation system, air cleaning devices, pallets, shelving. 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, neoprene rubber, nitrile rubber, Viton®/butyl rubber. Chemical Resistant Suit: Barrier® (PE/PA/PE), Saranex®, Tychem® SL (Saranex™).

Respiratory Protection

Wear a NIOSH approved air-purifying respirator with an organic vapour cartridge.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

Appearance	Clear white liquid.
Odour	Alcoholic
Odour Threshold	Not available
pH	14
Melting Point/Freezing Point	Not available (melting); Not available (freezing)
Initial Boiling Point/Range	145 °F (63 °C)
Flash Point	54 °F (12 °C)
Evaporation Rate	Not available
Flammability (solid, gas)	Not available
Upper/Lower Flammability or Explosive Limit	Not available (upper); 7.3% (lower)
Vapour Pressure	35 mm Hg (5 kPa) at 68 °F (20 °C)
Vapour Density (air = 1)	Not available
Relative Density (water = 1)	1.01 at 68 °F (20 °C)
Solubility	Soluble in all proportions in water; Not available (in other liquids)
Partition Coefficient, n-Octanol/Water (Log Kow)	Not available
Auto-ignition Temperature	867 °F (464 °C)
Decomposition Temperature	Not available
Viscosity	Not available (kinematic); Not available (dynamic)
Other Information	
Physical State	Liquid

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SECTION 10. STABILITY AND REACTIVITY

Reactivity

None known.

Chemical Stability

Normally stable.

Possibility of Hazardous Reactions

None known.

Conditions to Avoid

Acidic conditions (low pH). Heat. Open flames, sparks, static discharge, heat and other ignition sources.

Incompatible Materials

Reacts violently with: water, strong acids (e.g. hydrochloric acid).

Corrosive to: aluminum alloys, zinc, lead.

Hazardous Decomposition Products

Very toxic carbon monoxide, carbon dioxide.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure

Inhalation; skin contact; skin absorption; eye contact.

Acute Toxicity

Chemical Name	LC50	LD50 (oral)	LD50 (dermal)
Methanol	64000 ppm (4-hour exposure) (vapour)	5628 mg/kg (rat)	15800 mg/kg (rabbit)
Potassium hydroxide		365 mg/kg (rat)	2000-3160 mg/kg (rabbit)

Skin Corrosion/Irritation

Animal tests show moderate or severe irritation.

Serious Eye Damage/Irritation

May cause serious eye irritation based on information for closely related materials. Animal tests show serious eye irritation.

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation

Causes severe nose and throat irritation.

Skin Absorption

No information was located.

Ingestion

Causes depression of the central nervous system, impaired vision and blindness. In some cases, there may be delayed effects on the nervous system. Symptoms may include headache, nausea, vomiting, dizziness, drowsiness and confusion. A severe exposure may cause stomach pain, muscle pain, difficult breathing and coma. Vision can be impaired and permanent blindness can result. There may be other permanent effects on the nervous system e.g. tremor, seizures.

Aspiration Hazard

No information was located.

STOT (Specific Target Organ Toxicity) - Repeated Exposure

Toxic. Causes severe effects (serious permanent impairment or life-threatening) based on animal studies.

Respiratory and/or Skin Sensitization

No information was located.

Carcinogenicity

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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.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Harmful to fish.

Persistence and Degradability

Degrades rapidly based on quantitative tests.

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. Treat waste in an approved waste disposal facility.

SECTION 14. TRANSPORT INFORMATION

Regulation	UN No.	Proper Shipping Name	Transport Hazard Class(es)	Packing Group
US DOT	2924	Flammable Liquid, Corrosive, n.o.s.	3	II
Canadian TDG	2924	Flammable Liquid, Corrosive, n.o.s.	3	II

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

Canada

Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)

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All ingredients are listed on the DSL or are not required to be listed.

USA

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

All ingredients are on the TSCA Inventory or are exempt from TSCA Inventory requirements under 40 CFR 720.

SECTION 16. OTHER INFORMATION

NFPA Rating	Health - 1	Flammability - 3	Instability - 1
SDS Prepared By	Avanti International		
Date of Preparation	April 24, 2018		
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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).		

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