

AV-102® Catalyst AP

SECTION 1. IDENTIFICATION

Product Identifier	AV-102 Catalyst AP
Other Means of Identification	APS
Other Identification	AMMONIUM PERSULFATE / INITIATOR
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	March 07, 2018

SECTION 2. HAZARD IDENTIFICATION

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

Classification

Oxidizing solid - Category 3; Acute toxicity (Oral) - Category 4; Skin irritation - Category 2; Eye irritation - Category 2; Respiratory sensitization - Category 1; Skin sensitization - Category 1; Specific target organ toxicity (single exposure) - Category 3

Label Elements



Signal Word:

Danger

Hazard Statement(s):

H272 May intensify fire; oxidizer.

H302 Harmful if swallowed.

H315 + H320 Causes skin and eye irritation.

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

H335 May cause respiratory irritation.

Precautionary Statement(s):

Prevention:

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

P220 Keep or store away from clothing and other combustible materials.

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

P221 Take any precaution to avoid mixing with combustibles.

P280 Wear protective gloves/eye protection/face protection.

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.

Product Identifier: AV-102 Catalyst AP - Ver. 1

Date of Preparation: March 07, 2018

Date of Last Revision: May 07, 2018

Page 01 of 07

P284 In case of inadequate ventilation wear respiratory protection (NIOSH approved air-purifying respirator with N100, R100, or P100 filter).

Response:

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

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.

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

P330 Rinse mouth.

P332 + P313 If skin irritation occurs: Get medical advice or attention.

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

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

Storage:

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

P405 Store locked up.

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
Ammonium persulfate	7727-54-0	100	APS	

SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation

Move to fresh air. If experiencing respiratory symptoms (e.g. coughing, shortness of breath, wheezing), call a Poison Centre or doctor.

Skin Contact

Avoid direct contact. Wear chemical protective clothing if necessary. Wash gently and thoroughly with lukewarm, gently flowing water and mild soap for 5 minutes.

Eye Contact

Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open.

Ingestion

Rinse mouth with water. Call a Poison Centre or doctor if you feel unwell.

First-aid Comments

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

Most Important Symptoms and Effects, Acute and Delayed

Symptoms include slight redness and swelling. Skin sensitizer. May cause an allergic skin reaction in some people.

Immediate Medical Attention and Special Treatment

Target Organs

Respiratory system.

Medical Conditions Aggravated by Exposure

None known.

Product Identifier: AV-102 Catalyst AP - Ver. 1

Date of Preparation: March 07, 2018

Date of Last Revision: May 07, 2018

Page 02 of 07

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Not combustible. Use extinguishing agent suitable for surrounding fire. Use flooding quantities of water spray or fog.

Unsuitable Extinguishing Media

None known.

Specific Hazards Arising from the Product

Oxidizer. Releases oxygen to create an oxygen-rich atmosphere. Will cause combustible materials to ignite more readily. May intensify fire. Closed containers may rupture violently when heated releasing contents.

Very toxic carbon monoxide, carbon dioxide; corrosive, flammable ammonia; flammable hydrogen; corrosive, oxidizing nitrogen oxides; corrosive sulfur oxides.

Special Protective Equipment and Precautions for Fire-fighters

Use extreme caution. Evacuate area. Approach fire from upwind to avoid hazardous vapours or gases. Oxidizer. Prevent contact with flammable and combustible materials.

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

Evacuate the area immediately. Isolate the hazard area. Keep out unnecessary and unprotected personnel. Increase ventilation to area or move leaking container to a well-ventilated and secure area.

Environmental Precautions

Do not allow into any sewer, on the ground or into any waterway.

Methods and Materials for Containment and Cleaning Up

Avoid generating dust. Collect using shovel/scoop or approved HEPA vacuum and place in a suitable container for disposal. Store recovered product in suitable containers that are: covered.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

Obtain special instructions before use. Avoid breathing in this product. Avoid repeated or prolonged skin contact. Do not swallow. Avoid generating dusts. If product is transferred to another container, ensure new container is suitable for the product. General hygiene considerations: do NOT eat, drink or store food in work areas. Do NOT smoke in work areas. Wash hands thoroughly after handling this product and before eating, using the washroom or leaving work area.

Conditions for Safe Storage

Store in an area that is: cool, dry, well-ventilated, separate from incompatible materials (see Section 10: Stability and Reactivity).

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Chemical Name	ACGIH TLV®		OSHA PEL		AIHA WEEL	
	TWA	STEL	TWA	Ceiling	8-hr TWA	TWA
Ammonium persulfate	0.1 mg/m3					

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

Skin Protection

Product Identifier: AV-102 Catalyst AP - Ver. 1

Date of Preparation: March 07, 2018

Date of Last Revision: May 07, 2018

Page 03 of 07

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

Chemical Resistant Gloves: Suitable materials are: butyl rubber, nitrile rubber. Chemical Resistant Suit: Tychem® SL (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	White crystalline crystals. Particle Size: Not available
Odour	Odourless
Odour Threshold	Not available
pH	3.2 (10% solution)
Melting Point/Freezing Point	248 °F (120 °C) (melting)
Initial Boiling Point/Range	Not applicable
Flash Point	Not applicable
Evaporation Rate	Not available
Flammability (solid, gas)	Will not burn.
Upper/Lower Flammability or Explosive Limit	Not applicable (upper); Not applicable (lower)
Vapour Pressure	Not available
Vapour Density (air = 1)	Not available
Relative Density (water = 1)	1.982
Solubility	835 g/L (Very soluble) in water; Not available (in other liquids)
Partition Coefficient, n-Octanol/Water (Log Kow)	Not available
Auto-ignition Temperature	Not available
Decomposition Temperature	248 °F (120 °C)
Viscosity	Not applicable (kinematic); Not applicable (dynamic)
Other Information	
Physical State	Solid
Molecular Formula	H8N2O8S2
Molecular Weight	228.2
Surface Tension	Not available
Critical Temperature	Not available
Electrical Conductivity	Not available
Vapour Pressure at 50 deg C	Not available
Saturated Vapour Concentration	Not available

SECTION 10. STABILITY AND REACTIVITY

Reactivity

Oxidizer.

Chemical Stability

Normally stable.

Possibility of Hazardous Reactions

Reacts violently in the presence of alkaline conditions (high pH).

Product Identifier: AV-102 Catalyst AP - Ver. 1

Date of Preparation: March 07, 2018

Date of Last Revision: May 07, 2018

Page 04 of 07

Conditions to Avoid

Water, moisture or humidity. Prolonged contact with water, moisture or humidity. Heat.

Incompatible Materials

Reacts violently with: amines (e.g. triethylamine), alkanolamines (e.g. triethanolamine), ammonia, metals (e.g. aluminum), oxidizing agents (e.g. peroxides), reducing agents (e.g. hydroquinone), strong acids (e.g. hydrochloric acid), strong bases (e.g. sodium hydroxide).

Corrosive to: aluminum alloys, zinc, iron, carbon steel, copper, copper alloys (e.g. brass and/or bronze), zinc alloys.

Hazardous Decomposition Products

Oxygen (a strong oxidizer); corrosive sulfur oxides; corrosive, oxidizing nitrogen oxides; corrosive, flammable ammonia.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure

Inhalation; skin contact; eye contact; ingestion.

Acute Toxicity

Chemical Name	LC50	LD50 (oral)	LD50 (dermal)
Ammonium persulfate		689 mg/kg (rat)	

Skin Corrosion/Irritation

Human experience shows moderate or severe irritation. Animal tests show very mild irritation.

Serious Eye Damage/Irritation

Animal tests show serious eye irritation.

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation

May cause nose and throat irritation, lung injury.

Skin Absorption

Causes Symptoms may include redness, rash, swelling and itching.

Ingestion

Causes irritation of the mouth, throat and stomach. Symptoms may include nausea, vomiting, stomach cramps and diarrhea.

Aspiration Hazard

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

STOT (Specific Target Organ Toxicity) - Repeated Exposure

No information was located.

Respiratory and/or Skin Sensitization

Skin sensitizer. In sensitized people, contact with a very small amount of product can cause an allergic reaction. Symptoms include redness, rash, itching and swelling. This reaction can spread from the hands or arms to the face and body. Repeated exposure will make the reaction worse. No information was located for respiratory sensitization.

Carcinogenicity

Chemical Name	IARC	ACGIH®	NTP	OSHA
Ammonium persulfate	Not Listed	Not Listed	Not Listed	Not Listed

Reproductive Toxicity

Development of Offspring

No information was located.

Sexual Function and Fertility

No information was located.

Effects on or via Lactation

Product Identifier: AV-102 Catalyst AP - Ver. 1

Date of Preparation: March 07, 2018

Date of Last Revision: May 07, 2018

Page 05 of 07

No information was located.

Germ Cell Mutagenicity

No information was located.

Interactive Effects

No information was located.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Harmful to aquatic life.

Acute Aquatic Toxicity

Chemical Name	LC50 Fish	EC50 Crustacea	ErC50 Aquatic Plants	ErC50 Algae
Ammonium persulfate	76 mg/L (Oncorhynchus mykiss (rainbow trout); 96-hour)	120 mg/L (Daphnia magna (water flea); 48-hour)		

Persistence and Degradability

No ingredient of this product or its degradation products is known to be highly persistent.

Bioaccumulative Potential

This product and its degradation products are not known to bioaccumulate.

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.

SECTION 14. TRANSPORT INFORMATION

Regulation	UN No.	Proper Shipping Name	Transport Hazard Class(es)	Packing Group
Canadian TDG	1444	Ammonium Persulfate (Ammonium persulfate)	5.1	III
US DOT	1444	Ammonium Persulfate (Ammonium persulfate)	5.1	III

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)

Listed on the DSL.

Product Identifier: AV-102 Catalyst AP - Ver. 1

Date of Preparation: March 07, 2018

Date of Last Revision: May 07, 2018

USA

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

Listed on the TSCA Inventory.

SECTION 16. OTHER INFORMATION

NFPA Rating **Health - 1** **Flammability - 0** **Instability - 1**

Special Hazard - Oxidizing

SDS Prepared By Avanti International

Date of Preparation March 07, 2018

Date of Last Revision May 07, 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
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).