



ADVANCED POLYMER, INC.

GET THE API ADVANTAGE . . .

APG-658

Auto & Marine Care—See pages 1-2
Architectural Applications—See pages 3-4
Packaging—See page 5

APG-658 is a solvent-based fluorochemical resin solution designed to impart oil and water resistance to apparel, carpeting and automotive fabrics. APG-658 is best suited for use on cotton, polyester, nylon, wool and silk. APG-658 was designed for pump spray or roller coat applications. APG-658 contains no ozone depleting materials.

CHARACTERISTICS:

- Excellent water and oil repellency on various substrates with very good durability.
- Will cure at room temperature.

APPLICATION:

*****Do not aerosolize APG-658*****

- Inhalation of this product may cause severe illness or death.
- Do not aerosolize this product. This means use airless sprayers with less than 50 psi.
- Avoid breathing vapor or spray mist. This means wear a respirator and use proper ventilation.
- Avoid contact with eyes or skin. This means wear glasses or goggles, gloves and other protective clothing.
- Avoid contamination of tobacco products. Wash hands thoroughly before smoking.
- Use the proper equipment. This includes: exhaust fan, low pressure airless sprayer, respirator with organic vapor cartridge, glasses or goggles, gloves and protective clothing
- Before you start spraying: set up cross ventilation, open doors and windows, place a fan blowing out of a window or door to increase exhaust. Remove all people and animals from the exposure area. All personnel in the exposure area wear a proper fitting respirator with organic vapor cartridge. Turn off air conditioning or heating units and remove all ignition sources.
- After spraying, solvent will continue to evaporate, so you must do the following until the solvent vapor concentration is below 300 ppm (about 30-60 minutes): Continue cross ventilation. Keep people and animals out of the spray area. Continue to wear respirators in the spray area. Do not expose the treated fabric to open flame or other ignition sources (such as, matches, or cigarette lighters).

TYPICAL PROPERTIES

Appearance:	Clear Yellow Fluid
Solid Content:	18.5%
Solvent: Mineral Spirits	81.5%
Specific Gravity:	0.82

Advanced Polymer, Inc.
400 Paterson Plank Road
Carlstadt, NJ 07072
Phone: (201) 933-0600
Fax: (201) 933-8442
www.advpolymer.com



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The following dilution ratios may be applied (on weight basis):
 Cotton/Polyester/Nylon/Acrylic 3% - 13%

PERFORMANCE DATA:

APG-658 was diluted with odorless mineral spirits to a 2% solids (non-volatile) level. The dilution was then applied to acrylic fabric specimens by pump spray. The samples were allowed to air dry for approximately 24 hours and evaluated for oil and water repellency.

Fluoropolymer Concentration (%)	Water Repellency Rating	Oil Repellency Rating
2% solids (APG-658)	8.4	5

Five acrylic swatches were treated and rated for oil and water repellency. An average water and oil rating was calculated, the results are as follows:

Water Rating Number	IPA Concentration	Water Concentration
1	2%	98%
2	5%	95%
3	10%	90%
4	20%	80%
5	30%	70%
6	40%	60%
7	50%	50%
8	60%	40%
9	70%	30%
10	80%	20%

Oil Rating Number	Oil Composition
1	Kaydol (Mineral Oil)
2	65/35 Kaydol/n-Hexadecane
3	n-Hexadecane
4	n-Tetradecane
5	n-Dodecane
6	n-Decane
7	n-Octane
8	n-Heptane

The water and oil repellency rating numbers are based on the following:

Procedures for Determining Oil and Water Repellency:

Beginning with the highest numbered test liquid, carefully place one drop in several locations on the fabric. Repeat with lower numbered liquids until the lowest number that does not wet out the surface {in 30 seconds (oil) or 10 seconds (water)} is reached.



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APG-658 is a clear impregnating agent for protection of stone and other hard surfaces against penetration of water, oils, grease and humidity. APG-658 lets the stone breathe; does not allow the efflorescence to exit from the stone; it penetrates deeply into the stone, does not change the original color of the stone keeping the original color. The treated stone does not change its color after long exposure to UV rays. It prevents formation of mildew. APG-658 was designed for pump spray or roller coat applications. APG-658 contains no ozone depleting materials.

CHARACTERISTICS

- Excellent oil resistance and water holdout.
- Will cure at room temperature.
- Provides invisible “natural look protection” for all very porous and semi porous stone.

APPLICATIONS

- Marble, Limestone, Concrete/Masonry
- Agglomerated and Engineered Stones
- Granite, Terrazzo, Grout

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INSTRUCTION FOR USE

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Formulation suggestion for clear sealer for masonry:

Ingredient	Weight (%)
APG-658	10
Mineral Spirits	90

- Surface must be clean and dry. Stains, mildew and crusting must be scraped off otherwise they will be harder to remove.
- Use only in well ventilated areas. Temperature of the surface must be between 50°F and 80°F (10 – 26°C). Consult MSDS to follow your national laws concerning safety in the working place.
- Always test in small inconspicuous to determine the effectiveness and desired results prior to use. When testing allow the coated surface to dry for 24 hours.
- Application can be done by brush, roller or by spray gun although application by brush is preferable when possible because it allows the product to penetrate well into the stone.
- Apply the product to complete saturation of the stone. For maximum protection, it is better to perform second application after one hour from the first coating especially to porous surfaces.
- Remove excess product from the surface immediately using soft dry cloth.
- Full cure requires at least 24 hours.



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PACKAGING

APG-658 is available in 8 oz. samples and 331-lb. drums.

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I want to know more!

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You may also be
interested in . . .

- **APG-1430**

Revised February 23, 2010

APG-658

Section I Product Identity

Product Name: APG-658
Chemical Name/Family: Perfluoroalkyl acrylate copolymer solution
CAS Registry: Mixture
24 Hour Emergency Number 800-424-9300
24 Hour Chemtrec Number 800-424-9300

All ingredients are listed in EPA's TSCA list of chemical substances

Section II Hazardous Components/Composition Information

CHEMICAL	Mineral Spirits			
CAS #: 64742-88-7	OSHA PEL (TWA): 100 ppm	ACGIH TLV: 100 ppm	PERCENT: 51	
CHEMICAL	Synthetic isoparaffinic hydrocarbon			
CAS #: 64742-94-5	USOS:	TWA:	STEL:	PERCENT: 30.5
CHEMICAL	Perfluoroalkyl acrylate copolymer			
CAS #: Not listed	USOS:	TWA: 100 ppm	STEL:	PERCENT: 18.5

Section III Physical and Chemical Properties

Boiling Point	100-200°C (Mineral Spirits)
Specific Gravity (H ₂ O=1)	0.82
Vapor Pressure	N.D.
Vapor Density (Air=1)	N.D.
Percent Volatile By Weight	N.D.
Evaporation Rate (BuAc=1)	N.D.
Solubility in Water	Insoluble
Appearance and Odor	Pale yellow liquid with slight petroleum odor.

Section IV Fire and Explosion Hazard Data

Flash Point (Method Used)	110°F (Closed Cup)
Flammable Limits in Air (% By Volume)	N.D.
Extinguishing Media	Foam, Dry Chemical, CO ₂ . Water may be ineffective.
Special Fire Fighting Procedures:	Evacuate personnel to a safe area. A self-contained breathing apparatus and protective clothing must be worn in fighting fires involving chemicals.
Unusual Fire and Explosion Hazard	Heating above 395°F in a fire situation may cause toxic decomposition.

Section V Reactivity Data

Stability	Stable
Conditions to Avoid	Strong acids and alkalis
Incompatibilities	Strong acids and alkalis
Hazardous Decomposition or By Products	Combustion may produce HF, CO ₂ , CO and other toxic products.
Hazardous Polymerization	May Not Occur

Section VI Health Hazard Data

Primary Routes of Entry	Inhalation: Yes	Dermal: Yes	Ingestion: Yes
Acute Health Hazard	See below:		
Other Potential Hazards:	Mutagenicity (AMES Assay)	Now evaluating	
	Acute oral toxicity (LD50)	Mineral Spirits: Rat: >2000mg/kg Polymer: Now evaluating	
	Acute inhalation toxicity (LD50)	Mineral Spirits: Rat: >2000 mg/L Polymer: N.A.	
Chronic Health Hazard	No information available		
Carcinogenicity	No information available		
NTP: No	IARC Monograph: No	OSHA Regulated: No	

Signs and Symptoms of Exposure:

Skin Contact	Slight skin irritation is expected.
Eye Contact	The vapor or mist from APG-658 may irritate eyes.
Ingestion	Harmful. If this product is swallowed, vomiting will occur.
Inhalation	If vapor or mist is inhaled respiratory irritation may occur. Symptoms such as anesthesia and acute lung edema may occur.

Medical Condition Generally Aggravated by Exposure

No information available.

Emergency First Aid Procedures

Eyes	Immediately flush eyes with plenty of water. Seek medical attention.
Skin	Immediately wash with soap and water. Wash contaminated clothing before reuse.
Ingestion	Do not induce vomiting. Do not give anything by mouth to an unconscious person. Call a physician.
Inhalation	Immediately remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen. Please note: Symptoms may be delayed; prompt medical attention may be required. Call a physician.

Section VII Precautions for Safe Handling and Use

Steps to be Taken in Case the Material is Released or Spilled:

Soak up with sawdust, sand, oil dry or other absorbent material..

Waste Disposal Method:

As in accordance with EPA and local regulations.

Section VIII Special Precautions

Storage Conditions:

Store at temperatures between 40°F (4.4°C) to 110°F (43.3°C). Store in a tightly closed container. Store in a well ventilated area. Store away from oxidizing agents, sources of heat, direct sunlight or rain. No smoking in area of storage. ***Agitate contents of container before using. *** **Do not aerosolize APG-658.**

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Section IX Control Measures

Respiratory Protection

Ventilation	Local exhaust	Required
	Mechanical	Adequate ventilation system
	Special	Protective mask with organic vapor cartridge for organic vapor above exposure limits
	Other	None
Eye Protection	Safety glasses, goggles and/or face shield should be worn	
Protective Gloves	Imperivous gloves should be worn	
Protective Clothing	Rubber apron, boots or coveralls as necessary to prevent skin contact.	
Other Protective Equipment	NIOSH/MSHA approved respirator is required. Eye wash equipment.	
Other Precautions	Wash hands thoroughly after handling material	

Section X SARA Title III

SECTION 313 SUPPLIER NOTIFICATION

This product contains the following toxic chemicals subject to the reporting requirements of SECTION 331 of the EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT OF 1986 and of 40 CFR 371

CAS #

Chemical Name

Percent by Weight

THIS INFORMATION MUST BE INCLUDED IN ALL MSDS'S THAT ARE COPIED AND DISTRIBUTED FOR THIS MATERIAL:

TSCA INVENTORY: All components are registered.

EINECS 1987 LIST: All components are registered.

Section XI Transportation Information

SHIPPING INFORMATION

DOT Proper Shipping Name:

Petroleum Distillates, N.O.S., Combustible Liquid, UN1268, PGIII

In containers of 119 gallons or less APG-658 is not regulated by DOT.

DOT/IMO Proper Shipping Name:

Petroleum Distillates, N.O.S., Class 3, Flammable Liquid, UN1268, PGIII

International shipments, shipments by air, and shipments in container of more than 119 gallons, this product is regulated by DOT and must ship as a flammable liquid (see hazard class under the proper shipping name).

Hazard Ratings

Health	1
Flammability	2
Reactivity	0

Date PreparedSeptember 20, 2005

Prepared ByAPI

Date RevisedNovember 25, 2009

Revised ByAPI

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TO THE CUSTOMERS OF ADVANCED POLYMER, INC.

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