



ADVANCED POLYMER, INC.

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APG-5295

APG-5295 is a water-based fluorochemical designed for use as a water and oil repellent finishing agent. APG-5295 is designed to protect home furnishing fabrics, leather and carpets, and automotive upholstery from wet and dry soiling, and to impart water and oil repellency. APG-5295 produces a durable finish, helping treated surfaces to retain their fresh new look longer.

CHARACTERISTICS

- APG-5295 will dry and cure at ambient temperatures. APG-5295 does not require high heat curing to produce water, oil and soil resistant properties.
- APG-5295 is versatile. A single product that is effective on all types of substrates.
- APG-5295 is easy to use as a result of the fine particle size emulsion. APG-5295 dilutes readily in water for pump spray/air-dry applications.
- APG-5295 is non-flammable.

APPLICATION

Application can be done by spraying, followed by complete drying at ambient temperature. Add-on levels depend on fiber and construction, as well as the level of performance desired. In general, 4 to 10 ounces/gallon dilution is sprayed at approximately 2 ounces/square yard, followed by air drying. A uniform spray is essential to insure an even, optimum treatment.

PERFORMANCE DATA

- Fabric specimens of 100% Cotton Sheeting, 50%/50% Cotton/Polyester, and 100% Nylon 66 were treated with APG-5295 at 1 % and 2% fluoropolymer solids.
- Each dilution was applied by spray. Approximately 90% to 100% ($\pm 10\%$) wet pickup was achieved.
- Samples were allowed to air dry for approximately 18 hours, and then evaluated for oil and water repellency using the following procedure:

TYPICAL PROPERTIES

| | |
|---------------------------|---------------------------|
| Appearance: | Off white, milky emulsion |
| Ionic Nature: | Nonionic |
| Solid Content: | 17% |
| pH: | 5.1 |
| Specific Gravity: | 1.04 |
| Volatile Organic Content: | ≤ 50 g/l |

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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Procedures for Determining Oil and Water Repellency:

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

| Water & Oil Repellency Test Results for APG-5295 | | |
|--|-------------------------|-----------------------|
| Fluoropolymer Concentration (%) | Water Repellency Rating | Oil Repellency Rating |
| 1% on Cotton | 12 | 6 |
| 1% on Cotton/Polyester | 10 | 5 |
| 1% on Nylon | 11 | 5 |
| 2% on Cotton | 12 | 7 |
| 2% on Cotton/Polyester | 11 | 6 |
| 2% on Nylon | 11 | 5 |

Oil repellency rating numbers are based on the following:

| Oil Repellency Oil Rating Number* | IPA Concentration |
|-----------------------------------|---------------------------|
| 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 |



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Water repellency rating numbers are based on the following:

| 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% |
| 11 | 90% | 10% |
| 12 | 100% | 0% |

STORAGE

When stored in a sealed container at temperatures between 5°C and 30°C, APG-5295 has a prolonged shelf life.

PACKAGING

APG-5295 is available in 8 oz. samples and 441-lb. drums.

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Tel: (201) 933-0600
Fax: (201) 933-8442
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APG-658

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Revised April 6, 2011

APG-5295

Section I Product Identity

Product Name: APG-5295
Chemical Name/Family: Perfluoroalkylacrylate emulsion
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 : | CAS #: | USOS: | TWA: | PEL: | PERCENT: |
|------------------|---------|-------|------|------|----------|
| Propylene Glycol | 57-55-6 | | | | 3 - 5 |

Section III Physical and Chemical Properties

| | |
|---------------------------------------|--|
| Boiling Point | 212°F |
| Specific Gravity (H ₂ O=1) | 1.04 |
| Vapor Pressure | ND |
| Vapor Density (Air=1) | ND |
| Percent Volatile By Weight | 83 |
| Evaporation Rate (Water=1) | Approximately 1 |
| Solubility in Water | Miscible |
| Percent Solids by Weight | 17 |
| Appearance and Odor | Off white milky liquid, with sweetish odor |

Section IV Fire and Explosion Hazard Data

| | |
|---------------------------------------|--|
| Flash Point (Method Used) | No flash point below boiling point. |
| Flammable Limits in Air (% by Volume) | ND |
| Extinguishing Media | Water spray, foam, dry chemical powder, or carbon dioxide. |
| Special Fire Fighting Procedures | A self-contained breathing apparatus and protective clothing must be worn in fighting fires involving chemicals. Move containers from fire if it can be done without risk. Use water to keep fire-exposed containers cool. |
| Unusual Fire and Explosion Hazard | No information available. |

Section V Reactivity Data

| | |
|--|---|
| Stability | Stable |
| Conditions to Avoid | Overheating, freezing |
| Incompatibilities | Oxidizing materials. |
| Hazardous Decomposition or By Products | In case of fire or extreme heat, the following may be produced: oxide of carbon and toxic products such as HF and perfluorinated organic compounds. |
| Hazardous Polymerization | May Not Occur |

Section VI Health hazard Data

| | | | |
|-------------------------|--------------------------|--------------------|----------------|
| Primary Routes of Entry | Inhalation: Yes | Dermal: Yes | Ingestion: Yes |
| Acute Health hazard | No information available | | |
| Chronic Health Hazard | No information available | | |
| Carcinogenicity | | | |
| NTP: No | IARC Monograph: No | OSHA Regulated: No | |

Signs and Symptoms of Exposure:

| | |
|--------------|------------------------------|
| Skin Contact | May be harmful. |
| Eye Contact | Causes irritation. |
| Ingestion | May be harmful if swallowed. |
| Inhalation | May be harmful if inhaled. |

Medical Condition Generally Aggravated by Exposure

No information available

Emergency First Aid Procedures

| | |
|------------|--|
| Eyes | Immediately flush eyes with plenty of water for at least 15 minutes. Seek medical attention. |
| Skin | Wash with soap and water |
| Ingestion | Do not induce vomiting. Immediately give 2 glasses of water. Never 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. Dike and contain spilled material. Prevent liquid from entering sewers or waterways. Flush area with water to remove trace residue.

Waste Disposal Method:

Dispose of according to EPA, State and local regulations.

Section VIII Special Precautions

Precautions to be Taken in Handling and Storage:

HANDLING: In spray applications, use airless type pressure spray equipment with spray tip pressure less than 50 psi, and exhaust ducts, drip pans or other design features to prevent worker exposure to mists and overspray. Do not produce respirable particles unless suitable ventilation and respirator are used.

STORAGE: Store at temperatures between 40°F (4.4°C) to 110°F (43.3°C). Store in a tightly closed container 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.****

Section IX Control Measures

| | |
|----------------------------|--|
| Respiratory Protection | Where respirator where vaporizing occurs. |
| Ventilation | Local exhaust Recommended where vaporizing occurs |
| | Mechanical General ventilation is recommended |
| | Special None |
| | Other None |
| Eye Protection | Safety goggles should be worn. |
| Protective Gloves | Impervious gloves should be worn. |
| Protective Clothing | Apron, boots or coveralls are necessary to prevent skin contact. |
| Other Protective Equipment | Eye wash station should be available. |
| Other Precautions | Wash hands thoroughly after use. |

Section X SARA Title III

SECTION 313 SUPPLIER NOTIFICATION

This product contains the following toxic chemicals subject to the reporting requirements of SECTION 313 of the EMERGENCY PLANNING AND COMMUNIUTY 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

Section XI Transportation Information

SHIPPING INFORMATION APG-5295 is not regulated by DOT.

Hazard Ratings

| | |
|--------------|---|
| Health | 1 |
| Flammability | 0 |
| Reactivity | 0 |

Date Prepared February 3, 2011

Prepared By API

Date Revised April 6, 2011

Revised By API

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