

APS-297

Section 1. Product and Company Identification

| Product Name: | APS-297 |
|--------------------------|----------------------------------------------------|
| Chemical Name/Family: | Alkyl-aryl functional silicone fluid |
| CAS No.: | Proprietary |
| Product Use: | Release Agent |
| Restrictions: | For Industrial Use Only |
| Company: | Advanced Polymer. |
| Address: | 400 Paterson Plank Road Carlstadt, NJ 07072 U.S.A. |
| Telephone: | 201-933-0600 |
| Fax: | 201-933-8442 |
| 24 Hour Emergency Number | 800-424-9300 |
| 24 Hour Chemtrec Number | 800-424-9300 |

Section 2. Hazards Identification

GHS Classifcation:

| Flammable Liquids | Category 4 |
|----------------------|------------|
| Acute toxicity, oral | Category 4 |
| Carcinogenicity | Category 2 |

GHS Label:



Signal Word: Warning

Hazard Classification:

Hazard Statement:

Combustible liquid

Harmful if swallowed

Suspected of causing cancer

Precautionary Statement:

Prevention



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

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

Wash hands thoroughly after handling.

Do not eat, drink or smoke when using this product.

Obtain special instructions before use.

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

Use personal protective equipment as required.

Response

In case of fire: Use carbon dioxide, dry chemical and alcohol-resistant foam for extinction.

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

Rinse mouth.

If exposed or concerned get medical advice/attention if you feel unwell.

Storage

Store in a well-ventilated place. Keep container tightly closed. Store locked up.

Disposal

Dispose of contents/container in accordance with local/regional /national/international regulations.

Section 3. Composition/Information on Ingredients

| Ingredients | CAS No. | Percent |
|-----------------|---------|------------|
| α-Methylstyrene | 98-83-9 | >0.09 <1.0 |

Section 4. First Aid Measures

| Skin Contact: | Wash contacted skin areas with soap and water. If irritation develops, consult a physician. Soaked clothing should be removed. |
|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Eye Contact: | Flush eyes immediately with water, at least 15 minutes or until irritation subside. If irritation persists, consult a physician. |
| Inhalation: | Rescuers should put on appropriate protective gear. In all cases, remove source of exposure. Inhalation is not likely to occur except as a mist. Remove patient to fresh air and consult a physician. If breathing is difficult, administer oxygen. If not breathing, give artificial respiration. |
| Ingestion: | If swallowed, do NOT induce vomiting. Give victim a glass of water or milk. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person. |

Section 5. Firefighting Measures

| Specific Hazards in Case of Fire: | Use with caution. This material may produce a floating fire hazard in extreme fire conditions. |
|-----------------------------------|-----------------------------------------------------------------------------------------------------------------|
| Fire Extinguishing Media: | Carbon Dioxide, Dry chemical, Alcohol-resistant Foam; For large fires: Use foam (alcohol, polymer, or ordinary) |
| Unsuitable Extinguishing Media: | Avoid use of solid water streams. Water spray may spread oil fires. |



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| Special Protective Equipment and Precaution for Firefighters: | As in any fire, wear self-contained breathing apparatus pressure-demand (MSHA/NIOSH approved or equivalent) and full protective gear. Water spray to cool containers or protect personnel. |
|------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Unusual Fire & Explosion Hazards: | Flammable liquid and vapor. Vapors/dust may form explosive mixture with air. Empty containers retain product residue (liquid and/or vapor) and can be dangerous. DO NOT pressurize, cut, weld braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. Also, do not reuse container without commercial cleaning or reconditioning. Closed container may explode under extreme heat. Can release vapors that form explosive mixtures at or above the flashpoint. |

Section 6. Accidental Release Measures

| Personal Precautions: | Use only non-combustible material for clean-up. Remove from surface by skimming or with suitable absorbents. Recover by pumping (use an explosion proof or hand pump). Use clean, non-sparking tools to collect absorbed materials. Eliminate all ignition sources. Prevent additional discharge of material if able to do so safely. If leak or spill has not ignited, use water spray to disperse the vapors. Do not touch or walk through spilled material. Stay upwind of spill. A vapor suppressing foam may be used to reduce vapors. Evacuate unnecessary personnel. |
|-----------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Protective Equipment: | Wear appropriate personal protective equipment. (See Exposure Controls/ |
| | Personal Protection Section.) |
| Environmental Precautions: | Avoid runoff into storm sewers and ditches which lead to waterways. |
| Methods and Materials for Containment and Cleaning up: | For large spills, provide diking or other appropriate containment to keep material from spreading. If diked material can be pumped, store recovered material in appropriate container. Clean up remaining materials from spill with suitable absorbent. |
| | Materials in contact with water, moisture, acids or bases have the potential to generate hydrogen gas. Recovered material should be stored in a vented container. Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable. |

Section 7. Handling and Storage

| Handling Conditions: | Use only in a well ventilated area. Wash thoroughly after handling. Take |
|----------------------|---------------------------------------------------------------------------------|
| | precautionary measures against static discharge. |
| Storage Conditions: | Containers can build up pressure if exposed to heat (fire). Keep away from |
| | heat, sparks, and flame. Keep container closed when not in use. Protect from |
| | direct sunlight. Store containers in a cool well ventilated place. Static |
| | Discharge, materials can accumulate static charges which can cause an |
| | incendiary electrical discharge. Material is a static accumulator which has the |
| | potential of forming ignitable vapor-air mixtures in storage tanks. Keep away |
| | from water. Protect from moisture. Take care to prevent spills, waste and |
| | minimized release to the environment. |



Section 8. Exposure Control/Personal Protection

| Exposure Limits: | α-Methyl styrene, CAS No. 98-83-9 TWA: 50 ppm, 240 mg/m3 NIOSH REL ST: 100 ppm, 485 mg/m3 NIOSH REL C: 100 ppm, 480 mg/m3 OSHAZ-1 |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Appropriate engineering | General and local exhaust ventilation is recommended to maintain vapor |
| controls: | exposures below recommended limits. |
| Personal protective equipment: | |
| Respiratory Protection: | Where concentrations are above recommended limits or are unknown, |
| | appropriate respiratory protection should be worn. Follow OSHA respirator |
| | regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. |
| | Protection provided by air purifying respirators against exposure to any |
| | hazardous chemical is limited. Use a positive pressure air supplied respirator |
| | if there is any potential for uncontrolled release, exposure levels are |
| | unknown, or any other circumstance where air purifying respirators may not |
| | provide adequate protection. |
| Hand Protection: | Wear impervious gloves to prevent contact with the skin. |
| Eye Protection: | Wear safety glasses with side shields (or goggles) and a face shield. |
| Skin and Body Protection: | Wear protective gear as needed - apron, suit, boots. Wear long sleeves when |
| | contact is likely to occur. |
| Other Protective Equipment: | Eye wash equipment and safety shower. |
| Hygiene Measures: | Wash thoroughly after handling. Wash hands before eating. Remove contaminated clothing and wash before reuse. Avoid breathing vapors. Do not eat, drink, or smoke in areas where this material is used. Avoid inhalation of vapor or mist. Handle in accordance with good industrial hygiene and safety practice. |

Section 9. Physical and Chemical Properties

| Physical State: | Liquid |
|----------------------------|--------------------------|
| Color: | Clear to slightly hazy |
| Odor: | Slight odor |
| Odor Threshold: | No information available |
| % Non-volatile by Weight: | No information available |
| pH: | No information available |
| Specific Gravity (77°F): | 1.00 |
| % Volatile by Weight: | 0.5 Max. |
| Melting Point: | No information available |
| Freezing Point: | No information available |
| Boiling point: | 260 - 556°F |
| Flash Point: | 170°F |
| Evaporation Rate (BuAc=1): | No information available |
| Flammability: | No information available |
| Explosion Limits: | No information available |



| Vapor Pressure (mmHg): | No information available |
|----------------------------|--------------------------|
| Vapor Density (Air=1): | No information available |
| Solubility: | Not soluble |
| Partition Coefficient: | No information available |
| Auto-ignition Temperature: | No information available |
| Viscosity: | No information available |
| Decomposition Temperature: | No information available |

Section 10. Stability and Reactivity

| Chemical Stability: | Stable |
|-----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| Hazardous Polymerization: | May not occur |
| Conditions to Avoid: | Avoid exposure to moisture, friction, heat, sparks, flame and source of ignition. Use at elevated temperatures may form highly hazardous compounds. |
| Incompatible Materials: | Prevent contact with oxidizing agents. It can react with strong oxidizing agents. |
| Hazardous Decomposition Products: | Hazardous decomposition products will be formed at elevated temperatures. During thermal decomposition formaldehyde may form. |

Section 11. Toxicological Information

Primary Routes of Entry:

| Fillinary Nou | | | | | | | | |
|---------------|---------------|------------------------------------------------------|-------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|----------------|------------------|------|--|
| Eye: | No | Skin: | No | Inhalation: | No | Ingestion: | Yes | |
| Potential He | alth Effects: | | | · | | · | | |
| Inhalation | | | No informati | on available | | | | |
| Ingestion: | | | Although ingestion is unlikely, liquid would irritate upper digestive tract if swallowed. | | | | | |
| Skin: | | | Prolonged ar | Prolonged and repeated contact with skin can cause defatting and drying | | | | |
| | | | of the skin re | esulting in skin irrit | tation and de | ermatitis. | | |
| Eyes: | | | Preexisting eye disorder may be aggravated by exposure to this product. | | | | | |
| Signs and Sy | mptoms of | Exposures: | | | | | | |
| Acute Toxici | ty: | | α-Methylstyrene, CAS No. 98-83-9 | | | | | |
| | | | Acute oral toxicity – LD5O (Rat): 4,900 mg/kg | | | | | |
| | | | Acute inhalation toxicity – LC5O (Rat): 22.8S mg/I | | | | | |
| | | | Exposure time: 6hrs, Test atmosphere: vapor | | | | | |
| | | Acute dermal toxicity – LD5O (Rabbit): > 5,000 mg/kg | | | | | | |
| | | | Rabbit - Irritation to eyes, reversing within 7 days | | | | | |
| | | | Rabbit - | No skin irritation b | based on test | data | | |
| Chronic Toxi | icity: | | Not classified based on available information | | | | | |
| | | a-Methylstyrene | | | | | | |
| | | | Rat (ing | estion) - OECD Te | st Guideline 4 | 422; 43 days | | |
| | | | NOAEI | .: 40 mg/kg | | | | |
| | | | LOA EI | .: 200 mg/kg | | | | |
| | | | Rat (inh | alation - vapor) - (| OECD Test Gu | uideline 413; 90 | days | |
| | | | NOAEL: 1.45 mg/l | | | | | |



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| Respiratory or Skin Sensitization: | Skin sensitization - Not classified based on available information |
|------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| | Respiratory sensitization - Not classified based on available information |
| Mutagenicity: | Not classified based on available information |
| | α-Methylstyrene, CAS No. 98-83-9 |
| | Genotoxicity in vitro |
| | Bacterial reverse mutation assay (AMES): Negative |
| | Mammalian erythrocyte micronucleus test (in vivo cytogenetic |
| | assay) OECD Test Guideline 474 - Mouse (inhalation): Negative |
| Reproductive Toxicity: | Not classified based on available information |
| | α-Methylstyrene |
| | Effects on fertility |
| | Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test - OECD Test Guideline 422. |
| | Rat (ingestion): Negative |
| | Effects on fetal development |
| | Combined repeated dose toxicity study with the reproduction/ |
| | developmental toxicity screening test - OECD Test Guideline 422. |
| | Rat (ingestion): Negative |
| Carainaganisitu | |

Carcinogenicity:

| IARC: | 2B | NTP: | No | OSHA: | No |
|-------|-----------------|------|----|-------|----|
| | α-Methylstyrene | | | | |

Section 12. Ecological Information

| Ecotoxicity (Aquatic and Terrestrial): | α-Methylstyrene |
|----------------------------------------|----------------------------------------------------------------------------------------------|
| | Toxicity to fish: |
| | LC50 (Danio rerio (zebra fish)): 2.97 mg/I; 96hrs |
| | (OECD Test Guideline 203) |
| | Toxicity to daphnia and other aquatic invertebrates: |
| | EC50 (Daphnia magna (Water flea)): 1.645 mg/I; 48hrs |
| | (OECD Test Guideline 202) |
| | Toxicity to algae: |
| | EC50 (Desmodesmus subspicatus (green algae)); 4.347 mg/l 72hrs; (OECD Test Guideline 201) |
| | NOEC (Desmodesmus subspicatus (green algae)); 2.26 mg/l |
| | 72hrs; (OECD Test Guideline 201) |
| | Toxicity to fish (Chronic Toxicity): |
| | NOEC (Dania rerio (zebra fish)); 2.13 mg/l |
| | Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity): |
| | NOEC (Daphnia magna (Water flea)); 21days |
| | (OECD Test Guideline 211) |
| | Toxicity to bacteria: |
| | EC50: > 2,000 mg/I; 3hrs |



| Bioaccumulative Potential | α-Methylstyrene, CAS No. 98-83-9 | | |
|----------------------------------|-----------------------------------------------------------------------------------------------------------------|--|--|
| | Cyprinus carpio (Carp) BCF: 15-140 | | |
| | (OECD Test Guideline 305C) | | |
| | Partition coefficient: n-octanol/water: Pow: 3.48 | | |
| Mobility in Soil: | No information is available | | |
| PBT and vPvB Assessment: | No information is available | | |
| Other Adverse Effects: | No information is available | | |
| PBT and vPvB Assessment: | Partition coefficient: n-octanol/water: Pow: 3.48 No information is available No information is available | | |

Section 13. Disposal Considerations

| Product: | Incineration is the recommended disposal method, providing that |
|---------------------------|------------------------------------------------------------------------|
| | available facility and such procedures are in compliance with FEDERAL, |
| | STATE, and LOCAL environmental pollution abatement regulations. |
| Disposing of Contaminated | Dispose of as unused product. Empty containers should be taken to an |
| Packaging: | approved waste handling site for recycling or disposal. |

Section 14. Transport Information

| Land Transport (DOT): | Not Regulated |
|-------------------------------------------------|-----------------------------|
| UN Number: | Not Applicable |
| UN Proper Shipping Name: | Not Applicable |
| Transport Hazard Class: | Not Applicable |
| Packing Group: | Not Applicable |
| Sea Transport (IMDG): | Not Regulated |
| UN Number: | Not Applicable |
| UN Proper Shipping Name: | Not Applicable |
| Transport Hazard Class: | Not Applicable |
| Packing Group: | Not Applicable |
| Air Transport (IATA): | Not Regulated |
| UN Number: | Not Applicable |
| UN Proper Shipping Name: | Not Applicable |
| Transport Hazard Class: | Not Applicable |
| Packing Group: | Not Applicable |
| Environmental Hazards (e.g., Marine pollutant): | No information is available |

Section 15. Regulatory Information

| International Inventories: | |
|----------------------------|--------|
| TSCA (USA): | Listed |
| DSL (Canada): | Listed |
| ENCS (Japan) | Listed |
| REACH (Europe): | Listed |
| IECSC (China): | Listed |
| KECL (Korea): | Listed |
| PICCS (Philippines): | Listed |



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| AICS (Australia): | Listed |
|------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| ERMA (New Zealand): | Listed |
| Federal Regulations: | |
| SARA 313: | This material does not contain any chemical components with |
| | known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313. |
| SARA 311/312: | Chronic Health Hazard |
| Clean Water Act: | No information available |
| Clean Air Act, Section 112 HAPs (See 40CFR61): | No information available |
| State Regulations: | |
| Massachusetts Right to Know Components: | No information available |
| New Jersey Right to Know Components: | Methyltetradecyl, methyl(2-phenylpropyl) siloxane |
| | CAS No. 68037-76-3 |
| | 90-100%, (Impurities each <1% in Methyltetradecyl, |
| | Methyl (2phenylpropyl) siloxane Not Assigned 1 - 5 %) |
| Pennsylvania Right to Know Components: | Methyltetradecyl, methyl(2-phenylpropyl) siloxane |
| | CAS No. 68037-76-3 |
| | 90 -100% |
| California Proposition 65: | WARNING! This product contains a chemical known in the |
| | State of California to cause cancer. |
| | α-Methylstyrene 98-83-9 |
| | WARNING! This product contains a chemical known in the |
| | State of California to cause birth defects or other reproductive harm. |
| | a-Methylstyrene 98-83-9 |

Section 16. Other Information

| WHMIS Classification: | |
|--------------------------------|---|
| HMIS Rating: | |
| Health Hazard | 0 |
| Flammability: | 2 |
| Physical Hazard: | 0 |
| Personal Protection Equipment: | х |
| NFPA Rating | |
| Health Hazard: | 0 |
| Fire Hazard: | 2 |
| Reactivity Hazard: | 0 |

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|---------------|------------------------|
| Prepared By | Advanced Polymer, Inc. |
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| Revised By | Advanced Polymer, Inc. |



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