MATERIAL SAFETY DATA SHEET

RADEL® R-5500

MSDS No. 11016000 ANSI/ENGLISH

1.0 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: RADEL® R-5500

MANUFACTURER/SUPPLIER:
Solvay Advanced Polymers, L.L.C.
4500 McGinnis Ferry Road
Alpharetta, Georgia 30005
USA

EMERGENCY HEALTH INFORMATION:
1 (800) 621-4590

EMERGENCY SPILL INFORMATION:
1 (800) 424-9300 CHEMTREC (USA)

OTHER PRODUCT INFORMATION:
1 (800) 621-4557 or 1 (770) 772-8880

2.0 COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS#	Range % by Wt.
Polyphenylsulfone	25608-64-4	
Titanium dioxide	13463-67-7	0-2
Carbon Black	1333-86-4	0-1

(See Section 8.0, "Exposure Controls/Personal Protection", for exposure guidelines)

3.0 HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: Caution! Handling and/or processing of this material may generate a dust which can cause mechanical irritation of the eyes, skin, nose and throat. It is important that processing equipment be free of materials that decompose at temperatures below 700°F. Cross-contamination with such materials may result in a violent release of fumes during processing.

POTENTIAL HEALTH EFFECTS:

EYE CONTACT: No significant health hazards identified. Particles or fibers may cause slight discomfort similar to getting dust in the eye.

SKIN CONTACT: No significant health hazards identified. Particles or fibers may cause slight discomfort similar to rubbing sand against the skin.

INHALATION: No significant irritation expected other than possible mechanical irritation. See "Toxicological Information" section (Section 11.0).

INGESTION: No significant health hazards identified.

HMIS CODE: (Health:1) (Flammability:1) (Reactivity:0)

NFPA CODE: (Health:1) (Flammability:1) (Reactivity:0)

4.0 FIRST AID MEASURES

EYE: Flush eyes with plenty of water. Get medical attention if irritation persists.

SKIN: Wash exposed skin with soap and water. Get medical attention if irritation develops.

INHALATION: If adverse effects occur, remove to uncontaminated area. Get medical attention.

INGESTION: If a large amount is swallowed, get medical attention.

5.0 FIRE FIGHTING MEASURES

FLASHPOINT: Non-flammable

UEL: Not determined.

LEL: Not determined.

AUTOIGNITION TEMPERATURE: 936°F (502°C)

FLAMMABILITY CLASSIFICATION: Not Flammable.

EXTINGUISHING MEDIA: Agents approved for Class A hazards (e.g., foam, steam) or water fog.

UNUSUAL FIRE AND EXPLOSION HAZARDS: The normal temperature for processing this resin exceeds the decomposition and/or ignition temperature of some other polymeric resins, such as polyacetal, polyvinyl chloride (PVC), polypropylene, etc. If PVC or any other resin with a decomposition temperature below 700°F is molded or handled in your equipment, these materials can rapidly decompose and/or react with RADEL R resin at the temperatures used to process the RADEL R resin.

Inadvertent contamination of RADEL R resin with these materials from the material handling system or other equipment can result in a rapid, possibly violent release of decomposition fumes, when the contaminated material is brought to processing temperature. To avoid, thoroughly clean molding and other processing equipment prior to changeover and prevent cross contamination of material handling systems.

High dust concentrations have a potential for combustion or explosion.

FIRE-FIGHTING EQUIPMENT: Firefighters should wear full bunker gear, including a positive pressure self-contained breathing apparatus.

HAZARDOUS COMBUSTION PRODUCTS: Incomplete burning can produce carbon monoxide and/or carbon dioxide, sulfur oxides and other harmful products.

6.0 ACCIDENTAL RELEASE MEASURES

Contain and remove by mechanical means. Vacuum or sweep out; avoid producing dust.

7.0 HANDLING AND STORAGE

HANDLING: Minimize dust generation and accumulation. Take appropriate measures to prevent static discharges, which may include thorough electrical interconnecting, grounding of equipment, and/or conveyance under inert gas.

STORAGE: No special requirements.

8.0 EXPOSURE CONTROLS / PERSONAL PROTECTION

EYE: None required; however, use of eye protection is good industrial practice. Use dust goggles if high dust concentration is generated.

SKIN: None required; however, use of protective gloves/clothing is good industrial practice.

INHALATION: Use with adequate ventilation. Do not breathe dust. If ventilation is inadequate, use NIOSH certified respirator that will protect against dust/mist. If heated and ventilation is inadequate, use a NIOSH-certified respirator which will protect against organic vapor and dust/mist.

ENGINEERING CONTROLS: Control airborne concentrations below the exposure guidelines.

EXPOSURE GUIDELINES:

Component	CAS#	Exposure Limits
Polyphenylsulfone	25608-64-4	No exposure limit established
Titanium dioxide	13463-67-7	OSHA PEL: 10 mg/m³ (total dust) OSHA TOTAL DUST: 10 mg/m³ (1989); 15 mg/m³ (1971) OSHA RESPIRABLE DUST: 5 mg/m³ (1989); 5 mg/m³ (1971) ACGIH TLV-TWA: 10 mg/m³ (total dust)
Carbon Black	1333-86-4	OSHA PEL: 3.5 mg/m³ (1989)(1971) ACGIH TLV-TWA: 3.5 mg/m³ ACGIH TLV-STEL: 7 mg/m³

9.0 CHEMICAL AND PHYSICAL PROPERTIES

APPEARANCE AND ODOR: Opaque or colored pellets or powder; odorless.

pH: Not determined.

VAPOR PRESSURE: Not determined.

VAPOR DENSITY: Not determined.

BOILING POINT: Not determined.

MELTING POINT: Not determined.

SOLUBILITY IN WATER: Negligible, below 0.1%.

SPECIFIC GRAVITY (WATER=1): 1.29

SOFTENING POINT: 428°F (220°C)

10.0 STABILITY AND REACTIVITY

STABILITY: Stable up to 800°F, but prolonged exposure at temperatures in the 750-800°F range can result in severe degradation.

CONDITIONS TO AVOID: Avoid generating dust.

MATERIALS TO AVOID: The normal temperature for processing this resin exceeds the decomposition and/or ignition temperature of some other polymeric resins, such as polyacetal, polyvinyl chloride (PVC), polypropylene, etc. If PVC or any other resin with a decomposition temperature below 700°F is molded or handled in your equipment, these materials can rapidly decompose and/or react with RADEL R resin at the temperatures used to process the RADEL R resin. Inadvertent contamination of RADEL R resin with these materials from the material handling system or other equipment can result in a rapid, possibly violent release of decomposition fumes, when the contaminated material is brought to processing temperature. To avoid, thoroughly clean molding and other processing equipment prior to changeover and prevent cross contamination of material handling systems.

HAZARDOUS DECOMPOSITION: Thermal decomposition products include carbon monoxide, and/or carbon dioxide, sulfur oxides, and hydrocarbons.

HAZARDOUS POLYMERIZATION: Will not occur.

11.0 TOXICOLOGICAL INFORMATION

ACUTE TOXICITY DATA;

EYE IRRITATION: Testing not conducted. See Other Toxicity Data.

SKIN IRRITATION: Testing not conducted. See Other Toxicity Data.

DERMAL LD50: Testing not conducted. See Other Toxicity Data.

ORAL LD50: Testing not conducted. See Other Toxicity Data.

INHALATION LC50: Testing not conducted. See Other Toxicity Data.

OTHER TOXICITY DATA: Specific toxicity tests have not been conducted on this product. Our hazard evaluation is based on information from similar products, the ingredients, technical literature, and/or professional experience.

Dense dust generated by the handling and/or processing of this material may be irritating to the eyes, skin, nose, and throat.

Titanium dioxide has been assigned exposure limits by ACGIH and OSHA based on nuisance dust and not toxicity.

This product may contain carbon black. Carbon black has been shown to cause lung tumors in rats at high exposure concentrations. These concentrations exceed the capacity of the lung to clear the carbon black particles, thus resulting in significant toxicity. The International Agency for Research on Cancer (IARC) has evaluated carbon black and found it to be possibly carcinogenic to humans (Group 2B).

12.0 ECOLOGICAL INFORMATION

Ecological testing has not been conducted on this product.

13.0 DISPOSAL INFORMATION

Burial at a permitted landfill is recommended. Disposal must be in accordance with applicable federal, state, or local regulations.

RCRA: This unused material, when discarded or disposed of, is not specifically listed as a hazardous waste in Federal regulations; however, it could be considered hazardous if it meets criteria for being toxic, corrosive, ignitable or reactive according to U.S. EPA definitions (40 CFR Subpart C). This material could also become a hazardous waste if it is mixed with or comes into contact with a listed hazardous waste. If it is a hazardous waste, regulations in 40 CFR 262- 266, 268, 270 and 279 may apply.

14.0 TRANSPORTATION INFORMATION

U.S. DEPT OF TRANSPORTATION

Shipping Name Not Regulated

INTERNATIONAL INFORMATION:

Sea (IMO/IMDG)

Shipping Name Not Regulated

Air (ICAO/IATA)

Shipping Name Not Regulated

European Road/Rail (ADR/RID)

Shipping Name Not Regulated

Canadian Transportation of Dangerous Goods

Shipping Name Not Regulated

15.0 REGULATORY INFORMATION

CERCLA SECTIONS 102a/103 HAZARDOUS SUBSTANCES (40 CFR Part 302.4): This product is not reportable under 40 CFR Part 302.4.

SARA TITLE III SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR Part 355): This product is not regulated under Section 302 of SARA and 40 CFR Part 355.

SARA TITLE III SECTIONS 311/312 HAZARDOUS CATEGORIZATION (40 CFR Part 370): This product is defined as hazardous by OSHA under 29 CFR Part 1910.1200(d).

SARA TITLE III SECTION 313 (40 CFR Part 372): This product is not regulated under Section 313 of SARA and 40 CFR Part 372.

U.S. INVENTORY (TSCA): Listed on inventory.

OSHA HAZARD COMMUNICATION STANDARD: Contains a component listed by OSHA. Contains a component listed by ACGIH. Contains an IARC 2B carcinogen.

WHMIS Controlled Product Classification: CONTAINS A COMPONENT LISTED BY WHMIS. D2A CARCINOGEN.

EC INVENTORY (EINECS/ELINCS): In compliance.

JAPAN INVENTORY (MITI): Listed on inventory.

AUSTRALIA INVENTORY (AICS): One or more components not listed on the inventory.

KOREA INVENTORY (ECL): Not listed on inventory.

CANADA INVENTORY (DSL): One or more of the components of this product is not listed on the DSL.

PHILIPPINE INVENTORY (PICCS): Not determined.

16.0 OTHER INFORMATION

This product, to the best of our knowledge, does not contain and is not manufactured with any Class I or Class II Ozone Depleting Chemicals (ODCs).

Prepared by:

Environment, Health and Safety Department

Issued: December 10, 1996

Supersedes: July 19, 1994

This Material Safety Data Sheet conforms to the requirements of ANSI Z400.1.
To the best of our knowledge the information contained in this Material Safety Data Sheet is accurate. However, neither Solvay Advanced Polymers, L.L.C., nor any of its affiliates makes any warranty, expressed or implied, or accepts any liability in connection with this information or its use.
