



U.S. Format

SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Radix 2.8Dk Printable Dielectric Resin
Product Number (Optional): 99681
Use of Product: 3D Printing Resin
Supplier: Rogers Corporation
2225 W. Chandler Blvd.
Chandler, AZ 85224
Phone: 001-480-917-6000
Fax: 001-480-961-4533
Email: msdsinfo@rogerscorporation.com
Emergency Telephone Number: 800-424-9300 (U.S. & Canada) Chemtrec
001-703-527-3887 (International – Call Collect)

2. HAZARDS IDENTIFICATION

Emergency Overview:

OSHA Hazard: May cause an allergic skin reaction. May cause respiratory irritation
Target Organs: Not Applicable
GHS Classification: Skin Sensitization (Category 1)
Acute aquatic toxicity (Category 2)
Chronic aquatic toxicity (Category 3)

GHS Label Elements, :

Pictogram:



Signal Word:

Warning

Hazard Statements:

H317: May cause an allergic skin reaction.
H335: May cause respiratory irritation.
H401: Toxic to aquatic life
H412: Harmful to aquatic life with long-lasting effects

Including Precautionary

Statements:

Prevention:

P261: Avoid breathing dust.
P271: Use only outdoors or in a well-ventilated area.
P272: Contaminated work clothing should not be allowed out of the workplace.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection as needed.

Response:

P302 + P352: IF ON SKIN: Wash with plenty of soap and water.
P304 + P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P312: Call a POISON CENTER or doctor/physician if you feel unwell.

Storage: P333 + P313: If skin irritation or rash occurs: Get medical advice/ attention.
P363: Wash contaminated clothing before reuse.
P403 + P233: Store in a well-ventilated place. Keep container tightly closed.
P405: Store locked up.
Disposal: P501: Dispose of contents/container to approved Hazardous waste Company.

HMIS Classification: *H 1 F 1 R 0

3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Chemical Name</u>	<u>CAS #</u>	<u>Concentration (%)</u>
Acrylated Oligomer	Proprietary	20 - 40
Treated Ceramic Filler	Proprietary	30 - 50
Methacrylate Monomer	Proprietary	5 - 25
Methacrylate Monomer	Proprietary	5 - 25
Methacrylate Monomer	Proprietary	5 - 25
Diphenyl-2,4,6-trimethylbenzoyl phosphine oxide	Proprietary	0.1 - 2
Light Stabilizing Additive	Proprietary	0.1 - 2

The material contains no other hazardous ingredients as defined in OSHA's Hazard Communication Standard 29 CFR 1910.1200 or EU 1999/45/EC, and do not present a health or environmental hazard according to directive 67/548/EC.

4. FIRST-AID MEASURES

General Advice: Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If Inhaled: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In Case of Skin Contact: Wash off with soap and plenty of water. Consult a physician.

In Case of Eye Contact: Rinse thoroughly with plenty of water for at least 20 minutes and consult a physician.

If Swallowed: Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Most important symptoms and effects, both acute and delayed: The most important known symptoms and effects are described in the labelling (see Section 2) and/or in Section 11.

Indication of any immediate medical attention and special treatment needed: No data available.

5. FIRE-FIGHTING MEASURES

Conditions of Flammability: No data available.

Suitable Extinguishing Media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special Protective Equipment for Fire Fighters: Wear self-contained breathing apparatus for firefighting if necessary.

Hazardous Combustion Products: Carbon Oxides

Further Information: Do not allow fire water to penetrate into surface or ground water. Fire residuals and contaminated extinguishing water must be disposed of in accordance with the regulations of the local authorities.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Use personal protective equipment. Avoid breathing vapors mists or gas. Ensure adequate ventilation. For personal protection see Section 8.

Environmental Precautions: Prevent further leakage or spillage. Do not let product enter drains.

Methods and Materials for Containment and Cleaning Up: Remove all sources of ignition. Contain spillage. Take up mechanically. Collect in closed containers for disposal. For disposal see Section 13.

7. HANDLING AND STORAGE

Precautions for Safe Handling: Sensitivity to static discharge is not expected.

Conditions for Safe Storage: Keep away from heat, sparks and open flame.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with Workplace Controls Parameters:

<u>Components</u>	<u>CAS #</u>	<u>Value</u>	<u>Control Parameter</u>	<u>Basis</u>
None				

Exposure Controls: Handle in accordance with good industrial hygiene and safety practice.
Appropriate Engineering Controls: Wash hands before breaks and at the end of workday.

Personal Protective Equipment:

Respiratory Protection: Where risk assessment show air-purifying respirators are appropriate use a full-face respirator with multi-purpose combinations (US) and type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand Protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Eye Protection: Safety glasses with side-shields conforming to EN166. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and Body Protection: Complete suit protecting against chemicals, the type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene Measures: Wash and dry hands.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:

Form: Liquid
Color: Dark Blue/Black

Safety Data:

pH:	Not applicable.
Melting/Freezing Point:	No information available.
Boiling Point:	>260°C
Flash Point:	No information available.
Ignition Temperature:	No information available.
Autoignition Temperature:	No information available.
Lower Explosion Limit:	No information available.
Upper Explosion Limit:	No information available.
Vapor Pressure:	No information available.
Specific Gravity:	1.29 (Water = 1)
Water Solubility:	No information available.
Partition Coefficient:	No information available.
Viscosity:	<6000 cP @ 23°C
Odor:	Ester-like
Odor Threshold:	No information available.
Evaporation Rate:	No information available.

10. STABILITY AND REACTIVITY

Reactivity:	Can react in the presence of light or high temperatures (140°C+).
Chemical Stability:	Stable under recommended storage conditions.
Possibility of Hazardous Reactions:	No data available.

Conditions to Avoid:	Strong ambient light, elevated storage temperatures.
Materials to Avoid:	No data available.
Hazardous Decomposition Products:	Carbon Monoxide. Carbon dioxide.

Thermal decomposition:	To avoid thermal decomposition, do not overheat.
------------------------	--

11. TOXICOLOGICAL INFORMATION

Acute Toxicity:	
Oral LD50:	No data available.
Dermal LD50:	No data available.
Other Info. on Acute Toxicity:	No data available.
Skin Corrosion/Irritation:	No data available.
Serious Eye Damage/Irritation:	No data available.
Respiratory or Skin Sensitization:	No data available.
Germ Cell Mutagenicity:	No data available.
Carcinogenicity:	
IARC:	No data available.
IARC:	No data available.
NTP:	No data available.
OSHA	No data available.
Reproductive Toxicity:	No data available.
Teratogenicity:	
Specific Target Organ Toxicity – Single Exposure (GHS):	No data available.
Specific Target Organ Toxicity – Repeated Exposure (GHS):	No data available.
Aspiration Hazard:	No data available.

Additional Information:	To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Vomiting, nausea, diarrhea possible.
-------------------------	--

12. ECOLOGICAL INFORMATION:

Toxicity: No data available.
Persistence and Degradability: No data available.
Bio-accumulative Potential: No data available.
Mobility in Soil: No data available.
PBT and vPvB Assessment: No data available.
Other Adverse Effects: No data available.

13. DISPOSAL CONSIDERATIONS

Product: Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.
Contaminated Packaging: Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (U.S.) Classification: Not regulated.
IMDG Classification: UN number: 3082 Class: 9 Packing group: III EMS-No: F-A, S-F
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (TRIMETHYLOLPROPANE TRIMETHACRYLATE)
Marine pollutant: yes
IATA Classification: UN number: 3082 Class: 9 Packing group: III
Proper shipping name: Environmentally hazardous substance, liquid, n.o.s. (TRIMETHYLOLPROPANE TRIMETHACRYLATE)
EHS-Mark required (ADR 2.2.9.1.10, IMDG code 2.10.3) for single packaging and combination packaging containing inner packaging with Dangerous Goods > 5L for liquids or > 5kg for solids.

15. REGULATORY INFORMATION

SARA 302 Components: No chemicals in this material are subject to the reporting requirements of SARA Title III.
SARA 311/312 Hazards: Acute Health Hazard
CERCLA (Comprehensive Emergency Response, Compensation, and Liability Act): Not Applicable
SARA Title III (Superfund Amendments and Reauthorization Act): Not Applicable

This product contains the following toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and 40 CFR 372:

<u>CAS #</u>	<u>CHEMICAL NAME</u>	<u>PERCENT BY WEIGHT</u>
NA	NA	NA

16. OTHER INFORMATION

NA = Not Applicable
NE = Not Established
NC = Not Classified

FILE: 99681 – Radix 2.8Dk Printable Dielectric Resin SDS - 01102023
PREPARED BY: EHS Department
REVIEWED BY: EHS Department
DATE: 01-10-2023

THE INFORMATION CONTAINED HEREIN IS BASED ON DATA CONSIDERED ACCURATE. HOWEVER, NO WARRANTY IS EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THESE DATA OR THE RESULT TO BE OBTAINED FROM THE USE THEREOF.

ROGERS CORPORATION ASSUMES NO RESPONSIBILITY FOR PERSONAL INJURY OR PROPERTY DAMAGE TO VENDEES, USERS OR THIRD PARTIES CAUSED BY THE MATERIAL. SUCH VENDEES OR USERS ASSUME ALL RISKS ASSOCIATED WITH THE USE OF THE MATERIAL. MSDS HAS BEEN PREPARED IN ACCORDANCE WITH ANSI STANDARD Z400.1-2044, AND REGULATION (EC) N° 1907/2006.