

SU-8 Resist

Resist composition (main components)

Gamma Butyrolactone	35-40%
Mixed Triarylsulfonium/ Hexafluoroantimonate Salt	1-5%
Propylene Carbonate	1-5%
Epoxy Resin	60-65%

Physical Data

- Boiling point: 204° C (400° F)
- Specific gravity: 1.1995
- Appearance: Pale yellow to clear
- Odour: Slightly sweet
- Vapour Pressure: 2 mm Hg@ 20° C
- Water Solubility: 35-40% by wt
- % Volatiles: 35-40% by wt
- Evaporation Rate: 1 (BuAc-1)
- Autoignition Temp: 437° C (820° F)
- Explosion Limits:
 - 3.6 lower
 - 16 upper

Hazardous Decomposition

- Carbon Monoxide
- Aldehydes
- Acids
- Hydrogen
- Fluoride Gas

Incompatibles

- Strong oxidizing agents
- Strong Bases
- Strong Acids

Protective Equipment



**Safety
Glasses**



Gloves



**Air Line
Hood or Mask**

Eyes

- Safety goggles are recommended.

Skin

- Rubber gloves are recommended.

Respiratory

- In case of spill, use of self-contained breathing apparatus (SCBA) is recommended.

Special Precautions

- **Storage:**
 1. Store in tightly closed container in a cool environment away from direct sunlight.
- **Handling:**
 1. Use only under yellow light.
 2. Use only with mechanical exhaust.
 3. Do not contact with skin, eyes, and clothing. Severe eye irritant.
 4. Avoid prolonged or repeated exposure.
 5. Wear heavy rubber gloves.
 6. Wash with soap and water after handling.
- **Ventilation:**
 1. Local or general mechanical ventilation is required.
- **Engineering Controls:**
 1. Have safety shower and eye wash available.

Toxicity

Toxicity Data

- Gamma Butyrolactone

In animal studies, due to the rate of dermal absorption of GBL, Dermal toxicity is assumed to be essential equal to oral toxicity. In humans, oral ingestion of solutions containing high concentrations of GBL has caused reversible coma.

- Mixed Triarylsulfonium/Hexafluoroantimonate Salt/Propylene Carbonate

This material was mutagenic in the Ames bacterial assay. It is inactive, however, in the in vivo mouse micronucleus test.

Target Organs:

- Eyes
- Epidermis

Health

Acute Effects:

- **Inhalation:** May cause irritation.
- **Eyes:** Severe eye irritation. Uncured product is an eye irritant, and is likely to polymerize, forming a solid that can adhere to eye tissue.
- **Skin:** May cause skin irritation. Uncured product causes skin irritation, and is likely to polymerize, forming a solid that can adhere to skin. Prolonged or repeated exposures could cause sensitization.
- **Ingestion:** May be harmful if swallowed in large quantities. Ingestion of unreacted product is unlikely. However, if ingested, gastrointestinal irritation and nausea are expected to occur with more serious symptoms developing upon ingestion of larger amounts.

First Aid:

- **Inhalation:** No occupational exposure limits have been developed for this material. Where exposure through inhalation may occur from use, NIOSH approved respiratory equipment is recommended.
- **Eyes:** Rinse immediately with water, flush for 15 min. lifting eyelids frequently. Get emergency medical assistance. Prompt action is essential.
- **Skin:** Rinse with water for 15 minutes while removing contaminated clothing and shoes. Wash affected area with soap and water. Wash contaminated clothing.
- **Ingestion:** If a large quantity swallowed, give lukewarm water. DO NOT induce vomiting. Risk of damage to lungs exceeds poisoning risk. Get medical attention immediately

PEL/TLV

PEL

- Information not supplied by manufacturer.

TLV

- Information not supplied by manufacturer.

Fire Hazard Data

- **Flash point:** 98° C (209° F)
- **Extinguishing Media:** Dry chemical, carbon dioxide. Foam, water spray. Fog.
- **Special Fire-Fighting Procedures:** Do not enter fire area without proper protection. Fight fire from a safe distance/protected location. Heat may build enough pressure to rupture closed containers, spreading fire, increasing risk of burns/injuries. Use water spray/fog for cooling. Avoid frothing, steam explosion. Burning liquid may float on water. Although water soluble, may not be practical to extinguish fire by water dilution. Notify authorities immediately if liquid enters sewer, public waters.
- **Unusual Fire or Explosion Hazards:** Heat from fire can generate flammable vapour. When mixed with air and exposed to ignition source, vapours can burn in open or explode if confined. Vapours may be heavier than air. May travel long distances along the ground before igniting and flashing back to vapour source. Fine sprays/mists may be combustible at temperatures below normal flash point.

Disposal

Spill Procedures:

- Evacuate area.
- Eliminate all ignition sources.
- Wear self-contained breathing apparatus (SCBA), rubber boots, and heavy rubber gloves.
- Avoid eye or skin contact.
- Cover with dry absorbent material and collect in closed container for disposal using non-sparking tools.
- Ventilate area and wash spill site after material pickup is complete.
- Rinse with water.
- All clean-up should be carried out in accordance with federal, state, and local regulations.
- If required, proper authorities should be notified.

Disposal:

- Observe all local environmental regulations and dispose as a chemical waste.