



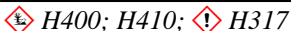
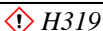
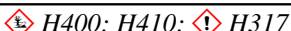
1 Identification of the substance/mixture and of the company

- **Product identifier**
- **Trade name:** SU-8 Series Resists
- **Product number:** Y131240, Y131252, Y131259, Y131263, Y131265, Y131269, Y131273, Y131274, Y131275
- **Application of the substance / the preparation** Photoresist
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
MicroChem Corp.
90 Oak Street
P.O. Box 426
Newton, MA 02464-0002 USA
- **Information department:**
Product Safety
Email: productsafety@microchem.com
- **Emergency telephone number:**
MicroChem Corp : 617-965-5511
Chemtrec USA Emergency : 800-424-9300
Chemtrec International Emergency : 703-527-3887

2 Composition/information on ingredients

- **Chemical characterization:** Mixtures
- **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

28906-96-9	epoxy resin		35-75%
96-48-0	gamma-butyrolactone		22-60%
71449-78-0	hexafluoroantimonate salt		1-5%
108-32-7	propylene carbonate		1-5%
89452-37-9	triarylsulfonium salt		1-5%

3 Hazards identification

- **Classification of the substance or mixture**



GHS08 Health hazard

H341 Suspected of causing genetic defects.



GHS09 Environment

H411 Toxic to aquatic life with long lasting effects.



GHS07

H319 Causes serious eye irritation.

H317 May cause an allergic skin reaction.

(Contd. on page 2)

Trade name: SU-8 Series Resists

(Contd. of page 1)

H303 May be harmful if swallowed.

· **Label elements**· **GHS label elements** The product is classified and labelled according to the Globally Harmonized System (GHS).· **Hazard pictograms**

GHS07 GHS08 GHS09

· **Signal word** Warning· **Hazard-determining components of labelling:**

epoxy resin

hexafluoroantimonate salt

triarylsulfonium salt

· **Hazard statements**

H303 May be harmful if swallowed.

H319 Causes serious eye irritation.

H317 May cause an allergic skin reaction.

H341 Suspected of causing genetic defects.

H411 Toxic to aquatic life with long lasting effects.

· **Precautionary statements**

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P103 Read label before use.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P305+P351+P338 **IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P321 Specific treatment (see on this label).

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Classification system:**· **NFPA ratings (scale 0 - 4)**

Health = 2

Fire = 1

Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**

HEALTH 2 Health = 2

FIRE 1 Fire = 1

REACTIVITY 0 Reactivity = 0

4 First aid measures· **General information:**

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

(Contd. on page 3)

Trade name: SU-8 Series Resists

(Contd. of page 2)

- **After inhalation:**
Supply fresh air and to be sure call for a doctor.
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:** Rinse opened eye for several minutes under running water and then consult a doctor.
- **After swallowing:** Immediately call a doctor.

5 Firefighting measures

- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Protective equipment:** Wear SCBA.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:**
Do not allow product to reach sewage system or any drains.
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
Ensure good ventilation/exhaust at the workplace.
Prevent formation of aerosols.
- **Information about protection against explosions and fires:** No special measures required.
- **Storage:**
- **Requirements to be met by storerooms and containers:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Keep container tightly sealed.
Protect from exposure to the light.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Components with limit values that require monitoring at the workplace:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

(Contd. on page 4)

Trade name: SU-8 Series Resists

(Contd. of page 3)

- **Additional information:** The lists that were valid during the creation were used as basis.
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Keep away from food and beverages.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.
- **Respiratory equipment:**
In case of low exposure, use cartridge respirator. In case of intensive or longer exposure, use SCBA.
- **Protection of hands:**



Protective gloves

- **Material of gloves** Butyl rubber, BR
- **Penetration time of glove material** Contact glove manufacture for break-through time.
- **Eye protection:**



Tightly sealed goggles

9 Physical and chemical properties

· General Information

· Appearance:

Form: Fluid
Color: Clear
Light yellow

· **Odor:** Mild

· **Odour threshold:** Not determined.

· **pH-value:** Not determined.

· Change in condition

Melting point/Melting range: Undetermined.
Boiling point/Boiling range: 205°C (401 °F)

· **Flash point:** 100°C (212 °F)

· **Flammability (solid, gaseous):** Not applicable.

· **Ignition temperature:** 445°C (833 °F)

· **Decomposition temperature:** Not determined.

· **Auto igniting:** Product is not selfigniting.

· **Danger of explosion:** Product does not present an explosion hazard.

· Explosion limits:

Lower: 2.7 Vol %
Upper: 15.6 Vol %

· **Vapor pressure at 20°C (68 °F):** 1 hPa (1 mm Hg)

· **Density:** Not determined.

(Contd. on page 5)

Trade name: SU-8 Series Resists

(Contd. of page 4)

- **Relative density** Not determined.
- **Vapour density** Not determined.
- **Evaporation rate** Not determined.

- **Solubility in / Miscibility with Water:** Not miscible or difficult to mix.

- **Segregation coefficient (n-octanol/water):** Not determined.

- **Viscosity:**

- **Dynamic:** Not determined.

- **Kinematic:** Not determined.

- **Other information**

Name	Number	Sp. Grav.	Vol.(%by wt.)	VOC (g/L)
SU8-2	Y131240	1.123	60.5	680
SU8-5	Y131252	1.164	45-50	560
SU8-10	Y131259	1.187	35-40	490
SU8-25	Y131263	1.200	35-40	440
SU8-40	Y131265	1.210	33-37	425
SU8-50	Y131269	1.219	30-35	380
SU8-100	Y131273	1.233	20-30	330
SU8-250	Y131274	1.236	20-30	320
SU8-500+	Y131275	1.237	20-30	310

10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

96-48-0 gamma-butyrolactone

Oral	LD50	1540 mg/kg (rat)
Dermal	LD50	5000 mg/kg (gui)

- **Primary irritant effect:**

- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Irritating effect.
- **Sensitization:** Sensitization possible through skin contact.

12 Ecological information

- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Ecotoxic effects:**
- **Remark:** Toxic for fish

(Contd. on page 6)

Trade name: SU-8 Series Resists

(Contd. of page 5)

· **Additional ecological information:**· **General notes:**

Water hazard class 1 (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Also poisonous for fish and plankton in water bodies.

Toxic for aquatic organisms

13 Disposal considerations· **Waste treatment methods**· **Recommendation:**

Must not be disposed of as regular garbage/trash. Do not allow product to reach sewage system.

· **Uncleaned packagings:**· **Recommendation:** Disposal must be made in accordance with Federal, State, and Local regulations.**14 Transport information**· **UN-Number**· **DOT, ADR, ADN, IMDG, IATA** Void· **UN proper shipping name**· **DOT, ADN, IMDG, IATA** Void· **ADR** Void· **Transport hazard class(es)**· **DOT, ADR, ADN, IMDG, IATA**· **Class** Void· **Packing group**· **DOT, ADR, IMDG, IATA** Void· **Special precautions for user** Not applicable.· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.· **Transport/Additional information:** Not Regulated· **UN "Model Regulation":** -**15 Regulatory information**· **Sara**· **Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

· **Section 313 (Specific toxic chemical listings):**

71449-78-0 hexafluoroantimonate salt

89452-37-9 triarylsulfonium salt

· **TSCA (Toxic Substances Control Act):**

All ingredients are listed or comply with TSCA regulations.

(Contd. on page 7)

Trade name: SU-8 Series Resists

(Contd. of page 6)

· **Proposition 65**· **Chemicals known to cause cancer:**

None of the ingredients are listed.

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

· **Carcinogenic categories**· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

· **IARC (International Agency for Research on Cancer)**

96-48-0 | gamma-butyrolactone

3

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

· **TLV (Threshold Limit Value established by ACGIH)**

None of the ingredients is listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

· **GHS label elements** The product is classified and labelled according to the Globally Harmonized System (GHS).· **Hazard pictograms**

GHS07

GHS08

GHS09

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(Contd. on page 8)

Printing date 04/20/2012

Reviewed on 04/20/2012

Trade name: SU-8 Series Resists

(Contd. of page 7)

P321	Specific treatment (see on this label).
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16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Department issuing MSDS:** Product safety department

- **Contact:** Mr. Bedet

- **Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organization

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

USA