1 Identification of the substance/mixture and of the company

· Product identifier
  · Trade name: SU-8 Developer
  · Product number: Y020100
  · CAS Number:
    108-65-6
  · EC number:
    203-603-9
  · Index number:
    607-195-00-7
  · Application of the substance / the preparation Photoresist

· Details of the supplier of the safety data sheet
  · Manufacturer/Supplier:
    MicroChem Corp
    90 Oak Street, PO Box 426
    Newton, MA 02464-0002
  · 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: Substances
  · CAS No. Description
    108-65-6 2-methoxy-1-methylethyl acetate
  · Identification number(s)
    · EC number: 203-603-9
    · Index number: 607-195-00-7

3 Hazards identification

· Classification of the substance or mixture
  
  GHS02 Flame

  H226 Flammable liquid and vapour.

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

  GHS02

· Signal word Warning

(Contd. on page 2)
Trade name: SU-8 Developer

- **Hazard statements**
  - H226 Flammable liquid and vapour.

- **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.
  - P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
  - P241 Use explosion-proof electrical/ventilating/lighting/equipment.
  - P280 Wear protective gloves/protective clothing/eye protection/face protection.
  - P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
  - P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Classification system:**
  - **NFPA ratings (scale 0 - 4)**
    - Health = 1
    - Fire = 2
    - Reactivity = 0
  - **HMIS-ratings (scale 0 - 4)**
    - Health = 1
    - Fire = 2
    - Reactivity = 0

- **4 First aid measures**
  - After inhalation: Supply fresh air; consult doctor in case of complaints.
  - After skin contact: Immediately wash with water and soap and rinse thoroughly.
  - After eye contact:
    - Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
  - After swallowing: Seek immediate medical advice.

- **5 Firefighting measures**
  - Suitable extinguishing agents: CO2, sand, extinguishing powder. Do not use water.
  - For safety reasons unsuitable extinguishing agents: Water with full jet
  - 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
    - Wear protective equipment. Keep unprotected persons away.
  - Environmental precautions: 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).
    - Do not flush with water or aqueous cleansing agents
  - Reference to other sections
    - See Section 7 for information on safe handling.
7 Handling and storage

- Handling:
  - Precautions for safe handling: No special precautions are necessary if used correctly.
  - Information about protection against explosions and fires:
    Keep ignition sources away - Do not smoke.
    Protect against electrostatic charges.
- 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.
  - 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:
  - 108-65-6 2-methoxy-1-methylethyl acetate
    WEEL 50 ppm
- Additional information: The lists that were valid during the creation were used as basis.
- Personal protective equipment:
  - General protective and hygienic measures: Wash hands before breaks and at the end of work.
  - Respiratory equipment: Use suitable respiratory protective device in case of insufficient ventilation.
  - Protection of hands:
    The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
    Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
    Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
    - Material of gloves: Neoprene gloves
    - 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: Colorless
- Odor:
  - Odour threshold: Ester-like
  - Odour threshold:
  - pH-value at 20°C (68 °F):
    - pH-value at 20°C (68 °F): 4
### 34.0.3 Change in condition
- **Melting point/Melting range:** Undetermined.
- **Boiling point/Boiling range:** 146°C (295 °F)
- **Flash point:** 44°C (111 °F)
- **Flammability (solid, gaseous):** Not applicable.
- **Ignition temperature:** 315°C (599 °F)
- **Decomposition temperature:** Not determined.
- **Auto igniting:** Not determined.
- **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
- **Explosion limits:**
  - Lower: 1.5 Vol %
  - Upper: 10.8 Vol %
- **Vapor pressure at 20°C (68 °F):** 3.37 hPa (3 mm Hg)
- **Density at 20°C (68 °F):** 0.9668 g/cm³ (8.068 lbs/gal)
- **Relative density** Not determined.
- **Vapour density** Not determined.
- **Evaporation rate** Not determined.
- **Solubility in / Miscibility with Water at 20°C (68 °F):** 220 g/l
- **Segregation coefficient (n-octanol/water):** Not determined.
- **Viscosity:**
  - Dynamic: Not determined.
  - Kinematic: Not determined.
- **Organic solvents:** 99.5 %
- **VOC content:** 99.5 %
- **Solids content:** 0.5 %
- **Other information** No further relevant information available.

### 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:**
    | Route                  | LD50/LC50 Value (mg/kg or mg/l) |
    |------------------------|---------------------------------|
    | Oral                   | 8532 mg/kg (rat)               |
    | Inhalative             | 35.7 mg/l (rat)                |

(Contd. on page 5)
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.
- **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.

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** NA3272
  - **ADR, IMDG, IATA** UN3272
- **UN proper shipping name**
  - **DOT, IMDG, IATA** ESTERS, N.O.S. (2-methoxy-1-methylethyl acetate)
  - **ADR** 3272 ESTERS, N.O.S. (2-methoxy-1-methylethyl acetate)
- **Transport hazard class(es)**
  - **DOT, IMDG, IATA**
    - **Class** 3 Flammable liquids.
    - **Label** 3
    - **ADR**
      - **Class** 3 Flammable liquids
Trade name: SU-8 Developer

| · Label | 3 |
| · Packing group | III |
| · DOT, ADR, IMDG, IATA | |
| · Environmental hazards: | No |
| · Marine pollutant: | |
| · Special precautions for user | Warning: Flammable liquids |
| · Danger code (Kemler): | 30 |
| · EMS Number: | F-E, S-E |
| · Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code | Not applicable. |
| · UN "Model Regulation": | UN3272, ESTERS, N.O.S. (2-methoxy-1-methylethyl acetate), 3, III |

15 Regulatory information

· Sara
  · Section 355 (extremely hazardous substances): Substance is not listed.
  · Section 313 (Specific toxic chemical listings): Substance is not listed.
  · TSCA (Toxic Substances Control Act): Substance is listed.
  · Proposition 65
    · Chemicals known to cause cancer: Substance is not listed.
    · Chemicals known to cause reproductive toxicity for females: Substance is not listed.
    · Chemicals known to cause reproductive toxicity for males: Substance is not listed.
    · Chemicals known to cause developmental toxicity: Substance is not listed.

· Carcinogenic categories
  · EPA (Environmental Protection Agency) Substance is not listed.
  · IARC (International Agency for Research on Cancer) Substance is not listed.
  · NTP (National Toxicology Program) Substance is not listed.
  · TLV (Threshold Limit Value established by ACGIH) Substance is not listed.
  · NIOSH-Ca (National Institute for Occupational Safety and Health) Substance is not listed.
· OSHA-Ca (Occupational Safety & Health Administration)

Substance is not listed.

· GHS label elements

The substance is classified and labelled according to the Globally Harmonized System (GHS).

· Hazard pictograms

GHS02

· Signal word

Warning

· Hazard statements

H226 Flammable liquid and vapour.

· Precautionary statements

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

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:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
ICAO: International Civil Aviation Organization
ACGIH: American Conference of Governmental Industrial Hygienists
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
VOC: Volatile Organic Compounds (USA, EU)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent