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: 617-965-5311
    Chemtrec USA Emergency: 800-424-9300
    Chemtrec International Emergency: 703-527-3887

2 Hazards identification

- **Classification of the substance or mixture**
  - GHS02 Flame
  - Flam. Liq. 3 H226 Flammable liquid and vapor.

- **Label elements**
- **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 vapor.

- **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.

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

P303+P361+P333 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)

<table>
<thead>
<tr>
<th>HEALTH</th>
<th>1</th>
<th>Health = 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIRE</td>
<td>2</td>
<td>Fire = 2</td>
</tr>
<tr>
<td>REACTIVITY</td>
<td>0</td>
<td>Reactivity = 0</td>
</tr>
</tbody>
</table>

- Other hazards
  - Results of PBT and vPvB assessment
    - PBT: Not applicable.
    - vPvB: Not applicable.

3 Composition/information on ingredients

- Chemical characterization: Substances
- CAS No. Description
  108-65-6 1-Methoxy-2-propanol acetate
- Identification number(s)
- EC number: 203-603-9
- Index number: 607-195-00-7

4 First aid measures

- Description of 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.
- Information for doctor:
  - Most important symptoms and effects, both acute and delayed No further relevant information available.
  - Indication of any immediate medical attention and special treatment needed
    No further relevant information available.

5 Firefighting measures

- Extinguishing media
- 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.
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.
  See Section 8 for information on personal protection equipment.
  See Section 13 for disposal information.

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.
- Conditions for safe storage, including any incompatibilities
- 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.
- Control parameters
  - 108-65-6 1-Methoxy-2-propanol acetate

  | WEEL  | 50 ppm |
- Additional information: The lists that were valid during the creation were used as basis.
- Exposure controls
- 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

- Information on basic physical and chemical properties
  - General Information
    - Appearance:
      - Form: Fluid
      - Color: Colorless
      - Odor: Ester-like
      - Odour threshold: Not determined.

  - pH-value at 20°C (68 °F): 4

  - 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

  - Partition 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 %

(Contd. on page 5)
Material Safety Data Sheet
acc. to ISO/DIS 11014

Trade name: SU-8 Developer

10 Stability and reactivity

- Reactivity
- Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- Possibility of hazardous reactions: No dangerous reactions known.
- Conditions to avoid: No further relevant information available.
- Incompatible materials: No further relevant information available.
- Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

- Information on toxicological effects
  - Acute toxicity:
    - LD/LC50 values that are relevant for classification:
      - 108-65-6 1-Methoxy-2-propanol acetate
        - Oral LD50 8332 mg/kg (rat)
        - Inhalative LC50/4 h 35.7 mg/l (rat)
    - Primary irritant effect:
      - on the skin: No irritant effect.
      - on the eye: No irritating effect.
      - Sensitization: No sensitizing effects known.
    - Additional toxicological information:
      - Carcinogenic categories
        - IARC (International Agency for Research on Cancer)
          Substance is not listed.
        - NTP (National Toxicology Program)
          Substance is not listed.

12 Ecological information

- Toxicity
  - 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.
  - Mobility in soil: 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.
  - Results of PBT and vPvB assessment
    - PBT: Not applicable.
    - vPvB: Not applicable.
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.

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14 Transport information

- UN-Number
  - DOT: NA3272
  - ADR, IMDG, IATA: UN3272

- UN proper shipping name
  - DOT, IMDG, IATA: ESTERS, N.O.S. (1-Methoxy-2-propanol acetate)
  - ADR: 3272 ESTERS, N.O.S. (1-Methoxy-2-propanol acetate)

- Transport hazard class(es)

- DOT

  - Class: 3 Flammable liquids
  - Label: 3

- ADR, IMDG, IATA

  - Class: 3 Flammable liquids
  - Label: 3

- Packing group
  - DOT, ADR, IMDG, IATA: III

- Environmental hazards:
  - Marine pollutant: No

- 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. (1-Methoxy-2-propanol acetate), 3, III
15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
  - SARA
    - Section 335 (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.
  - 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 vapor.
- 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.
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
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