SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name: SU-8 Developer

· Article number: Y020100
· CAS Number: 108-65-6
· EC number: 203-603-9
· Index number: 607-195-00-7
· Registration number 2-methoxy-1-methylethyl acetate (CAS 108-65-6): 01-2119475791-29-0050

1.2 Relevant identified uses of the substance or mixture and uses advised against

No further relevant information available.

· Sector of Use SU16 Manufacture of computer, electronic and optical products, electrical equipment
· Application of the substance / the mixture Photoresist remover

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:
Kayaku Advanced Materials, Inc.
200 Flanders Road
Westborough, MA 01581
Tel: (617) 965-5511
Fax: (617) 965-5818

The person responsible in EU Member State:
ONLY REPRESENTATIVE
Lionel Marcélis, PhD
President
REACH NATION SRL
22 Rue Notre Dame au Bois
1440 Braine-le-Château
BELGIUM
Tel: +32491880259

*Only Representative for 2-methoxy-1-methylethyl acetate (CAS 108-65-6) only. Other substances are being supported under REACH by Only Representatives of Non-European suppliers and others may be exempt from registration.

1.4 Emergency telephone number:

Kayaku Advanced Materials: 617-965-5511
Chemtrec USA Emergency: 800-424-9300 (24 hr)
Chemtrec International Emergency: 703-527-3887 (24 hr)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

GHS02 flame

Flam. Liq. 3 H226 Flammable liquid and vapour.

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

GHS08 health hazard
Repr. 1B  H360D May damage the unborn child.

GHS07
STOT SE 3  H336 May cause drowsiness or dizziness.

2.2 Label elements
- Labelling according to Regulation (EC) No 1272/2008
  The substance is classified and labelled according to the CLP regulation.
- Hazard pictograms
  GHS02  GHS07  GHS08

- Signal word Danger
- Hazard-determining components of labelling:
  1-Methoxy-2-propanol acetate
  2-Methoxy-1-propyl acetate
- Hazard statements
  H226 Flammable liquid and vapour.
  H360D May damage the unborn child.
  H336 May cause drowsiness or dizziness.
- 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, hot surfaces, sparks, open flames and other ignition sources. No smoking.
  P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
  P280 Wear protective gloves/protective clothing/eye protection/face protection.
  P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
  P302+P352 IF ON SKIN: Wash with plenty of soap and water.
  P304+P341 IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
  P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
  P337+P313 If eye irritation persists: Get medical advice/attention.
  P370+P378 In case of fire: Use for extinguishing: Alcohol resistant foam.
  P370+P378 In case of fire: Use for extinguishing: Fire-extinguishing powder.
  P370+P378 In case of fire: Use for extinguishing: Carbon dioxide.
  P403+P235 Store in a well-ventilated place. Keep cool.
  P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
Trade name: SU-8 Developer

Additional information:
Restricted to professional users.

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

SECTION 3: Composition/information on ingredients

3.1 Chemical characterisation: 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

Dangerous components:
CAS: 70657-70-4
EINECS: 274-724-2
Index number: 607-251-00-0
Flam. Liq. 3, H226; Repr. 1B, H360D; STOT SE 3, H335
<0.5%

CAS: 108-65-6
EINECS: 203-603-9
Index number: 607-195-00-7
1-Methoxy-2-propanol acetate
Flam. Liq. 3, H226; STOT SE 3, H336
>99.5%

SECTION 4: First aid measures

4.1 Description of first aid measures
After inhalation:
Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

After skin contact:
Immediately wash with water and soap and rinse thoroughly.

After eye contact:
Wash eyes immediately with a large amount of water or normal saline, occasionally lifting upper and lower eye lids until no evidence of chemical remains (about 20 minutes). Remove contact lenses if present and easy to remove. Seek immediate medical attention.

After swallowing:
If symptoms persist consult doctor.

4.2 Most important symptoms and effects, both acute and delayed
No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed
Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media
Suitable extinguishing agents:
Alcohol resistant foam
Fire-extinguishing powder
ABC powder

For safety reasons unsuitable extinguishing agents: Water with full jet

5.2 Special hazards arising from the substance or mixture
No further relevant information available.
5.3 Advice for firefighters

Protective equipment: Wear self-contained respiratory protective device.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Wear protective equipment. Keep unprotected persons away.

6.2 Environmental precautions:
Do not allow product to reach sewage system or any water course.
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/surface or ground water.

6.3 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.
Do not flush with water or aqueous cleansing agents

6.4 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.

SECTION 7: Handling and storage

7.1 Precautions for safe handling
Ensure good ventilation/exhaust at the workplace.
Open and handle receptacle with care.
Prevent formation of aerosols.

Information about fire - and explosion protection:
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
Keep respiratory protective device available.

7.2 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:
    Do not store together with alkalis (caustic solutions).
    Do not store together with oxidising and acidic materials.
  - Further information about storage conditions:
    Store in cool, dry conditions in well sealed containers.
    Store receptacle in a well ventilated area.
    Protect from heat and direct sunlight.

7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Additional information about design of technical facilities: No further data; see item 7.
### Ingredients with limit values that require monitoring at the workplace:

<table>
<thead>
<tr>
<th>CAS Number</th>
<th>Chemical Name</th>
<th>Limit Values</th>
<th>Skin</th>
</tr>
</thead>
</table>
| 108-65-6   | 1-Methoxy-2-propanol acetate | Short-term value: 550 mg/m³, 100 ppm  
|            |                        | Long-term value: 275 mg/m³, 50 ppm  |

**Additional information:** The lists valid during the making were used as basis.

### 8.2 Exposure controls

**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.
  - Store protective clothing separately.
  - Avoid contact with the eyes and skin.

- **Respiratory protection:**
  - In case of low exposure use cartridge respirator. In case of intensive or longer exposure use self-contained respiratory protective device.

- **Protection of hands:**
  - **Protective gloves**

  The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

- **Material of gloves** Nitrile rubber, NBR

- **Penetration time of glove material**

  The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:**
  - Tightly sealed goggles

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### SECTION 9: Physical and chemical properties

**9.1 Information on basic physical and chemical properties**

**General Information**

- **Appearance:**
  - **Form:** Fluid
  - **Colour:** Colourless
  - **Odour:** Characteristic
  - **Odour threshold:** Not determined.

- **pH-value at 20 °C:** 4

**Change in condition**

- **Melting point/freezing point:** < -67 °C
- **Initial boiling point and boiling range:** 146 °C
Safety data sheet
according to 1907/2006/EC, Article 31

Trade name: SU-8 Developer

· Flash point: 44 °C
· Flammability (solid, gas): Not applicable.
· Ignition temperature: 315 °C
· Decomposition temperature: Not determined.
· Auto-ignition temperature: Not determined.
· Explosive properties: Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
· Explosion limits:
  Lower: 1.5 Vol %
  Upper: 10.8 Vol %
· Vapour pressure at 20 °C: 3.7 hPa
· Density at 20 °C: 0.9668 g/cm³
· Relative density: Not determined.
· Vapour density: Not determined.
· Evaporation rate: Not determined.
· Solubility in / Miscibility with water at 20 °C: 220 g/l
· Partition coefficient: n-octanol/water: Not determined.
· Viscosity:
  Dynamic: Not determined.
  Kinematic: Not determined.
  Organic solvents: 99.5 %
· Solids content: 0.5 %
· 9.2 Other information: No further relevant information available.

SECTION 10: Stability and reactivity
· 10.1 Reactivity: No further relevant information available.
· 10.2 Chemical stability: Stable
· Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
· 10.3 Possibility of hazardous reactions: No dangerous reactions known.
· 10.4 Conditions to avoid
  Heat, flames and sparks. Extremes of temperature and direct sunlight.
  Contact with incompatible materials.
· 10.5 Incompatible materials: Strong Oxidizing Agents, Strong Acids, Strong Bases
· 10.6 Hazardous decomposition products: Carbon monoxide and carbon dioxide

SECTION 11: Toxicological information
· 11.1 Information on toxicological effects
· Acute toxicity: Based on available data, the classification criteria are not met.
Trade name: SU-8 Developer

<table>
<thead>
<tr>
<th>· LD/LC50 values relevant for classification:</th>
</tr>
</thead>
<tbody>
<tr>
<td>108-65-6 1-Methoxy-2-propanol acetate</td>
</tr>
<tr>
<td>Oral LD50 8532 mg/kg (Rat)</td>
</tr>
<tr>
<td>Dermal LD50 &gt;5000 mg/kg (Rat)</td>
</tr>
<tr>
<td>Inhalative LC50/6 h 4345 ppm (Rat)</td>
</tr>
</tbody>
</table>

· Primary irritant effect:
  · Skin corrosion/irritation Based on available data, the classification criteria are not met.
  · Serious eye damage/irritation Based on available data, the classification criteria are not met.
  · Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
  · Additional toxicological information:
    · CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
    · Germ cell mutagenicity Based on available data, the classification criteria are not met.
    · Carcinogenicity Based on available data, the classification criteria are not met.
    · Reproductive toxicity
      May damage the unborn child.
    · STOT-single exposure
      May cause drowsiness or dizziness.
    · STOT-repeated exposure Based on available data, the classification criteria are not met.
    · Aspiration hazard Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

· 12.1 Toxicity
  · Aquatic toxicity:
    108-65-6 1-Methoxy-2-propanol acetate
    LC50 408-500 mg/l (daphnia magna)
    100-180 mg/l (rainbow trout (Oncorhynchus mykiss))

· 12.2 Persistence and degradability No further relevant information available.
· 12.3 Bioaccumulative potential No further relevant information available.
· 12.4 Mobility in soil No further relevant information available.
· Additional ecological information:
  · General notes:
    Water hazard class 1 (German Regulation) (Assessment by list): slightly hazardous for water
    Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
  · 12.5 Results of PBT and vPvB assessment
    · PBT: Not applicable.
    · vPvB: Not applicable.
  · 12.6 Other adverse effects No further relevant information available.

SECTION 13: Disposal considerations

· 13.1 Waste treatment methods
· Recommendation
  Disposal must be made in accordance with International, National, and regional regulations.
  Must not be disposed together with household garbage. Do not allow product to reach sewage system.
### SECTION 14: Transport information

- **14.1 UN-Number**
  - ADR, IMDG, IATA: UN3272

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

- **14.3 Transport hazard class(es)**
  - ADR, IMDG, IATA:
    - Class: 3 Flammable liquids.
    - Label: 3

- **14.4 Packing group**
  - ADR, IMDG, IATA: III

- **14.5 Environmental hazards:**
  - Marine pollutant: No

- **14.6 Special precautions for user**
  - Hazard identification number (Kemler code): 30
  - EMS Number: F-E,S-D

- **14.7 Transport in bulk according to Annex II of Marpol and the IBC Code**
  - Not applicable.

- **Transport/Additional information:**
  - ADR:
    - Limited quantities (LQ): 5L
    - Transport category: 3
    - Tunnel restriction code: D/E

- **UN "Model Regulation":**
  - UN 3272 ESTERS, N.O.S. (1-METHOXY-2-PROPANOL ACETATE), 3, III

### SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
  - Directive 2012/18/EU
  - Named dangerous substances - ANNEX I Substance is not listed.
  - Seveso category P5c FLAMMABLE LIQUIDS
  - Qualifying quantity (tonnes) for the application of lower-tier requirements: 5.000 t
  - Qualifying quantity (tonnes) for the application of upper-tier requirements: 50.000 t
  - REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3, 30

(Contd. on page 9)
**SECTION 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.

- Relevant phrases
  - H226 Flammable liquid and vapour.
  - H335 May cause respiratory irritation.
  - H336 May cause drowsiness or dizziness.
  - H360D May damage the unborn child.

- Classification according to Regulation (EC) No 1272/2008
  Art. 9(1) of Regulation (EC) No. 1272/2008 was used for classification purposes.

- Department issuing SDS: Product safety department
- Contact: Tom Cole, EHS Manager (tcole@kayakuAM.com)
- Revision History:
  The manufacturer's information in Section 1, the product hazard information in Section 2 and the component hazard information in Section 3 have been updated.

- Abbreviations and acronyms:
  - ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
  - IMDG: International Maritime Code for Dangerous Goods
  - IATA: International Air Transport Association
  - GHS: Globally Harmonised System of Classification and Labelling of Chemicals
  - EINECS: European Inventory of Existing Commercial Chemical Substances
  - ELINCS: European List of Notified Chemical Substances
  - CAS: Chemical Abstracts Service (division of the American Chemical Society)
  - LC50: Lethal concentration, 50 percent
  - LD50: Lethal dose, 50 percent
  - PBT: Persistent, Bioaccumulative and Toxic
  - vPvB: very Persistent and very Bioaccumulative
  - Flamm. Liq. 3: Flammable liquids – Category 3
  - Rep. 1B: Reproductive toxicity – Category 1B
  - STOT SE 3: Specific target organ toxicity (single exposure) – Category 3