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

1.1 Product identifier
- Product number: 212864
- Product name: AZ 125nXT-10A Photoresist

1.2 Relevant identified uses of the substance or mixture and uses advised against
- Identified uses: Intermediate for electronic industry

1.3 Details of the supplier of the safety data sheet
- Company: Merck KGaA * 64271 Darmstadt * Germany * Phone:+49 6151 72 0
- Responsible Department: PM-OQR * e-mail: PM_SDS_Supply@merckgroup.com

1.4 Emergency telephone number
- Please contact the regional company representation in your country.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)
- Skin Irritation, Category 2: H315: Causes skin irritation. Calculation method
- Serious eye damage, Category 1: H318: Causes serious eye damage. Calculation method
- Skin sensitisation, Category 1: H317: May cause an allergic skin reaction. Calculation method
- Reproductive toxicity, Category 1B: H360FD: May damage fertility. May damage the unborn child. Calculation method
- Chronic aquatic toxicity, Category 3: H412: Harmful to aquatic life with long lasting effects. Calculation method

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)
Hazard pictograms

Signal word: Danger
Hazard statements:
H226 Flammable liquid and vapour.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H360FD May damage fertility. May damage the unborn child.
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:
Prevention:
P201 Obtain special instructions before use.
P210 Keep away from heat.
P273 Avoid release to the environment.
P280 Wear protective gloves/eye protection/face protection.

Response:
P302 + P352 IF ON SKIN: Wash with plenty of water.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P313 IF exposed or concerned: Get medical advice/attention.
P313 Get medical advice/attention.

Hazardous components which must be listed on the label:
Oxybis(2,1-ethanediyoxy-2,1-ethanediyl)diacrylate
2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one
bis(2,4,6-trimethylbenzoyl)phenylphosphine oxide

Reduced Labelling (<= 125 ml)
Hazard pictograms

Signal word: Danger
Hazard statements:
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H360FD May damage fertility. May damage the unborn child.
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:
P201 Obtain special instructions before use.
P280 Wear protective gloves/eye protection/face protection.
P302 + P352 IF ON SKIN: Wash with plenty of water.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P313 IF exposed or concerned: Get medical advice/attention.
P313 Get medical advice/attention.
and easy to do. Continue rinsing.
P308 + P313 If exposed or concerned: Get medical advice/ attention.
P313 Get medical advice/ attention.

2.3 Other hazards
None known.

SECTION 3: Composition/information on ingredients

Chemical nature: Organic mixture in: Solvent

3.1 Substance
Not applicable

3.2 Mixtures

Hazardous components

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS-No. Registration number</th>
<th>Classification</th>
<th>Concentration (% w/w)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oxybis(2,1-ethanediyoxy-2,1-ethanediyl)diacrylate</td>
<td>17831-71-9</td>
<td>Acute Tox. 4; H302 Skin Irrit. 2; H315 Eye Dam. 1; H318</td>
<td>&gt;= 10 - &lt; 20</td>
</tr>
<tr>
<td>2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one</td>
<td>71868-10-5 01-0000015054-80-XXXX</td>
<td>Acute Tox. 4; H302 Repr. 1B; H360FD Aquatic Chronic 2; H411</td>
<td>&gt;= 3 - &lt; 10</td>
</tr>
<tr>
<td>bis(2,4,6-trimethylbenzoyl)phenylphosphine oxide</td>
<td>162881-26-7</td>
<td>Skin Sens. 1; H317 Aquatic Chronic 4; H413</td>
<td>&gt;= 1 - &lt; 2,5</td>
</tr>
</tbody>
</table>

Substances with a workplace exposure limit

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS-No. Registration number</th>
<th>Classification</th>
<th>Concentration (% w/w)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Methoxy-1-methylethyl acetate</td>
<td>108-65-6 01-2119475791-29-xxxx</td>
<td>Flam. Liq. 3; H226</td>
<td>&gt;= 20 - &lt; 25</td>
</tr>
</tbody>
</table>

SECTION 4: First aid measures

4.1 Description of first aid measures
If inhaled: fresh air. Call in physician.
In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.
Consult a physician.
In case of eye contact: rinse out with plenty of water.
Immediately call in ophthalmologist.
Remove contact lenses.
If swallowed: immediately make victim drink water (two glasses at most).
Consult a physician.
4.2 Most important symptoms and effects, both acute and delayed

Symptoms:
- Irritation and corrosion
- Allergic reactions
- Risk of serious damage to eyes.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment: No information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media:
- Water
- Foam
- Carbon dioxide (CO2)
- Dry powder

Unsuitable extinguishing media: For this substance/mixture no limitations of extinguishing agents are given.

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting: Combustible.

Vapours are heavier than air and may spread along floors. Forms explosive mixtures with air at elevated temperatures. Development of hazardous combustion gases or vapours possible in the event of fire.

5.3 Advice for firefighters

Special protective equipment for firefighters: Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

Further information:
- Cool closed containers exposed to fire with water spray. Suppress (knock down) gases/vapours/mists with a water spray jet.
- Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions:
- Advice for non-emergency personnel:
  - Do not breathe vapours, aerosols.
  - Avoid substance contact.
  - Ensure adequate ventilation.
  - Keep away from heat and sources of ignition.
Evacuate the danger area, observe emergency procedures, consult an expert.
Advice for emergency responders:
Protective equipment see section 8.

6.2 Environmental precautions
Environmental precautions : Do not flush into surface water or sanitary sewer system.
Risk of explosion.

6.3 Methods and material for containment and cleaning up
Methods for cleaning up : Cover drains. Collect, bind, and pump off spills.
Observe possible material restrictions (see sections 7 and 10).
Take up carefully with liquid-absorbent material (e.g. Chemizorb®). Dispose of properly. Clean up affected area.

6.4 Reference to other sections
Indications about waste treatment see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling
Advice on safe handling : Provide sufficient air exchange and/or exhaust in work rooms.
Do not inhale substance/mixture.
Avoid generation of vapours/aerosols.
Observe label precautions.
Advice on protection against fire and explosion : Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge.
Hygiene measures : Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

7.2 Conditions for safe storage, including any incompatibilities
Requirements for storage areas and containers : Store in original container.
Further information on storage conditions : Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition. Keep locked up or in an area accessible only to qualified or authorised persons.
Risks from decomposition products: see section 10.3
Recommended storage temperature : Recommended storage temperature see product label.

7.3 Specific end use(s)
Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.
8.1 Control parameters

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

<table>
<thead>
<tr>
<th>Substance name</th>
<th>End Use</th>
<th>Exposure routes</th>
<th>Potential health effects</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Methoxy-1-methylethyl acetate</td>
<td>Workers</td>
<td>dermal</td>
<td>Long-term systemic effects</td>
<td>153,5 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Workers</td>
<td>inhalation</td>
<td>Long-term systemic effects</td>
<td>275 mg/m3</td>
</tr>
<tr>
<td></td>
<td>Consumers</td>
<td>oral</td>
<td>Long-term systemic effects</td>
<td>1,67 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Consumers</td>
<td>dermal</td>
<td>Long-term systemic effects</td>
<td>54,8 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Consumers</td>
<td>inhalation</td>
<td>Long-term systemic effects</td>
<td>33 mg/m3</td>
</tr>
</tbody>
</table>

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

<table>
<thead>
<tr>
<th>Substance name</th>
<th>Environmental Compartment</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Methoxy-1-methylethyl acetate</td>
<td>Fresh water</td>
<td>0.635 mg/l</td>
</tr>
<tr>
<td></td>
<td>Marine water</td>
<td>0.0635 mg/l</td>
</tr>
<tr>
<td></td>
<td>Fresh water sediment</td>
<td>3.29 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Marine sediment</td>
<td>0.329 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Sewage treatment plant</td>
<td>100 mg/l</td>
</tr>
<tr>
<td></td>
<td>Soil</td>
<td>0.29 mg/kg</td>
</tr>
</tbody>
</table>

8.2 Exposure controls

Engineering measures

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

See section 7.1.

Personal protective equipment

Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of the hazardous substances handled. The chemical resistance of the protective equipment should be enquired at the respective supplier.

Eye protection : Tightly fitting safety goggles

Hand protection :

    splash contact

Glove material : Nitrile rubber

Glove thickness : 0.4 mm
The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374, for example: KCL 730 Camatril® - Velours (splash contact);

Protective measures : Flame retardant antistatic protective clothing.
Respiratory protection : required when vapours/aerosols are generated.
Recommended Filter type: ABEK-filter

Environmental exposure controls
General advice : Do not flush into surface water or sanitary sewer system.
Risk of explosion.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form : liquid

Colour : clear
colourless
to
gto
light yellow

Odour : characteristic

Odour Threshold : No information available.
pH : Not applicable

Melting point : No information available.
Boiling point : No information available.
Flash point : approximately 41 °C
Evaporation rate : No information available.
Flammability (solid, gas) : No information available.
Lower explosion limit : No information available.
Upper explosion limit : No information available.
Vapour pressure : No information available.
Relative vapour density : No information available.

Density : 1.07 g/cm³
at 25 °C
<table>
<thead>
<tr>
<th>Property</th>
<th>Information available</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solubility/ies</td>
<td>No information available.</td>
</tr>
<tr>
<td>Water solubility</td>
<td>The solvent is partially water soluble but the product forms two layers.</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>No information available.</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>No information available.</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No information available.</td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>No information available.</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No information available.</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>No information available.</td>
</tr>
</tbody>
</table>

### 9.2 Other data
None

### SECTION 10: Stability and reactivity

#### 10.1 Reactivity
Vapour/air-mixtures are explosive at intense warming.

#### 10.2 Chemical stability
The product is chemically stable under standard ambient conditions (room temperature).

#### 10.3 Possibility of hazardous reactions

<table>
<thead>
<tr>
<th>Hazardous reactions</th>
<th>Risk of ignition or formation of inflammable gases or vapours with:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Oxidizing agents</td>
</tr>
<tr>
<td></td>
<td>Violent reactions possible with:</td>
</tr>
<tr>
<td></td>
<td>alkalines</td>
</tr>
<tr>
<td></td>
<td>Peroxides</td>
</tr>
<tr>
<td></td>
<td>Strong oxidizing agents</td>
</tr>
<tr>
<td></td>
<td>Strong acids</td>
</tr>
<tr>
<td></td>
<td>Strong bases</td>
</tr>
</tbody>
</table>

#### 10.4 Conditions to avoid
Conditions to avoid: Heating.

#### 10.5 Incompatible materials
Materials to avoid: no information available

#### 10.6 Hazardous decomposition products
in the event of fire: See section 5.
SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

**Product:**

Acute oral toxicity: Acute toxicity estimate: > 2.000 mg/kg
Method: Calculation method
Symptoms: Irritations of mucous membranes in the mouth, pharynx, oesophagus and gastrointestinal tract.

Acute inhalation toxicity: Symptoms: Possible symptoms; mucosal irritations

Acute dermal toxicity: No data available

**Components:**

**Oxybis(2,1-ethanediolxy-2,1-ethanediyl)diacrylate:**

Acute oral toxicity: LD50 (Rat): 813 mg/kg

Acute inhalation toxicity: No data available
Acute dermal toxicity: No data available

**2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one:**

Acute oral toxicity: LD50 (Rat): 1.984 mg/kg
Method: OECD Test Guideline 401

Acute inhalation toxicity: No data available
Acute dermal toxicity: LD50 (Rat): > 2.000 mg/kg
Method: OECD Test Guideline 402

**bis(2,4,6-trimethylbenzoyl)phenylphosphine oxide:**

Acute oral toxicity: LD50 (Rat): > 2.000 mg/kg
Method: OECD Test Guideline 401

Acute inhalation toxicity: No data available
Acute dermal toxicity: LD50 (Rat): > 2.000 mg/kg
Method: OECD Test Guideline 402

**2-Methoxy-1-methylethyl acetate:**

Acute oral toxicity: LD50 (Rat): 8.532 mg/kg

Acute inhalation toxicity: No data available
Acute dermal toxicity: No data available
Skin corrosion/irritation

Product:

Remarks: Mixture causes skin irritation.

Components:

Oxybis(2,1-ethanediolxy-2,1-ethanediyl)diacrylate:
Result: Severe skin irritation

2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one:
Species: Rabbit
Method: OECD Test Guideline 404
Result: No irritation

bis(2,4,6-trimethylbenzoyl)phenylphosphine oxide:
Species: Rabbit
Method: OECD Test Guideline 404
Result: No skin irritation

2-Methoxy-1-methylethyl acetate:
Species: Rabbit
Exposure time: 24 h
Method: OECD Test Guideline 404
Result: No irritation

Serious eye damage/eye irritation

Product:

Remarks: Mixture causes serious eye damage.

Components:

Oxybis(2,1-ethanediolxy-2,1-ethanediyl)diacrylate:
Result: Corrosive

2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one:
Species: Rabbit
Method: OECD Test Guideline 405
Result: No eye irritation

bis(2,4,6-trimethylbenzoyl)phenylphosphine oxide:
Species: Rabbit
Method: OECD Test Guideline 405
Result: No eye irritation

2-Methoxy-1-methylethyl acetate:
Species: Rabbit
Method: OECD Test Guideline 405
Result: No eye irritation
Respiratory or skin sensitisation

**Product:**
Remarks: Mixture may cause an allergic skin reaction.

**Components:**

**2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one:**
Test Type: Sensitisation test
Species: Guinea pig
Method: OECD Test Guideline 406
Result: Does not cause skin sensitisation.

**bis(2,4,6-trimethylbenzoyl)phenylphosphine oxide:**
Species: Guinea pig
Method: OECD Test Guideline 406

**2-Methoxy-1-methylethyl acetate:**
Test Type: Maximisation Test
Exposure routes: dermal
Species: Guinea pig
Method: OECD Test Guideline 406
Result: Does not cause skin sensitisation.

Germ cell mutagenicity

**Product:**
No data available

**Components:**

**Oxybis(2,1-ethanediyoxy-2,1-ethanediyl)diacrylate:**
Genotoxicity in vitro: Test Type: Ames test
Species: Mouse lymphoma test
Result: positive

**2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one:**
Genotoxicity in vitro: Test Type: Ames test
Species: Salmonella typhimurium
Method: OECD Test Guideline 471
Result: negative

**bis(2,4,6-trimethylbenzoyl)phenylphosphine oxide:**
Genotoxicity in vitro: Test Type: Ames test
Result: negative
Remarks: (External MSDS)

**2-Methoxy-1-methylethyl acetate:**
AZ 125nXT-10A Photoresist

Genotoxicity in vitro:
- Test Type: Ames test
  - Species: Salmonella typhimurium
  - Metabolic activation: with and without metabolic activation
  - Method: OECD Test Guideline 471
  - Result: negative

Carcinogenicity

**Product:**
This information is not available.

**Components:**
This information is not available.

Reproductive Toxicity

**Components:**

2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one:
- Effects on fertility: No data available
- Effects on foetal development: No data available
- Reproductive toxicity - Assessment: Suspected human reproductive toxicant
  - Clear evidence of adverse effects on sexual function and fertility, and/or on development, based on animal experiments

STOT - single exposure

**Product:**
No data available

**Components:**
No data available

STOT - repeated exposure

**Product:**
No data available

**Components:**
No data available

Repeated dose toxicity

**Product:**
No data available

**Components:**

2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one:
- Species: Rat
- NOAEL: 75 mg/kg
- Application Route: Oral
- Method: OECD Test Guideline 408
Aspiration toxicity

**Product:**
No data available

**Components:**
No data available

Experience with human exposure

**Product:**
No data available

**Components:**
No data available

11.2 Other information

**Product:**
No data available
Other dangerous properties can not be excluded.
This substance should be handled with particular care.

SECTION 12: Ecological information

12.1 Toxicity

**Components:**

2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one:

Toxicity to fish: LC50 (Danio rerio (zebra fish)): 9 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates: EC50 (Daphnia magna (Water flea)): 15.3 mg/l
Exposure time: 24 h
Method: OECD Test Guideline 202

Toxicity to algae: ErC50 (Desmodesmus subspicatus (green algae)): 1.6 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201
GLP: yes

NOEC (Desmodesmus subspicatus (green algae)): 0.86 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201
GLP: yes

Toxicity to microorganisms: EC50 (activated sludge): > 100 mg/l
GLP:
Remarks: (External MSDS)

bis(2,4,6-trimethylbenzoyl)phenylphosphine oxide:
Toxicity to fish : LC50 (Danio rerio (zebra fish)): Exposure time: 96 h
Remarks: No observable toxic effect in saturated solution.

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): Exposure time: 48 h
Remarks: No observable toxic effect in saturated solution.

Toxicity to algae : EC50 (Desmodesmus subspicatus (Scenedesmus subspicatus)): Exposure time: 72 h
Remarks: No observable toxic effect in saturated solution.

2-Methoxy-1-methylethyl acetate:

Toxicity to fish : LC50 (S.gairdnerii): 100 - 180 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 373 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202
GLP: yes

Toxicity to algae : EC50 (Pseudokirchneriella subcapitata (green algae)): > 1.000 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 201

Toxicity to microorganisms : EC10 (activated sludge): > 1.000 mg/l
Exposure time: 30 min
Method: OECD Test Guideline 209

Toxicity to fish (Chronic toxicity) : NOEC: 47,5 mg/l
Exposure time: 14 d
Species: Oryzias latipes (Orange-red killfish)
Method: OECD Test Guideline 204
GLP: yes

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: >= 100 mg/l
Exposure time: 21 d
Species: Daphnia magna (Water flea)
Test Type: semi-static test
Method: OECD Test Guideline 211
GLP: yes

12.2 Persistence and degradability

Components:

2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one:

Biodegradability : Result: Not readily biodegradable.
Biodegradation: 0 %
Exposure time: 28 d
Method: OECD Test Guideline 301B

Result: Not readily biodegradable.
Biodegradation: 1 %
Exposure time: 28 d
Method: OECD Test Guideline 301E

**bis(2,4,6-trimethylbenzoyl)phenylphosphine oxide:**
Biodegradability: Concentration: 10 mg/l
Result: Not readily biodegradable.
Biodegradation: 1 %
Exposure time: 28 d
Method: OECD Test Guideline 301B

**2-Methoxy-1-methylethyl acetate:**
Biodegradability: Result: Readily eliminated from water
Biodegradation: 100 %
Exposure time: 8 d
Method: OECD Test Guideline 302B

Biochemical Oxygen Demand (BOD): 330 mg/g
Incubation time: 5 d
Remarks: (IUCLID)

Chemical Oxygen Demand (COD): 1.740 mg/g
Remarks: (IUCLID)

ThOD: 1.820 mg/g
Remarks: (IUCLID)

### 12.3 Bioaccumulative potential

**Components:**

**bis(2,4,6-trimethylbenzoyl)phenylphosphine oxide:**
Bioaccumulation: Species: Cyprinus carpio (Carp)
Exposure time: 28 d
Bioconcentration factor (BCF): < 5
Method: OECD Test Guideline 305C

Partition coefficient: n-octanol/water: log Pow: 5.8
Method: OECD Test Guideline 117
Remarks: Potential bioaccumulation

**2-Methoxy-1-methylethyl acetate:**
Partition coefficient: n-octanol/water: log Pow: 1.2 (20 °C)
Method: OECD Test Guideline 117
Remarks: Bioaccumulation is not expected.

### 12.4 Mobility in soil

**Components:**

**2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one:**
**12.5 Results of PBT and vPvB assessment**

**Product:**

**Assessment:** This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

**Components:**

**2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one:**

**Assessment:** Substance does not meet the criteria for PBT or vPvB according to Regulation (EC) No 1907/2006, Annex XIII.

**2-Methoxy-1-methylethyl acetate:**

**Assessment:** Substance does not meet the criteria for PBT or vPvB according to Regulation (EC) No 1907/2006, Annex XIII.

**12.6 Other adverse effects**

**Product:**

**Additional ecological information:** No data available

Discharge into the environment must be avoided.

**SECTION 13: Disposal considerations**

**13.1 Waste treatment methods**

**Product:** See www.retrologistik.com for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

**SECTION 14: Transport information**

**Air transport (IATA)**

14.1. **UN/ID No.**  UN 1993
14.2. **Proper shipping name** Flammable liquid, n.o.s. (2-Methoxy-1-methylethyl acetate)
14.3. **Class**  3
14.4. **Packing group**  III
14.5. **Environmentally**  --
hazardous
14.6 Special precautions for user: no

Sea transport (IMDG)

<table>
<thead>
<tr>
<th>14.1. UN number</th>
<th>UN 1993</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2. Proper shipping name</td>
<td>FLAMMABLE LIQUID, N.O.S. (2-Methoxy-1-methylethyl acetate)</td>
</tr>
<tr>
<td>14.3. Class</td>
<td>3</td>
</tr>
<tr>
<td>14.4. Packing group</td>
<td>III</td>
</tr>
<tr>
<td>14.5 Environmentally hazardous</td>
<td>--</td>
</tr>
<tr>
<td>14.6 Special precautions for user</td>
<td>yes</td>
</tr>
<tr>
<td>EmS Code</td>
<td>F-E, S-E</td>
</tr>
</tbody>
</table>

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not relevant

Land transport (ADR/RID)

<table>
<thead>
<tr>
<th>14.1. UN number</th>
<th>UN 1993</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2. Proper shipping name</td>
<td>FLAMMABLE LIQUID, N.O.S. (2-Methoxy-1-methylethyl acetate)</td>
</tr>
<tr>
<td>14.3. Class</td>
<td>3</td>
</tr>
<tr>
<td>14.4. Packing group</td>
<td>III</td>
</tr>
<tr>
<td>14.5 Environmentally hazardous</td>
<td>--</td>
</tr>
</tbody>
</table>

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

| Regulation (EC) No 850/2004 on persistent organic pollutants | Not applicable |
| REACH - List of substances subject to authorisation (Annex XIV) | Not applicable |
| Regulation (EC) No 1005/2009 on substances that deplete the ozone layer | Not applicable |
| REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59). | Not applicable |
| Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals | Not applicable |
| REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII) | 70657-70-4 |

P5c
FLAMMABLE LIQUIDS

Storage class : 3

Other regulations : Take note of Dir 94/33/EC on the protection of young people at work.
Observe work restrictions regarding maternity protection in accordance to Dir 92/85/EEC or stricter national regulations where applicable.

15.2 Chemical safety assessment
For this product a chemical safety assessment was not carried out.

SECTION 16: Other information

Training advice
Provide adequate information, instruction and training for operators.

Full text of H-Statements

H226 : Flammable liquid and vapour.
H302 : Harmful if swallowed.
H315 : Causes skin irritation.
H317 : May cause an allergic skin reaction.
H318 : Causes serious eye damage.
H360FD : May damage fertility. May damage the unborn child.
H411 : Toxic to aquatic life with long lasting effects.
H413 : May cause long lasting harmful effects to aquatic life.

Key or legend to abbreviations and acronyms used in the safety data sheet
Used abbreviations and acronyms can be looked up at www.wikipedia.org.

Disclaimer
The information contained herein is based on the present state of our knowledge. It characterises the product with regard to the appropriate safety precautions. It does not represent a guarantee of any properties of the product.