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

1.1. Product identifier

Product name: Roller Z4 R500 Inks

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

1.2.1. Relevant identified uses

Use of the substance/mixture: Ink for marker

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

SOCIETE BIC
14, Rue Jeanne d'Asnières
92611 CLICHY Cedex
T +33 01 45 19 52 00 - F +33 01 45 19 52 99
Bic.Contact@bicworld.com

1.4. Emergency telephone number

<table>
<thead>
<tr>
<th>Country</th>
<th>Official advisory body</th>
<th>Address</th>
<th>Emergency number</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNITED KINGDOM</td>
<td>Guy's &amp; St Thomas' Poisons Unit</td>
<td>Avonley Road</td>
<td>0870 243 2241</td>
</tr>
<tr>
<td></td>
<td>Medical Toxicology Unit, Guy's &amp; St Thomas' Hospital Trust</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Directive 67/548/EEC or 1999/45/EC

Not classified

Adverse physicochemical, human health and environmental effects

To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safety practice. Presents no particular risk to the environment, provided the disposal requirements (see section 13) and national or local regulations are complied with. Not classified as flammable by EC criteria but may present a hazard in the event of a fire.

2.2. Label elements

Labelling according to Directive 67/548/EEC or 1999/45/EC

R-phrases: -
S-phrases: -
Extra phrases: Safety data sheet available for professional user on request

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixture

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>Classification according to Directive 67/548/EEC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycerol</td>
<td>(CAS No.) 56-81-5</td>
<td>10-20</td>
<td>Not classified</td>
</tr>
<tr>
<td>(EC no) 200-289-5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Styrene</td>
<td>(CAS No.) 000100-42-5</td>
<td>1-10</td>
<td>R10 Xn; R20 X; R36/38</td>
</tr>
<tr>
<td>(EC no) 202-851-5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(EC index no) 601-026-00-0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CI basic violet 11</td>
<td>(CAS No.) 73398-89-7</td>
<td>1-&lt;3</td>
<td>T; R23 Xn; R22 X; R41 N; R51/53</td>
</tr>
<tr>
<td>(EC no) 277-459-0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CI Basic red 1</td>
<td>(CAS No.) 989-38-8</td>
<td>&lt;1</td>
<td>Xn; R22 X; R41 N; R50/53</td>
</tr>
<tr>
<td>(EC no) 213-584-9</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Item Numbers: 22579-1079

10/01/2013 EN (English) 1/6
### SECTION 4: First aid measures

#### 4.1. Description of first aid measures
- **inhalation**: Move the affected person away from the contaminated area and into the fresh air. Seek medical attention if ill effect develops.
- **skin contact**: Remove all contaminated clothing and footwear. Wash with soapy water.
- **eye contact**: Immediately rinse with water for a prolonged period while holding the eyelids wide open. If irritation persists, consult an eye specialist.
- **ingestion**: Seek medical advice (show the label where possible).

#### 4.2. Most important symptoms and effects, both acute and delayed
No additional 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 media: Foam, Powder, Carbon dioxide (CO2), Water spray.

#### 5.2. Special hazards arising from the substance or mixture
- **Fire hazard**: During combustion: Explosive vapour/air mixtures may be formed.
- **Reactivity**: To our knowledge, the product does not present any particular risk, under normal conditions of use.

#### 5.3. Advice for firefighters
- **Precautionary measures fire**: Cool down the containers exposed to heat with a water spray. Contain the spilled material by bunding. Do not attempt to take action without suitable protective equipment.
- **Protection of fire-fighters**: Self-contained breathing apparatus. Complete protective clothing.

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

##### 6.1.1. For non-emergency personnel
Emergency procedures: Do not breathe smoke. Avoid contact with skin and eyes.

##### 6.1.2. For emergency responders
Protective equipment: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

#### 6.2. Environmental precautions
Do not discharge the product into the environment. Contain the spilled material by bunding.

#### 6.3. Methods and material for containment and cleaning up
- **For containment**: Absorb spillage with: inert absorbent material, Sand/earth.
- **Methods for cleaning up**: Wash contaminated area with large amounts of water. Dispose of contaminated materials in accordance with current regulations.

#### 6.4. Reference to other sections
For further information see section 13.
SECTION 7: Handling and storage

7.1. Precautions for safe handling
Precautions for safe handling: Extraction to remove vapours at their source. Avoid contact with skin and eyes.
Hygiene measures: Do not drink, eat or smoke in the workplace. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities
Technical measures: The floor of the depot should be impermeable and designed to form a tight basin.
Storage conditions: Store in a cool, well-ventilated place. Keep container tightly closed.
Packaging materials: Store in original container.

7.3. Specific end use(s)
No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

<table>
<thead>
<tr>
<th>Glycerol (56-81-5)</th>
<th>France</th>
<th>VME (mg/m³)</th>
<th>10 mg/m³ (Aerosols)</th>
</tr>
</thead>
</table>

8.2. Exposure controls
Technical measures: Ensure good ventilation of the work station.
Hand protection: Protective rubber gloves, resistant to solvents. Breakthrough time: refer to the recommendations of the supplier.
Eye protection: Safety glasses.
Respiratory protection: If the ventilation is suitable, it is not essential to wear respiratory equipment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties
Physical state: Liquid
Colour: Variable.
Odour: Slight.
Odour threshold: No data available
pH: 5.6 - 6.7 (20°C)
Relative evaporation rate (butylacetate=1): No data available
Melting point: No data available
Freezing point: No data available
Boiling point: No data available
Flash point: No data available
Self ignition temperature: No data available
 Decomposition temperature: No data available
 Flammability (solid, gas): No data available
 Vapour pressure: No data available
 Relative vapour density at 20 °C: No data available
 Relative density: 1.0921 - 1.1062
 Solubility: Water: Soluble
 Log Pow: No data available
 Log Kow: No data available
 Viscosity, kinematic: No data available
 Viscosity, dynamic: 3.7 - 5 mPa.s (20°C)
 Explosive properties: No data available
 Oxidising properties: No data available
 Explosive limits: No data available

9.2. Other information
No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity
To our knowledge, the product does not present any particular risk, under normal conditions of use.
10.2. Chemical stability
Stable under normal conditions.

10.3. Possibility of hazardous reactions
None under normal conditions.

10.4. Conditions to avoid
Heat. Ignition sources.

10.5. Incompatible materials

10.6. Hazardous decomposition products
On combustion or on thermal decomposition (pyrolysis) releases: Carbon oxides (CO, CO2).

SECTION 11: Toxicological information

11.1. Information on toxicological effects
Acute toxicity: Not classified (Based on available data, the classification criteria are not met)
Irritation: Not classified (Based on available data, the classification criteria are not met)
Corrosivity: Not classified (Based on available data, the classification criteria are not met)
PHT: 5.6 - 6.7 (20°C)
Sensitisation: Not classified (Based on available data, the classification criteria are not met)
Repeated dose toxicity: Not classified (Lack of data)
Carcinogenicity: Not classified (Lack of data)
Mutagenicity: Not classified (Lack of data)
Toxicity for reproduction: Not classified (Lack of data)

SECTION 12: Ecological information

12.1. Toxicity
Ecology - general: No information available, however this product is not considered to present any particular risk for the aquatic environment.

12.2. Persistence and degradability
No additional information available

12.3. Bioaccumulative potential
No additional information available

12.4. Mobility in soil
No additional information available

12.5. Results of PBT and vPvB assessment
No additional information available

12.6. Other adverse effects
No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods
Waste treatment methods: Dispose of in accordance with relevant local regulations. Destroy at an authorised site.
Additional information: The user's attention is drawn to the possible existence of specific European, national or local regulations regarding disposal.

SECTION 14: Transport information

In accordance with ADR / RID / ADNR / IMDG / ICAO / IATA

14.1. UN number
No dangerous good in sense of transport regulations.

14.2. UN proper shipping name
Not applicable

14.3. Transport hazard class(es)
Not applicable

14.4. Packing group
Not applicable
14.5. Environmental hazards

Other information: No supplementary information available.

14.6. Special precautions for user

14.6.1. Overland transport
No additional information available

14.6.2. Transport by sea
No additional information available

14.6.3. Air transport
No additional information available

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

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations
No REACH Annex XVII restrictions
Contains no REACH candidate substance

15.1.2. National regulations
No additional information available

15.2. Chemical safety assessment
No chemical safety assessment has been carried out

SECTION 16: Other information

Indication of changes:
This sheet was updated (refer to the date at the top of this page). This sheet has been revised completely (changes were not marked).

Data sources:
ECHA (European Chemicals Agency), HSDB (Hazardous Substances Data Bank) (National Library of Medicine), Joint Research Centre (JRC), RTECS (Registry of Toxic effects of Chemical Substances), MSDS of suppliers.

Other information:
No experimental study is available on the mixture. Information hereunder are based on our knowledge on components, and classification of the mixture is determined with the calculation method.
Safety data sheet established by:
LISAM SERVICES - TELEGIS
Rue de la Couture F-60400 PASSEL

Full text of R-, H- and EUH-phrases:

<table>
<thead>
<tr>
<th>Acute Tox. 3 (Inhalation)</th>
<th>Acute toxicity (inhalation) Category 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Tox. 3 (Oral)</td>
<td>Acute toxicity (oral) Category 3</td>
</tr>
<tr>
<td>Acute Tox. 4 (Inhalation)</td>
<td>Acute toxicity (inhalation) Category 4</td>
</tr>
<tr>
<td>Acute Tox. 4 (Oral)</td>
<td>Acute toxicity (oral) Category 4</td>
</tr>
<tr>
<td>Aquatic Acute 1</td>
<td>Hazardous to the aquatic environment - Acute Hazard Category 1</td>
</tr>
<tr>
<td>Aquatic Chronic 1</td>
<td>Hazardous to the aquatic environment - Chronic Hazard Category 1</td>
</tr>
<tr>
<td>Aquatic Chronic 2</td>
<td>Hazardous to the aquatic environment - Chronic Hazard Category 2</td>
</tr>
<tr>
<td>Eye Dam. 1</td>
<td>Serious eye damage/eye irritation Category 1</td>
</tr>
<tr>
<td>Eye Irrit. 2</td>
<td>Serious eye damage/eye irritation Category 2</td>
</tr>
<tr>
<td>Flam. Liqu. 3</td>
<td>Flammable liquids Category 3</td>
</tr>
<tr>
<td>Skin Irrit. 2</td>
<td>Skin corrosion/irritation Category 2</td>
</tr>
<tr>
<td>H226</td>
<td>Flammable liquid and vapour.</td>
</tr>
<tr>
<td>H301</td>
<td>Toxic if swallowed.</td>
</tr>
<tr>
<td>H302</td>
<td>Harmful if swallowed.</td>
</tr>
<tr>
<td>H315</td>
<td>Causes skin irritation.</td>
</tr>
<tr>
<td>H318</td>
<td>Causes serious eye damage.</td>
</tr>
<tr>
<td>H319</td>
<td>Causes serious eye irritation.</td>
</tr>
<tr>
<td>H331</td>
<td>Toxic if inhaled.</td>
</tr>
<tr>
<td>H332</td>
<td>Harmful if inhaled.</td>
</tr>
<tr>
<td>H400</td>
<td>Very toxic to aquatic life.</td>
</tr>
<tr>
<td>H410</td>
<td>Very toxic to aquatic life with long lasting effects.</td>
</tr>
<tr>
<td>H411</td>
<td>Toxic to aquatic life with long lasting effects.</td>
</tr>
<tr>
<td>R10</td>
<td>Flammable.</td>
</tr>
</tbody>
</table>

10/01/2013 EN (English)
### MSDS for #22579 - BIC Z4 ROLLERBALL PEN

#### Safety Data Sheet

according to Regulation (EC) No. 453/2010

10/01/2013 EN (English)

**Item Numbers:** 22579-1079

---

**Table:**

<table>
<thead>
<tr>
<th>RM</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>R20</td>
<td>Harmful by inhalation</td>
</tr>
<tr>
<td>R22</td>
<td>Harmful if swallowed</td>
</tr>
<tr>
<td>R23</td>
<td>Toxic by inhalation</td>
</tr>
<tr>
<td>R36/38</td>
<td>Icyrting to eyes and skin.</td>
</tr>
<tr>
<td>R41</td>
<td>Risk of serious damage to eyes</td>
</tr>
<tr>
<td>R50/53</td>
<td>Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.</td>
</tr>
<tr>
<td>R51/53</td>
<td>Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.</td>
</tr>
<tr>
<td>N</td>
<td>Dangerous for the environment</td>
</tr>
<tr>
<td>T</td>
<td>Toxic</td>
</tr>
<tr>
<td>Xi</td>
<td>Icyrating</td>
</tr>
<tr>
<td>Xn</td>
<td>Harmful</td>
</tr>
</tbody>
</table>

**SDS EU (REACH Annex II):**

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.