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

- Product identifier
  - Trade name: 46-63-A2 Violet Blue
  - Registration number: The ingredients of this ink have been pre-registered according to 1907/2006/EC (REACH)
  - Relevant identified uses of the substance or mixture and uses advised against: Currently no such applications are identified
  - Application of the substance / the preparation: Rollerball Ink

- Details of the supplier of the safety data sheet
  - Manufacturer/Supplier: SHANGHAI DOKUMENTAL INK Co. Ltd.
    No. 38 Lane 451 Mao Jia Road
    Ludian Town, Baoshan District
    Shanghai 201908, P.R. China
    Tel.: 86-21-66864551 / 66864542
  - Further information obtainable from:
    Ms. Cindy Song
    Email: cindy.song@dokumental.cn
  - Emergency telephone number:
    Mr. Bruce Gindelberger
    Tel.: mobile +86-13917914495
    Email: bruce.gindelberger@dokumental.cn

2 Hazards identification

- Classification of the substance or mixture
  - Classification according to Directive 67/548/EEC or Directive 1999/45/EC
    Xn: Harmful
    R22: Harmful if swallowed.

- Information concerning particular hazards for human and environment:
  The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

- Classification system:
  The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

- Label elements
  - Labelling according to EU guidelines:
    The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.

- Code letter and hazard designation of product:
  - Xn Harmful

- Hazard-determining components of labelling:
  - ethanediol

- Risk phrases:
  - 22 Harmful if swallowed.

- Safety phrases:
  - 23 Do not breathe vapour.
  - 36 Wear suitable protective clothing.
  - 60 This material and its container must be disposed of as hazardous waste.

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

3 Composition/information on ingredients

- Chemical characterization: Mixtures
  - Mixure of the following substances, containing non-hazardous substances and colouring agents.

- Description: Mixture of substances listed below with nonhazardous additions.

(Contd. on page 2)
4 First aid measures

- **Description of first aid measures**
  - **General information:** Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
  - **After inhalation:** Supply fresh air; consult doctor in case of complaints.
  - **After skin contact:** Generally the product does not irritate the skin.
  - **After eye contact:** Rinse opened eye for several minutes under running water.
  - **After swallowing:** Call for a doctor immediately.
  - **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:** Use fire extinguishing methods suitable to surrounding conditions.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Wear protective clothing.
- **Environmental precautions:** Dilute with plenty of water. 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). Dispose contaminated material as waste according to item 13. Ensure adequate ventilation.
- **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** Ensure good ventilation/exhaustion at the workplace. Prevent formation of aerosols.
  - **Information about fire - and explosion protection:** No special measures required.
  - **Conditions for safe storage, including any incompatibilities**
  - **Storage:**
  - **Requirements to be met by storerooms and receptacles** No special requirements.
  - **Information about storage in one common storage facility** Not required.
  - **Further information about storage conditions** None.
  - **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical facilities** No further data; see item 7.
### 9 Physical and chemical properties

**Information on basic physical and chemical properties**

- **General Information**
  - **Appearance:**
    - Form: Fluid
    - Colour: Violet
    - Odour: Product specific
    - Odour threshold: Not determined.

- **Important information on protection of health and environment, and on safety.**
  - -

- **pH-value at 25°C:** 7.3-8.3

- **Change in condition**
  - Melting point/Melting range: Undetermined.
  - Boiling point/Boiling range: 100°C

- **Flash point:** 111°C

- **Flammability (solid, gaseous):** Not applicable.

- **Ignition temperature:** 410°C

- **Decomposition temperature:** Not determined.

- **Self-igniting:** Product is not self-igniting.

- **Danger of explosion:** Product does not present an explosion hazard.

- **Explosion limits:**
  - Lower: 3.2 Vol %
  - Upper: 53.0 Vol %

- **Vapour pressure at 20°C:** 23 hPa

- **Density:** Not determined.

- **Relative density:** Not determined.

- **Vapour density:** Not determined.

- **Evaporation rate:** Not determined.

(Contd. on page 4)
Trade name: 46-63-A2 Violet Blue

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:

<table>
<thead>
<tr>
<th>LD/LC50 values relevant for classification:</th>
</tr>
</thead>
<tbody>
<tr>
<td>107-21-1 ethanediol</td>
</tr>
<tr>
<td>Oral  LD50 5840 mg/kg (rat)</td>
</tr>
<tr>
<td>Dermal LD50 9530 mg/kg (rabbit)</td>
</tr>
<tr>
<td>4129-84-4 C. I. Acid Violet 17</td>
</tr>
<tr>
<td>Oral  LD50 5005 mg/kg (rat)</td>
</tr>
</tbody>
</table>

- Primary irritant effect:
  - on the skin: No irritant effect.
  - on the eye: No irritating effect.
- Sensitization: No sensitizing effects known.
- Additional toxicological information:
  The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
  - Harmful

12 Ecological information

- Toxicity
- Aquatic toxicity: No further relevant information available.
- Persistence and degradability: No further relevant information available.
- Behaviour 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 (German Regulation) (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.
  - Other adverse effects: No further relevant information available.
13 Disposal considerations

- Waste treatment methods
- Recommendation: Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- Uncleaned packaging:
- Recommendation: Disposal must be made according to official regulations.
- Recommended cleansing agents: Water, if necessary together with cleansing agents.

14 Transport information

- Land transport ADR/RID (cross-border)
- ADR/RID class: -
- Maritime transport IMDG:
- IMDG Class: -
- Marine pollutant: No
- Air transport ICAO-TI and IATA-DGR:
- ICAO/IATA Class: -
- Packaging group: -
- Special precautions for user: Not applicable.
- Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: Not applicable.

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- National regulations:
- Technical instructions (air):

<table>
<thead>
<tr>
<th>Class</th>
<th>Share in %</th>
</tr>
</thead>
<tbody>
<tr>
<td>NK</td>
<td>50-100</td>
</tr>
</tbody>
</table>
- Waterhazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.
- Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

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
  H302 Harmful if swallowed.
  H411 Toxic to aquatic life with long lasting effects.
  R22 Harmful if swallowed.
  R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- * Data compared to the previous version altered.