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

1.1 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)

1.2 Relevant identified uses of the substance or mixture and uses advised against
Currently no such applications are identified

1.3 Details of the supplier of the safety data sheet
- Manufacturer/Supplier:
  SHANGHAI DOKUMENTAL INK Co. Ltd.
  No. 38 Lane 451 Mao Jia Road
  Luodian 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

1.4 Emergency telephone number:
- Mr. Bruce Gindelberger
  Tel.: mobile +86-13917914495
  Email: bruce.gindelberger@dokumental.cn

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
- Classification according to Regulation (EC) No 1272/2008
  GHS08 health hazard
  STOT RE 2 H373 May cause damage to the kidneys through prolonged or repeated exposure. Route of exposure: Oral.

- 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.

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

- Signal word Warning
- Hazard-determining components of labelling:
  ethanediol
- Hazard statements
  H373 May cause damage to the kidneys through prolonged or repeated exposure. Route of exposure: Oral.
- Precautionary statements
  P260 Do not breathe dust/fume/gas/mist/vapours/spray.
  P314 Get medical advice/attention if you feel unwell.
  P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3 Other hazards
- Results of PBT and vPvB assessment
  PBT: Not applicable.
  vPvB: Not applicable.
SECTION 3: Composition/information on ingredients

3.2 Chemical characterisation: Mixtures
Mixture of the following substances, containing non-hazardous substances and colouring agents.

- Dangerous components:
  - CAS: 107-21-1 ETHANEDIOL 50-100%
  - EINECS: 203-473-3
  - Xn R22
  - STOT RE 2, H373; Acute Tox. 4, H302
  - CAS: 4129-84-4 C. I. Acid Violet 17 ≤ 2,5%
  - EINECS: 223-942-6
  - N R51/53 Aquatic Chronic 2, H411

- Additional information: For the wording of the listed risk phrases refer to section 16.

SECTION 4: First aid measures

4.1 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.

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
No further relevant information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media
Use fire extinguishing methods suitable to surrounding conditions.

5.2 Special hazards arising from the substance or mixture
No further relevant information available.

5.3 Advice for firefighters
Protective equipment: No special measures required.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Wear protective clothing.

6.2 Environmental precautions:
Dilute with plenty of water.
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.

6.4 Reference to other sections
See Section 7 for information on safe handling.
See Section 9 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/exhaustion at the workplace.
Prevent formation of aerosols.

7.2 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.

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

SECTION 8: Exposure controls/personal protection

- Additional information about design of technical facilities: No further data; see item 7.
8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace:

107-21-1 ethanediol (50-100%)

IOELV Short-term value: 104 mg/m³, 40 ppm
Long-term value: 52 mg/m³, 20 ppm

Skin

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 foodstuffs, beverages and feed.
Wash hands before breaks and at the end of work.

Respiratory protection:
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or
longer exposure use self-contained respiratory protective device.

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
The selection of the suitable gloves does not only depend on the material, but also on further marks
of quality and varies from manufacturer to manufacturer. As the product is a preparation of several
substances, the resistance of the glove material cannot be calculated in advance and has therefore
to be checked prior to the application.

Penetration time of glove material
The exact break trough time has to be found out by the manufacturer of the protective gloves and has
to be observed.

Eye protection: Goggles recommended during refilling

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

General Information

Appearance:
Fluid

Colour:
Violet

Odour:
Product specific

Odour threshold:
Not determined.

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 selfigniting.

Danger of explosion:
Not determined.

Explosion limits:
Lower: 1,2 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.

Solubility in / Miscibility with water:
Fully miscible.

Partition coefficient (n-octanol/water):
Not determined.
Trade name: 46-63-A2 Violet Blue

### SECTION 10: Stability and reactivity

- **10.1 Reactivity**
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
  - No decomposition if used according to specifications.
- **10.4 Conditions to avoid**
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

### SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
  - **Acute toxicity:**
    - **Primary irritant effect:**
      - **on the skin:** No irritant effect.
      - **on the eye:** No irritating effect.
    - **Sensitisation:** No sensitising 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

### SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **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) (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.
  - **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:**
    - 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.

### SECTION 14: Transport information

- **14.1 UN-Number**
  - ADR, ADN, IMDG, IATA: Void
- **14.2 UN proper shipping name**
  - ADR, ADN, IMDG, IATA: Void

(Contd. on page 5)
**SECTION 15: Regulatory information**

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

  - National regulations:

    - Technical instructions (air):

      | Class | Share in % |
      |-------|------------|
      | NK    | 50-100     |

  - Water hazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.

- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

---

**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**
  - H302 Harmful if swallowed.
  - H373 May cause damage to the kidneys through prolonged or repeated exposure. Route of exposure: Oral.
  - 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.

- **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)
  - IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
  - ICAO: International Civil Aviation Organization
  - ICAO-TI: Technical Instructions by the "International Civil Aviation Organisation" (ICAO)
  - 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
  - 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)
  - Acute Tox. 4: Acute toxicity, Hazard Category 4
  - Aquatic Chronic 2: Hazardous to the aquatic environment, Chronic Hazard, Category 2

- **Data compared to the previous version altered.**