

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

- **Product identifier**
- **Trade name:** 36-20-B4 red
- **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** water based rollerball ink
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
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.....  
.....
- **Further information obtainable from:**  
.....  
.....
- **Emergency telephone number:**  
.....  
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### 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.  
26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
36/39 Wear suitable protective clothing and eye/face protection.  
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**  
Mixture of the following substances, containing non-hazardous substances and colouring agents.
- **Description:** Mixture of substances listed below with nonhazardous additions.
- **Dangerous components:**

CAS: 107-21-1	ethanediol	Xn R22	25-50%
EINECS: 203-473-3		Acute Tox. 4, H302	

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CAS: 18472-87-2 EINECS: 242-355-6	C.I. Acid Red 92	Xi R36 Eye Irrit. 2, H319	≤ 2,5%
CAS: 17372-87-1 EINECS: 241-409-6	C. I. ACID RED 87	Xi R41 Eye Dam. 1, H318	≤ 2,5%

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

#### 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. Then consult a doctor.
- 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: 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.
- Control parameters

Ingredients with limit values that require monitoring at the workplace:

107-21-1 ethanediol (25-50%)

IOELV	Short-term value: 104 mg/m <sup>3</sup> , 40 ppm Long-term value: 52 mg/m <sup>3</sup> , 20 ppm Skin
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- Additional information: The lists valid during the making were used as basis.

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- **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 can not be calculated in advance and has therefore to be checked prior to the application.
- **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:** Goggles recommended during refilling

## 9 Physical and chemical properties

- **Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**

Form:	Fluid
Colour:	According to product specification
- **Odour:** Product specific
- **Odour threshold:** Not determined.
- **Important information on protection of health and environment, and on safety.**

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- **pH-value:** 7,3-7,9
- **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:** 400°C
- **Decomposition temperature:** Not determined.
- **Self-igniting:** Product is not selfigniting.
- **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 at 20°C:** 1,109-1,119 g/cm<sup>3</sup>
- **Relative density** Not determined.
- **Vapour density** Not determined.
- **Evaporation rate** Not determined.
- **Solubility in / Miscibility with water:** Not miscible or difficult to mix.
- **Segregation coefficient (n-octanol/water):** Not determined.
- **Viscosity:**

Dynamic at 20°C:	5,7-6,3 mPas
Kinematic:	Not determined.
- **Solvent content:**

Organic solvents:	10,0 %
Water:	40,2 %
- **Solids content:** 6,5 %

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• Other information

No further relevant information available.

## 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:
- LD/LC50 values relevant for classification:

107-21-1 ethanediol

Oral	LD50	5840 mg/kg (rat)
Dermal	LD50	9530 mg/kg (rbt)

- 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.

## 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: -

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- *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):*

Class	Share in %
NK	50-100
- *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.
  - H318 Causes serious eye damage.
  - H319 Causes serious eye irritation.
  - R22 Harmful if swallowed.
  - R36 Irritating to eyes.
  - R41 Risk of serious damage to eyes.
- *\* Data compared to the previous version altered.*