1. Product and Company Identification

**Product group:** Ink

**Commercial product name**

Inkjet Cartridge Red Fluorescent

**Use of the substance/mixture**

Inkjet printing

**Company/undertaking identification**

Company name: Francotyp-Postalia GmbH
Street: Triftweg 21-26
Place: D-16547 Birkenwerder
Telephone: +49 - 3303 /525-0
Telefax: +49 - 3303 /525-799
e-mail: info@francotyp.com

Responsible Department: IFZ Ingenieurbüro und Consulting GmbH
Telephone: +49 - 30 / 2904897-10
Telefax: +49 - 30 / 2904897-20

Emergency telephone: Internationale Hotline: +49 6131 / 19240

**Further Information**

Apply Safety data sheet to the following products:
Part-No.
58.0032.0022.00
58.0033.3138.00
58.0038.3187.00
58.0038.3190.00
58.0038.3171.00
58.0038.3173.00
58.0052.3028.00
58.0052.3038.00

2. Hazards Identification

**Route(s) of Entry**
Ingestion. Skin contact. Eye contact.

**Signs and Symptoms of Exposure**

Ink: Any potential hazards are presumed to be due to exposure to the components. Repeated or prolonged exposure may cause irritation of eyes and skin.

Carcinogenicity (NTP): None of the ingredients is listed.
Carcinogenicity (IARC): None of the ingredients is listed.
Carcinogenicity (OSHA): None of the ingredients is listed.

**Special hazards for human health and environment**
The product does not need to be labelled in accordance with EC directives or respective national laws. Repeated or prolonged exposure may cause irritation of eyes and skin. See section 11

3. Composition/Information on Ingredients

**Chemical characterization** (Mixture)
Aqueous solution of chemicals
Hazardous components

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Components</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>616-45-5</td>
<td>2-pyrrolidone</td>
<td>&lt; 5 %</td>
</tr>
<tr>
<td>112-60-7</td>
<td>tetraethylene glycol</td>
<td>&lt; 5 %</td>
</tr>
<tr>
<td>*</td>
<td>alkylidol ethoxylate</td>
<td>&lt; 2.5 %</td>
</tr>
</tbody>
</table>

Further Information
- * = proprietary
- This ink supply contains an aqueous ink formulation.

4. First Aid Measures

**General information**
If symptoms persist, call a physician. Never give anything by mouth to an unconscious person.

**After inhalation**
Ink: Move out of dangerous area. Move to fresh air. If symptoms persist, call a physician.

**After contact with skin**
Ink: Take off contaminated clothing and shoes immediately. Wash contaminated skin areas thoroughly with soap and water. Do not use solvents or thinners. If symptoms persist, call a physician.

**After contact with eyes**
Ink: Remove contact lenses, if applicable. Rinse with plenty of water immediately, also under the eyelids, for at least 15 minutes. If symptoms persist, call a physician.

**After ingestion**
Ink: If swallowed, seek medical advice immediately and show this container or label.

5. Fire Fighting Measures

**Suitable extinguishing media**
Carbon dioxide (CO2), foam, dry powder, water spray.
Water mist may be used to cool closed containers.

**Unsuitable extinguishing media**
None known.

**Special hazards arising from the chemical**
Under conditions giving incomplete combustion, hazardous gases produced may consist of: Carbon dioxide, nitrogen oxides (NOx), carbon monoxide (CO), various hydrocarbons

**Additional information**
Prevent extinguishing water used by the fire department, or any other forms of the diluted product, from ending up in surface water or drinking water reservoirs. Do not let product enter drains.

6. Accidental Release Measures

**Personal precautions**
Provide adequate ventilation. Do not breathe in vapors. Use personal protective equipment.

**Environmental precautions**
Contact the responsible authority immediately if the product ends up in the soil, a body of water, or the sewer system.

**Methods for cleaning up/taking up**
Do not let product enter drains. Spilled or leaking material is to be soaked up with non-flammable absorbent materials (sand, soil, diatomaceous earth) and put in containers. Dispose of as described in chapter 13.
Additional information
See section 7, 8.

7. Handling and Storage

Handling
Advice on safe handling
Keep container tightly closed. Protect against extreme heat or cold weather. Avoid contact with skin and eyes. When using, do not eat, drink, or smoke. Wash hands before breaks and at the end of the workday. Keep out of the reach of children.

Storage
Requirements for storage rooms and vessels
Keep containers tightly closed in a dry, cool, and well-ventilated place. Keep away from heat and sources of ignition.

Advice on storage compatibility
Store separately from: Strong bases

8. Exposure Controls/Personal Protection

Exposure limit values
Additional advice on limit values
Not applicable

Exposure controls
Protective and hygiene measures
Do not eat, drink, smoke or take snuff at work. Avoid contact with skin and eyes. Wash hands before breaks and at the end of the workday. Apply lotion to hands afterwards. Take off all contaminated clothing immediately. Remove and wash contaminated clothing before re-use. Use only in well-ventilated areas.

Respiratory protection
Not applicable

Hand protection
Ink: Protective gloves

Eye protection
In case of risk of splashing, wear protective glasses.

9. Physical and Chemical Properties

Appearance
Physical state: liquid
Color: red

Important health, safety and environmental information
Test method
pH-Value: 8 - 8,8

Changes in the physical state
Boiling point: n.d.
Flash point: > 200 °F / > 93 °C P/M Pensky-Martens

Flammability
Solid: n.d.a.
Gas: n.d.a.

Lower explosion limits:
Upper explosion limits:
Vapour pressure: n.d.
Density: 1 - 1.2 g/cm³
Water solubility: miscible
Viscosity / dynamic: < 2 mPa·s
Vapour density: > 1

Other information
Autoignition temperature
Solid: n.d.a.
Gas: n.d.a.
Ignition temperature: n.d.

10. Stability and Reactivity
Stability
Stable

Conditions to avoid
Stable at normal conditions. See section 7.

Materials to avoid
Incompatible with strong bases and oxidizing agents.

Hazardous decomposition products
See section 5.

Possibility of hazardous reactions
Will not occur

11. Toxicological information
Acute toxicity
No data is available on the product itself.
2-Pyrrolidone: LD50/oral/rat: > 3200 mg/kg (literature value)
Tetraethylene glycol: LD50/oral/rat: 34.8 g/kg (literature value)

Specific effects in experiment on an animal
None known.

Irritation and corrosivity
Any potential hazards are presumed to be due to exposure to the components. Repeated or prolonged exposure may cause irritation of eyes and skin.

Skin contact:
2-Pyrrolidone: May cause skin irritation.
Alkylidiol ethoxylate: May cause skin severe irritation.
Tetraethylene glycol: May cause skin irritation.

Eye contact
2-Pyrrolidone: Contact with eyes may result in irritation.
Tetraethylene glycol: Contact with eyes may result in irritation.
Alkylidiol ethoxylate: Contact can cause moderate to severe irritation and possible injury to the eyes.

Inhalation
2-Pyrrolidone: Inhalation may result in respiratory irritation.
Alkylidiol ethoxylate: Inhalation may result in respiratory irritation.

Ingestion
2-Pyrrolidone: Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.
Alkydiol ethoxylate: Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

**Sensitizing effects**
None known.

**Carcinogenic/mutagenic/toxic effects for reproduction**
None known.

### 12. Ecological Information

**Ecotoxicity**
LC50/96h/Fathead minnows: \( \geq 750 \text{ mg/L} \).

**Mobility**
No data available.

**Persistence and degradability**
No data available.

**Bioaccumulative potential**
No data available.

**Further information**
In the case of appropriate handling and use no ecological problems are to be expected.

### 13. Disposal considerations

**Advice on disposal**
Do not let product enter drains. Disposal in accordance with the official regulations.

### 14. Transport Information

**Land transport (ADR/RID)**
Not classified as dangerous regarding transport regulations.

**Marine transport**
Not classified as dangerous regarding transport regulations.

**Air transport**
Not classified as dangerous regarding transport regulations.

### 15. Regulatory Information

**U.S. regulations**

**National inventory TSCA**
SARA 302 (extremely hazardous substances):
None of the ingredients is listed.

SARA 313 (specific toxic chemical listings):
None of the ingredients is listed.

**State regulations**
Pennsylvania
616-45-5

Massachusetts
616-45-5
16. Other Information

Hazardous Materials Information label (HMIS)

<table>
<thead>
<tr>
<th>Category</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health</td>
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</tr>
<tr>
<td>Flammability</td>
<td>1</td>
</tr>
<tr>
<td>Physical Hazard</td>
<td>0</td>
</tr>
</tbody>
</table>

NFPA hazard ratings

<table>
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<th>Rating</th>
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<tbody>
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<td>Health</td>
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<tr>
<td>Flammability</td>
<td>1</td>
</tr>
<tr>
<td>Reactivity</td>
<td>0</td>
</tr>
<tr>
<td>Unique Hazard</td>
<td></td>
</tr>
</tbody>
</table>

Other data
The information is based on present levels of our knowledge. It does not, however, give assurances of product properties and establishes no contract legal rights.
The product is to be used exclusively for the applications named in the technical leaflet or in the processing instructions.
The receiver of our product is singularly responsible for adhering to existing laws and regulations.

Changes
Sections which have been changed in comparison to the preceding edition: 1, 4, 7, 8, 10, 12, 14

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)