1. Identification of substance/ mixture and of the company

**Product information:** TEST INK PINK 46 to 60 mN/m

**Use of the mixture:** Checking the surface energy and the surface cleanness of film surfaces, plastics or the solid

**Supplier:** UV Process Supply, Inc
1229 W. Cortland Street
Chicago, IL 60614-4805 USA
Tel: (773) 248-0099 Fax: (773) 880--6647
info@uvps.com www.uvprocess.com

2. Hazards identification

**Classification** (REGULATION (EC) No. 1272/2008):
Flammable liquids, Category 3 H226

**Classification** (67/548/EEC or 1999/45/EC (repeal 01 June 2015)):
F; R10

For the full text of the R-phrases and H-statements mentioned in this Section, see Section 16

**GHS Labelling**

**Signal word:** Warning

**Hazard pictograms**

- Flammable liquid and vapour.

**Precautionary statements**
P210: Keep away from heat/sparks/open flames/hot surfaces. – No smoking.

**Index-No.:**

<table>
<thead>
<tr>
<th>Proprietary Ingredient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labelling (67/548/EEC or 1999/45/EC)</td>
</tr>
<tr>
<td>Symbols: F  flammable</td>
</tr>
<tr>
<td>R-phrases: 10 flammable</td>
</tr>
<tr>
<td>S-phrases: 7-16 Keep container tightly closed. Keep away from sources of ignition – No smoking.</td>
</tr>
<tr>
<td>EC- No. 200-578-6</td>
</tr>
</tbody>
</table>
3. Composition / information on ingredients

<table>
<thead>
<tr>
<th>Name</th>
<th>Formula</th>
<th>%</th>
<th>CAS-No.</th>
<th>INDEX-No.</th>
<th>EC-No.</th>
<th>Molar g/mol</th>
</tr>
</thead>
<tbody>
<tr>
<td>*Trade Secret/Proprietary Chemical #1</td>
<td>Proprietary</td>
<td>2-20</td>
<td>Proprietary</td>
<td>Proprietary</td>
<td>Proprietary</td>
<td>46,07</td>
</tr>
<tr>
<td>Water</td>
<td>H₂O</td>
<td>80-98</td>
<td>7732-18-5</td>
<td>231-791-2</td>
<td></td>
<td>18,02</td>
</tr>
</tbody>
</table>

Preparation from organic solvents and basic dye ingredients (0.2%).
No disclosure requirement according to Regulation (EC) no. 1907/2006.

*NOTE: Information specific for these chemicals is available upon request to customers in possession of this test pen set. Please contact supplier.

4. First aid measures

After inhalation: fresh air.
After skin contact: wash off with plenty of water. Remove contaminated clothing.
After eye contact: rinse out with plenty of water with the eyelid held wide open. Call in ophthalmologist if necessary.
After swallowing: immediately make victim drink water (two glasses at the most). Consult doctor in the event of any complaints.

Most important symptoms and effects, both acute and delayed:
Irritant effects, respiratory paralysis, dizziness, narcosis, inebriation, euphoria, nausea, vomiting

Indication of any immediate medical attention and special treatment needed.
No information available

5. Fire-fighting measures

Suitable extinguishing media
Carbon dioxide (CO2), foam, dry powder, water

Specific hazards during arising from the mixture
Combustible material. Vapours are heavier than air and may spread along floors. Forms explosive mixture with air at ambient temperatures. Pay attention to flashback. Development of hazardous combustion gases or vapours possible in the event of fire.

Advice for firefighters
In the event of fire, wear self-contained breathing apparatus.

Further information
Prevent fire extinguishing water from contaminating surface water or the ground water system. Remove container from danger zone and cool with water.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures
Avoid for non-emergency personnel: Avoid substance contact. Do not breathe vapours, aerosols. Ensure adequate ventilation. Keep away from open flames, hot surfaces and sources of ignition. Evacuate the danger area, observe emergency procedures, and consult an expert.

Advice for emergency responders: Protective equipment see section 8.f
Environmental precautions
Do not empty into drains. Risk of explosion.

Methods and materials for containment and cleaning up
Cover drains. Collect, bind and pump off spills.
Observe possible material restrictions (see section 7 and 10)
Take up with liquid-absorbent material (e.g. Chemizorb®). Forward for disposal. Clean up affected area.

Reference to other sections
Indications about waste treatment see section 13

7. Handling and storage

Precautions for safe handling
Observe label precautions.

Advice on protection against fire and explosion
Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge.

Conditions for safe storage, including any incompatibilities:
Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition.
Store at +15°C to 25°C.

Specific end use
Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

8. Exposure controls / personal protection

Components with workplace control parameters
EH40 WEL
Name: Chemical #1
Value (TWA): 1000 ppm
1920 mg/m³

Recommended monitoring procedures
Methods for measurement of the workplace atmosphere have to correspond to the requirements of norms DIN EN 482 and DIN EN 689.

Engineering measures
Technical measures and appropriate working operations should be given priority over the use of personal protective equipment

Individual protective measures
Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled. The resistance of the protective clothing to chemicals should be ascertained with the respective supplier.

Hygiene measures:
Change contaminated clothing. Application of skin-protective barrier cream recommended. Wash hands after working with substance.

Hand protection: full contact:
Glove material: butyl-rubber, Glove thickness 0.7 mm, > 480 min Break through time.
Splash contact: Glove material nitrile rubber, Glove thickness 0.4 mm, > 120 min Break through time.
9. Physical and chemical properties

Form: liquid
Colour: pink

Properties for 100 % ethanol:

Odour: alcohol-like
Odour threshold: 0.1 – 5058.5 ppm
pH: (20°C) 7.0 at 10 g/l
Viscosity, dynamic: (20°C) 1.2 mPa. S
Melting point: -114.5°C
Boiling point/boiling range: 78.3°C
Ignition temperature: 425 °C (DIN 51794)
Flash point: 12°C c.c.
Oxidizing properties: no data available
Flammability: no data available
Lower explosion limit: 3.5 Vol%
Upper explosion limit: 15 Vol%
Vapour pressure: (20°C): 59 hPa
Relative vapour density: 1.6
Density: (20°C) 0.790 – 0.793 g/cm³
Solubility: no data available
Water solubility: (20°C) completely miscible
Partition coefficient; n: log Pow: -0.31
Octanol/water: Method: (experimental)

(Lit.) No bioaccumulation is to be expected (log Pow <1)

Evaporation rate: no data available

10. Stability and reactivity

Reactivity:
Vapours may from explosive mixture with air.

Chemical stability:
The product is chemically stable under standard ambient conditions (room temperature)
Possibility of hazardous reactions:
Risk of explosion with: Risk of ignition or formation of inflammable gases or vapours with:
Alkali metals, alkaline earth metals, alkali oxides, strong oxidizing agents, halogen- halogen compounds,
chromyl chloride, ethylene oxide, fluorine, perchlorates, potassium permanganate, sulphur acid, perchloric
acid, permanganic acid, oxides of phosphorus, nitric acid, nitrogen dioxide, uranium hexafluoride, hydrogen
peroxide, chromium (VI) oxide

Conditions to avoid:
Warming. A range from approx. 15 Kelvin below the flash point is to be rated as critical.
Materials to avoid:

Hazardous decomposition products:
No information available

11. Toxicological Information

Acute toxicity
Oral: LD50 rat: Dose 6200 mg/kg (IUCLID); Symptoms: nausea, vomiting
Inhalative: LC50 rat: Dose: 95.6 mg/l, 4h (RTECS); Symptoms: slight mucosal irritations, absorption

Skin irritation (rabbit): no irritation (OECD 404) Drying-out effect resulting in rough and chapped skin.

Possible damages: Dermatitis

Eye irritation (rabbit): no eye irritation (OECD 405)

Sensitization: negative (ICUCLID)

Gentoxicity in vitro Ames test (Salmonella typhimurium: negative (National Toxicology Program)

Specific target organ toxicity – single exposure
The mixture is not classified as specific target organ toxicant, single exposure.

Specific target organ toxicity – repeated exposure
The mixture is not classified as specific target organ toxicant, repeated exposure.

Aspiration hazard
Based on available data the classification criteria are not met.

Further Information
Systemic effects: euphoria
After absorption of large quantities: dizziness, inebriation, narcosis, respiratory paralysis

Further data:
Handle in accordance with good industrial hygiene and safety practice.

12. Ecological information

Ecotoxicity:
Toxicity to fish: LC50 Leuciscus idus: >8140 mg/l/ 48 h (IUCLID)
Toxicity to daphnia: EC50 Entosiphon sulcatum: 65 mg/l /72 h (maximum permissible toxic concentration) (Lit)
EC50 Daphnia magna: 9268-14221 mg/l /48 h (IUCLID)
Toxicity to algea: IC50 Scenedesmus quadricauda: 5000 mg/l /7 h (maximum permissible toxic concentration) (Lit)
Toxicity to bacteria: EC10 Pseudomonas putida: 6500 mg/l 16 h (maximum permissible toxic concentration) (IUCLID)
Persistence and degradability

Biodegradability: readily biodegradable: 94% (OECD 301E)

Biochemical Oxygen Demand (BOD): 930 - 1670 mg/g (5d) (Lit.)
Chemical Oxygen Demand (COD): 1990 mg/g (IUCLID)
Theoretical Oxygen Demand (ThOD): 2100 mg/g (IUCLID)

Ratio BOD/ThBOD BOD5 74 % (IUCLID)
Ratio COD/ThBOD 90 % (Lit)

Bioaccumulative potential
Partition coefficient; n-octanol / water
Log Pow: -0.31 (experimental) (Lit)
No bioaccumulation is to be expected (log Pow<1)

Mobility in soil
No information available

Results of PBT and vPvB assessment
PBT/vPvB assessment not available as chemical safety assessment not required / not conducted.

Additional ecological information
Biologic effects:
No interference with wastewater treatment plants are to be expected when used properly.
Discharge into the environment must be avoided.

13. Disposal considerations

Waste treatment methods:
Waste material must be disposed of in accordance with the directive on waste 2008/98/EC as well as other national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself.

14. Transport information

Not subject to transport regulations because the ratio of ethanol is less than 24 %.

15. Regulatory information

Labelling according to EC Directives
Symbol: F flammable
R-Phrases: 10 flammable
S-Phrases: 7-16 Keep container tightly closed. Keep away from ignition sources. No smoking.

EC-No. Chemical #1 EC Label

National legislation:
Storage class VCI: 3 flammable liquids

Major Accident Hazards: 96/82/EC Update: 2003
Legislation: flammable. /b
Quantity 1: 5000 t
Quantity 2: 50000 t

Other regulations:
Take note of Dir 94/33/EC on the protection of young people at work. Take note of Dir 92/85/EEC on the safety and health at work of pregnant workers.

16. Other information

Full text of R-phrases referred to under section 2 and 3.

R10 flammable.

The hazards mentioned in this sheet can occur when bigger amounts of the product are handled improperly or carelessly, and when protection and hygienic measures are not observed. As for the measurement of the surface tension only an amount of some milligrams is needed, and as the measurements are not taking place continually, but in intervals of maybe one or even several hours, any hazards can practically be excluded, if the product is handled properly and the safety regulations (including a sufficient ventilation and an appropriate hand protection) are observed.

Information: Tel: (773) 248-0099 Fax: (773) 880-6647 info@uvps.com

The information contained herein is based on the present state of our knowledge. It characterises the product with regard to the appropriate safety precautions. It does not represent a guarantee of the properties of the product.