

Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 05/13/2005

Reviewed on 05/13/2005

1 Identification of substance

- **Product details**
- **Trade name:** FISI Picture Perfect Ink
- **Article number:** FISI:110,111,115,309,310,315,316,510,515,810
- **Manufacturer/Supplier:**
Triangle Digital LLC
2125 Williams Street
San Leandro, Ca, 94577
TEL:(510)895-8001
FAX:(510)895-8080
www.triangledigital.biz
- **Information department:** Product safety department.



2 Composition/Data on components

- **Chemical characterization**
- **Description:** Mixture of the substances listed below with nonhazardous additions.

- **Dangerous components:**

	2-butoxyethyl acetate	40-85%
EINECS: 203-631-1	cyclohexanone	10-15%
	Glycol Ether DPM Acetate	<5%
EINECS: 212-828-1	N-methyl-2-pyrrolidone	<5%

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

3 Hazards identification

- **Hazard description:**



Xn Harmful

- **Information pertaining to particular dangers for man and environment:**
The product has to be labelled due to the calculation procedure of international guidelines.
R 20/21 Harmful by inhalation and in contact with skin.
- **Classification system:**
The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.
- **NFPA ratings (scale 0 - 4)**



Health = 2
Fire = 2
Reactivity = 0

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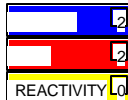
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- **HMIS-ratings (scale 0 - 4)**



Health = 2

Fire = 2

Reactivity = 0

4 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. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

In case of unconsciousness place patient stably in side position for transportation.

- **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:** If symptoms persist consult doctor.

5 Fire fighting measures

- **Suitable extinguishing agents:** CO₂, sand, extinguishing powder. Do not use water.

- **For safety reasons unsuitable extinguishing agents:** Water

- **Protective equipment:** Mouth respiratory protective device.

6 Accidental release measures

- **Person-related safety precautions:** Not required.

- **Measures for environmental protection:** Do not allow to enter sewers/ surface or ground water.

- **Measures for cleaning/collecting:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

Do not flush with water or aqueous cleansing agents

7 Handling and storage

- **Handling:**

- **Information for safe handling:**

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

- **Information about protection against explosions and fires:** No special measures required.

- **Storage:**

- **Requirements to be met by storerooms and receptacles:** No special requirements.

- **Information about storage in one common storage facility:** Not required.

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- **Further information about storage conditions:** Keep receptacle tightly sealed.

8 Exposure controls and personal protection

- **Additional information about design of technical systems:** No further data; see item 7.

- **Components with limit values that require monitoring at the workplace:**

2-butoxyethyl acetate

REL 33 mg/m³, 5 ppm

Skin

TLV 130 mg/m³, 20 ppm

cyclohexanone

PEL 200 mg/m³, 50 ppmREL 100 mg/m³, 25 ppm

Skin

TLV 50 mg/m³, 20 ppm

Skin

- **Additional information:** The lists that were valid during the creation were used as basis.

- **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.

Avoid contact with the eyes and skin.

- **Breathing equipment:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

- **Protection of hands:**



Protective gloves

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.

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- **Eye protection:** Goggles recommended during refilling.

9 Physical and chemical properties

· General Information

Form:	Fluid
Color:	According to product specification
Odor:	Characteristic

· Change in condition

Melting point/Melting range: Undetermined.
Boiling point/Boiling range: 153°C (307°F)

· **Flash point:** 62°C (144°F)

· **Ignition temperature:** 280.0°C (536°F)

· **Auto igniting:** Product is not selfigniting.

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

· Explosion limits:

Lower: 1.3 Vol %
Upper: 9.4 Vol %

· **Vapor pressure at 20°C (68°F):** 5.0 hPa (4 mm Hg)

· **Density:** Not determined.

· Solubility in / Miscibility with

Water: Not miscible or difficult to mix.

· Viscosity:

Dynamic at 20°C (68°F): 13 mPas

· Solvent content:

Organic solvents: 93.1 %
VOC content: 87.3 %
 0.93 kg/l / 7.78 lb/gal

· **Solids content:** 6.9 %

10 Stability and reactivity

· **Thermal decomposition / conditions to be avoided:**

No decomposition if used according to specifications.

· **Dangerous reactions** No dangerous reactions known.

· **Dangerous products of decomposition:** No dangerous decomposition products known.

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11 Toxicological information

· **LD/LC50 values that are relevant for classification:**

2-butoxyethyl acetate

Oral	LD50	2400 mg/kg (rat)
Dermal	LD50	1580 mg/kg (rabbit)

cyclohexanone

Oral	LD50	1535 mg/kg (rat)
Dermal	LD50	948 mg/kg (rabbit)
Inhalative	LC50/4 h	8000 mg/l (rat)

· **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 internally approved calculation methods for preparations:

Harmful

12 Ecological information

· **General notes:**

Water hazard class 1 (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.

13 Disposal considerations

· **Product:**

· **Recommendation:**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

· **Uncleaned packagings:**

· **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

· **DOT regulations:**

· **Proper shipping name (technical name):** Printing Ink, Non-Regulated

· **Label:** None (Non-Regulated)

· **Remarks:** None, Non-Regulated

· **Land transport ADR/RID (cross-border):**

· **Description of goods:** Printing Ink, Non-Regulated

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· Remarks:	None, Non-Regulated
· Maritime transport IMDG:	
· UN Number:	
· Label	None (Non-Regulated)
· Marine pollutant:	No
· Proper shipping name:	Printing Ink, Non-Regulated
· Remarks:	None, Non-Regulated
· Air transport ICAO-TI and IATA-DGR:	
· UN/ID Number:	
· Label	None (Non-Regulated)
· Proper shipping name:	Printing Ink, Non-Regulated
· Remarks:	None, Non-Regulated

15 Regulations

- **Sara**

- **Section 355 (extremely hazardous substances):**

None of the ingredient is listed.

- **Section 313 (Specific toxic chemical listings):**

N-methyl-2-pyrrolidone

- **TSCA (Toxic Substances Control Act):**

2-butoxyethyl acetate

cyclohexanone

N-methyl-2-pyrrolidone

2,4,7,9-tetramethyldec-5-yne-4,7-diol

(2-methoxymethylethoxy)propanol

- **Proposition 65**

- **Chemicals known to cause cancer:**

None of the ingredients is listed.

- **Chemicals known to cause reproductive toxicity:**

None of the ingredients is listed.

- **Carcinogeny categories**

- **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

- **IARC (International Agency for Research on Cancer)**

cyclohexanone

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- **NTP (National Toxicology Program)**

None of the ingredients is listed.

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· TLV (Threshold Limit Value established by ACGIH)	
cyclohexanone	A4

· NIOSH-Ca (National Institute for Occupational Safety and Health)	
None of the ingredients is listed.	

· OSHA-Ca (Occupational Safety & Health Administration)	
None of the ingredients is listed.	

- **Product related hazard informations:**

The product has been classified and marked in accordance with directives on hazardous materials.

- **Hazard symbols:**

Xn Harmful

- **Hazard-determining components of labelling:**

2-butoxyethyl acetate

- **Risk phrases:**

20/21 Harmful by inhalation and in contact with skin.

- **Safety phrases:**

2 Keep out of the reach of children.

36/37 Wear suitable protective clothing and gloves.

46 If swallowed, seek medical advice immediately and show this container or label.

56 Dispose of this material and its container to hazardous or special waste collection point.

- **National regulations:**

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

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.

- **Department issuing MSDS:** Product safety department.

- **Contact:** Mr. Ken Kisner