

Material Safety Data Sheet
acc. to ISO/DIS 11014

Printing date: 11/29/1999

Revision date: 11/29/1999

1 Identification of substance:

- **Product details:**
- **Trade name: Type FD Green Ink**
- **Manufacturer/Supplier:**
Universal Stenciling & Marking Systems
P.O. Box 871
St. Petersburg, FL 33731
Phone: 727-894-3027
Fax: 727-821-7944
- **Emergency information:** Chemtrec: 703-527-3887

2 Composition/Data on components:

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

Dangerous components:

1330-20-7 xylene (mix)	60-80 %
100-41-4 ethylbenzene	5-20 %
108-88-3 toluene	0-5 %

3 Hazards identification

- **Hazard description:**
Harmful
Highly flammable
- **Information pertaining to particular dangers for man and environment:**
Highly flammable.
Harmful by inhalation and in contact with skin.
Irritating to 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 = 3
Reactivity = 0
- **HMIS Rating (scale 0-4)**
Health - 2
Flammability - 3
Reactivity - 0

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- **Routes of Entry**
Skin
Ingestion
Inhalation
- **Target Organs**
Lungs
Eyes
- **Irritancy**
Eyes
Respiratory Tract
Skin
- **Sensitizing Capability** None known
- **Reproductive Effects** None known
- **Cancer Information** Not known to be carcinogenic.

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**
Immediately wash with water and soap and rinse thoroughly.
- **After eye contact**
Rinse opened eye for several minutes under running water.
- **After swallowing**
Do not induce vomiting; immediately call for medical help.

5 Fire fighting measures

- **Suitable extinguishing agents**
Special powder for metal fires. Do not use water.
CO₂, sand, extinguishing powder. Do not use water.
- **For safety reasons unsuitable extinguishing agents**
Water.
Water with full jet.
- **Protective equipment:** Mount respiratory protective device.

6 Accidental release measures

- **Person-related safety precautions:**
Wear protective equipment. Keep unprotected persons away.

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- **Measures for environmental protection:**
Do not allow product to reach sewage system or any water course.
Prevent seepage into sewage system, workpits and cellars.
Inform respective authorities in case of seepage into water course or sewage system.
- **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.
- **Information about protection against explosions and fires:**
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
- **Storage**
- **Requirements to be met by storerooms and receptacles:**
Store in a cool location.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Keep receptacle tightly sealed.
Store in cool, dry conditions in well sealed receptacles.
- **Maximum storage temperature:** 120 F (49 C)
- **Minimum storage temperature** 35 F (2 C)

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:

1330-20-7 xylene (mix)

ACGIH TLV: Short-term value: 434,A4 mg/m³, 100,A4 ml/m³Long-term value: 651,A4 mg/m³, 150,A4 ml/m³

(q)

NIOSH REL: Short-term value: 435 mg/m³, 100 ml/m³Long-term value: 655 mg/m³, 150 ml/m³

(o-, m-, & p-isomers)

OSHA PEL: Short-term value: 435 mg/m³, 100 ml/m³

100-41-4 ethylbenzene

ACGIH TLV: Short-term value: 434 mg/m³, 100 ml/m³Long-term value: 543 mg/m³, 125 ml/m³

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(q)

NIOSH REL: Short-term value: 435 mg/m³, 100 ml/m³Long-term value: 545 mg/m³, 125 ml/m³OSHA PEL: Short-term value: 435 mg/m³, 100 ml/m³

maleic modified rosin ester

ACGIH TLV: 10* / 5** mg/m³

* - total dust / ** - respirable dust

OSHA PEL: 15* / 5** mg/m³

* - total dust / ** - respirable dust

108-88-3 toluene

ACGIH TLV: Short-term value: 188, A4 mg/m³, 50, A4 ml/m³

Skin; (q)

NIOSH REL: Short-term value: 375 mg/m³, 100 ml/m³Long-term value: 560 mg/m³, 150 ml/m³OSHA PEL: Short-term value: 200 ml/m³Long-term value: C 300; 500* ml/m³

*10-min peak per 8-hr sh

- **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.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

- **Breathing equipment:** Not required.

- **Protection of hands:** Protective gloves.

- **Eye protection:** Safety glasses

9 Physical and chemical properties:

- **Form:** Liquid

- **Color:** Green

- **Odor:** Like aromatic solvents

.

- **Change in condition**

- **Melting point/Melting range:**

undetermined

- **Boiling point/Boiling range:**

136 ° C

- **Flash point:**

19 ° C

- **Ignition temperature:**

430 ° C

- **Auto igniting:**

Product is not selfigniting.

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- **Danger of explosion:**
Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
- **Explosion limits:**
- **Lower:** 1.0 Vol %
- **Upper:** 7.8 Vol %
- **Vapor pressure:** at 20 ° C 9.5 hPa
- **Density:** Not determined
- **Solubility in / Miscibility with Water:** Not miscible or difficult to mix
- **Solvent content:**
- **Organic solvents:** 86.5 %
- **Solids content:** 13.5 %

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

11 Toxicological information

- **Acute toxicity:**
LD/Lc50 values that are relevant for classification:
1330-20-7 xylene (mix)
Oral: LD50: 8700 mg/kg (rat)
Dermal: LD50: 2000 mg/kg (rbt)
Inhalative: LC50/4 h: 6350 mg/l (rat)
- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** 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
Irritant

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12 Ecological information:

- **General notes:**

Water hazard class 2 (Self-assessment): hazardous for water.
Do not allow product to reach ground water, water course or sewage system.
Danger to drinking water if even small quantities leak into the ground.

13 Disposal considerations

- **Product:**

- **Recommendation**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
Comply with all Federal, State, and Local regulations regarding disposal.

- **Uncleaned packagings:**

- **Recommendation:**

Comply with all Federal, State, and Local regulations regarding disposal.

14 Transport information

- **DOT regulations:**

- **Hazard class:** 3
- **Identification number:** UN1210
- **Packing group:** III
- **Proper shipping name (technical name):**
Printing ink

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

- **ADR/RID class:** 3 Flammable liquids
- **Item:** 31c
- **Danger code (Kemler):** 30
- **UN-Number:** 1210
- **Description of goods:** 1210 Printing ink

- **Maritime transport IMDG:**

- **IMDG Class:** 3.3
- **Page:** 3353-1
- **UN Number:** 1210
- **Packaging group:** III
- **EMS Number:** 3-05
- **MFAG:** 311
- **Marine pollutant:** No
- **Proper shipping name:** Printing ink

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- **Air transport ICAO-TI and IATA-DGR:**
- **ICAO/IATA Class:** 3
- **UN/ID Number:** 1210
- **Packaging group:** III
- **Proper shipping name:** Printing ink

15 Regulations

- **Product related hazard information:**
The product has been classified and marked in accordance with directives on hazardous materials.
- **Hazard symbols:**
Harmful
Highly flammable
- **Hazard-determining components of labelling:** xylene (mix)
- **Risk phrases:**
Highly flammable.
Harmful by inhalation and in contact with skin.
Irritating to skin.
- **Safety phrases:**
Keep out of the reach of children.
Keep container in a well-ventilated place.
Wear suitable protective clothing and gloves.
If swallowed, seek medical advice immediately and show this container or label.
- **National regulations**
- **Water hazard class:**
Water hazard class 2 (Self-assessment): hazardous for water.
- **Other regulations, limitations and prohibitive regulations**
- **OSHA Regulations**
Air Contaminant (29 CFR 1910.1000, Table Z-1, Z-1-A): Not listed
OSHA Specifically Regulated Substance (29 CFR 1910.): Not listed
- **Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III, Section 313:**
1330-20-7 xylene (mix)
100-41-4 ethylbenzene
108-88-3 toluene
copper (Cu²⁺) containing dye
- **CONEG:**
This product has not been tested for heavy metals covered under the various CONEG laws. However, raw materials used to make this product do

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not contain mercury, lead, cadmium, or hexavalent chromium and none are added during manufacture.

• Toxic Substances Control Act TSCA Status:

All components of this product are listed in the EPA's Inventory of Chemical Substances as required under the Toxic Substances Control Act (TSCA).

California Proposition 65 (Chemicals known to cause cancer):

71-43-2 benzene

• California Proposition 65 (Chemicals known to cause reproductive toxicity):

108-88-3 toluene

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.

- **File:** 267

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