

# Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 03/20/2009

Reviewed on 03/20/2009

## 1 Identification of substance

- **Product details**
- **Trade name:** FX-YP Yellow Pigment Ink
- **Article number:** M88FX-YP; 2ZU37
- **Application of the substance / the preparation** Printing inks
- **Manufacturer/Supplier:**  
Marsh Shipping Supply Co.,LLC  
926 McDonough Lake Road - Unit E  
Collinsville, IL 62234  
USA
- **Information department:** MSDS DEPT.
- **Emergency information:**  
Chemtrec 800-424-9300  
International 703-527-3887

## 2 Composition/Data on components

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

### · Hazardous components

|             |  |        |
|-------------|--|--------|
| 71-23-8     | propan-1-ol<br>☒ Xi, ☒ F; R 11-41-67<br>Danger: ☒ 2.6/2; ☒ 3.3/1<br>Warning: ☒ 3.8/3 | 38.13% |
| 5567-15-7   | Yellow Pigment   | 1.15%  |
| 112945-52-5 | Amorphous Fumed Silica, Silicon Dioxide, Crystalline Free                            | 0.12%  |

- **Additional information:**  
For the wording of the listed risk phrases refer to section 16.  
This product contains pigments which may become a dust nuisance when removed by abrasive blasting or sanding. Airborne nuisance particulates have an ACGIH TLV for total dust of 10mg/M3

## 3 Hazards identification

- **Hazard description:**  
Read MSDS before using  
WARNING! FLAMMABLE LIQUID. HARMFUL. Keep liquid and vapors away from ignition sources, heat, and static discharge. Avoid contact with eyes and skin. Avoid inhalation of mist or vapor.
- **Information pertaining to particular dangers for man and environment:**  
The product has to be labelled due to the calculation procedure of international guidelines.  
Has a narcotizing effect.  
R 10 Flammable.  
R 67 Vapours may cause drowsiness and dizziness.
- **Inhalation**  
Can cause nasal and respiratory tract irritation. Can cause Central Nervous System effects including fatigue, dizziness, nausea, vomiting, unconsciousness, respiratory failure, headache, possible hearing impairment.
- **Potential Chronic Health Effects**  
Prolonged or repeated exposure of vapors, spray, or material may cause diseases of the lungs. Reports have associated repeated overexposure to solvents with brain and nervous system damage. Intentional misuse of this product may be harmful or fatal.
- **Target Organs**  
Overexposure to this material or its components has been suggested as a cause of the following effects in laboratory animals and/or humans, and may aggravate preexisting disorders of these organs in humans:

(Contd. on page 2)

# Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 03/20/2009

Reviewed on 03/20/2009

Trade name: **FX-YP Yellow Pigment Ink**

(Contd. of page 1)

Anemia, Blood disorders, Brain damage, Cardiac function, eye, liver, lung, menstrual and fertility, skin, respiratory, Central Nervous System

· **Classification system:**

The classification was made according to the latest editions of international substances lists and from component data and msds information

· **NFPA ratings (scale 0 - 4)**



· **HMIS-ratings (scale 0 - 4)**



· **GHS label elements**



3.3/1 - Causes serious eye damage.



2.6/3 - Flammable liquid and vapour.



3.8/3 - May cause drowsiness or dizziness.

· **Prevention:**

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Keep container tightly closed.

Ground/bond container and receiving equipment.

Use explosion-proof electrical/ventilating/lighting/ equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

Avoid breathing dust/fume/gas/mist/vapours/spray.

Use only outdoors or in a well-ventilated area.

Wear protective gloves/protective clothing/eye protection/face protection.

· **Response:**

**IF ON SKIN (or hair):** Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

**IF INHALED:** Remove to fresh air and keep at rest in a position comfortable for breathing.

**IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

Immediately call a POISON CENTER or doctor/physician.

Call a POISON CENTER or doctor/physician if you feel unwell.

In case of fire: Use for extinction: CO<sub>2</sub>, powder or water spray.

· **Storage:**

Store in a well-ventilated place. Keep container tightly closed.

Store in a well-ventilated place. Keep cool.

Store locked up.

(Contd. on page 3)

USA

# Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 03/20/2009

Reviewed on 03/20/2009

**Trade name: FX-YP Yellow Pigment Ink**

(Contd. of page 2)

- **Disposal:**  
Dispose of contents/container in accordance with local/regional/national/international regulations.

## 4 First aid measures

- **General information:**  
Take affected persons out into the fresh air.  
Involve doctor immediately.
- **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 fifteen minutes under running water. If irritation persists, consult a doctor.
- **After swallowing:** Do not induce vomiting; immediately call for medical help.
- **Information for doctor:**
- **The following symptoms may occur:**  
Breathing difficulty  
Headache  
Dizziness  
Thirst  
Cramp  
Gastric or intestinal disorders  
Coughing  
Allergic reactions  
Nausea

## 5 Fire fighting measures

- **Suitable extinguishing agents:**  
CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.  
CO<sub>2</sub>, sand, extinguishing powder. Do not use water.  
ABC powder
- **For safety reasons unsuitable extinguishing agents:** Water
- **Special hazards caused by the material, its products of combustion or resulting gases:**  
Nitrogen oxides (NO<sub>x</sub>)  
Carbon monoxide (CO)
- **Protective equipment:**  
Wear self-contained respiratory protective device.  
Wear fully protective suit.
- **Additional information**  
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.  
Collect contaminated fire fighting water separately. It must not enter the sewage system.

## 6 Accidental release measures

- **Person-related safety precautions:**  
Wear protective equipment. Keep unprotected persons away.  
Ensure adequate ventilation  
Particular danger of slipping on leaked/spilled product.  
Keep away from ignition sources  
Wear protective clothing.

(Contd. on page 4)

USA

# Material Safety Data Sheet

## acc. to ISO/DIS 11014

Printing date 03/20/2009

Reviewed on 03/20/2009

**Trade name: FX-YP Yellow Pigment Ink**

(Contd. of page 3)

· **Measures for environmental protection:**

*Do not allow product to reach sewage system or any water course.*

*Do not allow to enter sewers/ surface or ground water.*

*Prevent from spreading (e.g. by damming-in or oil barriers).*

· **Measures for cleaning/collecting:**

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

*Do not flush with water or aqueous cleansing agents*

*Dispose of the collected material according to regulations.*

· **Additional information:**

*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:**

· **Information for safe handling:**

*Store in cool, dry place in tightly closed receptacles.*

*Keep away from heat and direct sunlight.*

*Handle with care. Avoid jolting, friction and impact.*

*Use solvent-proof equipment.*

*Hydrocarbon solvents are basically non-conductors of electricity and can become electrostatically charged during mixing or moving, observe grounding/grounding of containers and other equipment when handling.*

· **Information about protection against explosions and fires:**

*Keep ignition sources away - Do not smoke.*

*Protect from heat.*

*Protect against electrostatic charges.*

*Prevent impact and friction.*

*Use explosion-proof apparatus / fittings and spark-proof tools.*

*Fumes can combine with air to form an explosive mixture.*

*Flammable gas-air mixtures may be formed in empty receptacles.*

· **Storage:**

· **Requirements to be met by storerooms and receptacles:**

*Store only in the original receptacle.*

*Prevent any seepage into the ground.*

· **Information about storage in one common storage facility:**

*Do not store together with reducing agents, heavy-metal compounds, acids and alkalis.*

*Do not store together with oxidizing and acidic materials as well as heavy-metal compounds.*

*Store away from foodstuffs.*

· **Further information about storage conditions:**

*Keep receptacle tightly sealed.*

*Protect from heat and direct sunlight.*

*Protect from humidity and water.*

*Protect from exposure to the light.*

USA

(Contd. on page 5)

# Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 03/20/2009

Reviewed on 03/20/2009

Trade name: **FX-YP Yellow Pigment Ink**

(Contd. of page 4)

## 8 Exposure controls and personal protection

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

### 71-23-8 propan-1-ol

|     |   |
|-----|---|
| PEL | 500 mg/m <sup>3</sup> , 200 ppm   |
| REL | Short-term value: 625 mg/m <sup>3</sup> , 250 ppm<br>Long-term value: 500 mg/m <sup>3</sup> , 200 ppm |
|     | Skin  |
| TLV | Short-term value: 984 mg/m <sup>3</sup> , 400 ppm<br>Long-term value: 492 mg/m <sup>3</sup> , 200 ppm |

### 5567-15-7 Yellow Pigment

|     |                                     |
|-----|-------------------------------------|
| TLV | 10 mg/m <sup>3</sup><br>as nuisance |
|-----|-------------------------------------|

### 112945-52-5 Amorphous Fumed Silica, Silicon Dioxide, Crystalline Free

|     |                       |
|-----|-----------------------|
| TLV | 3.5 mg/m <sup>3</sup> |
|-----|-----------------------|

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

· **Personal protective equipment:**

· **General protective and hygienic measures:**

The usual precautionary measures for handling chemicals should be followed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Do not inhale gases / fumes / aerosols.

Avoid contact with the skin.

Avoid contact with the eyes and skin.

Pregnant women should strictly avoid inhalation or skin contact.

Do not eat, drink, smoke or sniff while working.

· **Breathing equipment:**

Use suitable respiratory protective device in case of insufficient ventilation.

Do not breath vapors, spray mists, or sanding dusts. Use air purifying respirators fitted with organic vapor/HEPA cartridges only if air monitoring demonstrates solvent/particulate levels do not exceed the respirator maximum use concentration. Use properly fitted NIOSH approved respirators. Local and general exhaust should minimize any exposure.

· **Protection of hands:** Not required.

· **Material of gloves**

Nitrile rubber, NBR

Nitrile or natural rubber gloves are typically used to protect from minor contact. Butyl type are best for prolonged contact.

· **Eye protection:**



Vapor proof safety goggles or full face respirator

· **Body protection:**

Tyvek(R) coveralls to protect from light overspray protection or Saranex 23-P(R) for moderate exposure.

USA

(Contd. on page 6)

# Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 03/20/2009

Reviewed on 03/20/2009

Trade name: FX-YP Yellow Pigment Ink

(Contd. of page 5)

## 9 Physical and chemical properties

### · General Information

|               |              |
|---------------|--------------|
| <b>Form:</b>  | Fluid        |
| <b>Color:</b> | Yellow       |
| <b>Odor:</b>  | Alcohol-like |

### · Change in condition

**Melting point/Melting range:** Undetermined.

**Boiling point/Boiling range:** 96°C (205°F)

· **Flash point:** 23°C (73°F)

· **Ignition temperature:** 360°C (680°F)

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

· **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapor mixtures are possible.  
In use, may form flammable/explosive vapour-air mixture.

### · Explosion limits:

**Lower:** 2.1 Vol %

**Upper:** 13.5 Vol %

· **Vapor pressure at 20°C (68°F):** 19 hPa (14 mm Hg)

· **Density at 20°C (68°F):** 1.25 g/cm<sup>3</sup>

### · Solubility in / Miscibility with

**Water:** Not miscible or difficult to mix.

### · Solvent content:

**Organic solvents:** 38.1 %

**VOC content:** 38.1 %  
476.2 g/l / 3.97 lb/gal

· **Solids content:** 59.7 %

## 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:

Nitrogen oxides

Carbon monoxide and carbon dioxide

## 11 Toxicological information

· **Acute toxicity:**

· **Primary irritant effect:**

· **on the skin:** No irritant effect.

· **on the eye:** No irritating effect.

· **Sensitization:** No sensitizing effects known.

USA

(Contd. on page 7)

# Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 03/20/2009

Reviewed on 03/20/2009

Trade name: FX-YP Yellow Pigment Ink

(Contd. of page 6)

## 12 Ecological information

- **General notes:**

Water hazard class 1 (Self-assessment): slightly hazardous for water  
This statement was deduced from the properties of the single components.

## 13 Disposal considerations

- **Product:**

- **Recommendation:**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.  
Hand over to hazardous waste disposers.

- **Uncleaned packagings:**

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

## 14 Transport information

- **DOT regulations:**



- **Hazard class:**

3  
D.O.T. - Ground only  
ORM-D material  
Ink, not regulated by Title 49 Part 173.150 Exceptions for class 3 (flammable) liquids (c).

- **Identification number:**

UN1210

- **Packing group:**

III

- **Proper shipping name (technical name):** PRINTING INK, mixture

- **Label**

3

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



- **ADR/RID class:**

3 Flammable liquids

- **Danger code (Kemler):**

30

- **UN-Number:**

1210

- **Packaging group:**

III

- **Description of goods:**

PRINTING INKS

- **Maritime transport IMDG:**



- **IMDG Class:**

3

- **UN Number:**

1210

(Contd. on page 8)

# Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 03/20/2009

Reviewed on 03/20/2009

Trade name: FX-YP Yellow Pigment Ink

(Contd. of page 7)

- **Label** 3
- **Packaging group:** III
- **EMS Number:** F-E,S-D
- **Propper shipping name:** PRINTING INK, mixture

· **Air transport ICAO-TI and IATA-DGR:**

- **ICAO/IATA Class:** 3
- **UN/ID Number:** 1210
- **Label** 3
- **Packaging group:** III
- **Propper shipping name:** PRINTING INK, mixture

· **UN "Model Regulation":** UN1274, PROPANOL (PROPYL ALCOHOL, NORMAL), mixture, 3, III

## 15 Regulations

· **Sara**· **SARA Title III Section 311/312 - Hazard Communication Standard (40 CFR 370)**

|            |                  |         |
|------------|------------------|---------|
| 71-23-8    | propan-1-ol      | 38.13%  |
| 13463-67-7 | titanium dioxide | 31.761% |

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

All ingredients are listed or exempt.

|             |   |  |
|-------------|---|--|
| 71-23-8     | propan-1-ol   |  |
| 13463-67-7  | titanium dioxide  |  |
| 7631-86-9   | silicon dioxide, chemically prepared                      |  |
| 21645-51-2  | aluminium hydroxide                                       |  |
| 5567-15-7   | Yellow Pigment  |  |
| 112945-52-5 | Amorphous Fumed Silica, Silicon Dioxide, Crystalline Free |  |

· **ACGIH Carcinogen**

|            |                  |    |         |
|------------|------------------|----|---------|
| 13463-67-7 | titanium dioxide | A4 | 31.761% |
|------------|------------------|----|---------|

· **Cancerogenity categories**· **IARC (International Agency for Research on Cancer)**

|            |                                      |    |         |
|------------|--------------------------------------|----|---------|
| 13463-67-7 | titanium dioxide                     | 2B | 31.761% |
| 7631-86-9  | silicon dioxide, chemically prepared | 3  | 2.117%  |

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

· **TLV (Threshold Limit Value established by ACGIH)**

|            |                  |    |         |
|------------|------------------|----|---------|
| 71-23-8    | propan-1-ol      | A4 | 38.13%  |
| 13463-67-7 | titanium dioxide | A4 | 31.761% |

· **NIOSH (National Institute for Occupational Safety and Health)**

|            |                  |   |         |
|------------|------------------|---|---------|
| 13463-67-7 | titanium dioxide | * | 31.761% |
|------------|------------------|---|---------|

(Contd. on page 9)



# Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 03/20/2009

Reviewed on 03/20/2009

**Trade name: FX-YP Yellow Pigment Ink**

(Contd. of page 8)

· **State regulations**

· **Massachusetts Right-to-know / Hazardous Substance Codes**

|            |                                      |          |         |
|------------|--------------------------------------|----------|---------|
| 13463-67-7 | titanium dioxide                     | 4        | 31.761% |
| 7631-86-9  | silicon dioxide, chemically prepared | 2,4,5 F5 | 2.117%  |

· **Florida Hazardous / Toxic Substance Lists**

|           |                                      |       |        |
|-----------|--------------------------------------|-------|--------|
| 7631-86-9 | silicon dioxide, chemically prepared | Toxic | 2.117% |
|-----------|--------------------------------------|-------|--------|

· **Pennsylvania Hazardous Substances**

|            |                                      |        |         |
|------------|--------------------------------------|--------|---------|
| 13463-67-7 | titanium dioxide                     | Listed | 31.761% |
| 7631-86-9  | silicon dioxide, chemically prepared | Listed | 2.117%  |

· **Minnesota Right To Know / Hazardous Substances**

|            |                                      |                        |         |
|------------|--------------------------------------|------------------------|---------|
| 13463-67-7 | titanium dioxide                     | A                      | 31.761% |
| 7631-86-9  | silicon dioxide, chemically prepared | Codes ANOR, Carcinogen | 2.117%  |

· **Illinois Right To Know**

None of the ingredients is listed.

· **Product related hazard informations:**

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

· **Risk phrases:**

10 Flammable.

67 Vapours may cause drowsiness and dizziness.

· **Safety phrases:**

7 Keep container tightly closed.

16 Keep away from sources of ignition - No smoking.

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.

43 In case of fire, use sand, carbon dioxide or powdered extinguishing agent. Never use water.

51 Use only in well-ventilated areas.

60 This material and its container must be disposed of as hazardous waste.

· **National regulations:**

· **Occupational Safety and Health Act (OSHA)**

Immediate (acute) health hazard

Delayed (chronic) Health Hazard

Fire Hazard

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

## 16 Other information

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

· **Relevant R-phrases**

11 Highly flammable.

41 Risk of serious damage to eyes.

67 Vapours may cause drowsiness and dizziness.

· **Contact:** Mike Rickert

(Contd. on page 10)

# Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 03/20/2009

Reviewed on 03/20/2009

**Trade name: FX-YP Yellow Pigment Ink**

(Contd. of page 9)

**· Abbreviations and acronyms:**

*ADR: Accord européen sur le transport des marchandises Dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)*

*RID: Reglement internationale concernent le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)*

*IMDG: International Maritime Code for Dangerous Goods*

*DOT: US Department of Transportation*

*IATA: International Air Transport Association*

*IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)*

*ICAO: International Civil Aviation Organization*

*ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)*

*GHS: Globally Harmonized System of Classification and Labelling of Chemicals*

*ACGIH: American Conference of Governmental Industrial Hygienists*

*NFPA: National Fire Protection Association (USA)*

*HMIS: Hazardous Materials Identification System (USA)*

*VOC: Volatile Organic Compounds (USA, EU)*

USA