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## 1. PRODUCT AND COMPANY IDENTIFICATION

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Product Name: 8103 RED INK  
Product Number: 201-8123  
REACH Registration Number: N/A  
Identified Use: Marking ink for semiconductor  
Uses Advised Against: None identified  
Manufacturer: Xandex, Inc.  
1360 Redwood Way, Suite A  
Petaluma, CA 94954 USA  
  
Web Site: [www.xandex.com](http://www.xandex.com)  
E-Mail: [beastin@xandex.com](mailto:beastin@xandex.com)  
Information Contact: Bill Eastin  
Emergency Telephone: (800) 535-5053 (US Domestic)  
(352) 323-3500 (International)

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## 2. HAZARDS IDENTIFICATION

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### Emergency Overview

#### OSHA Hazards

Target Organ Effect, Irritant, Harmful by ingestion, Harmful by skin absorption

#### Target Organs

Central nervous system

#### GHS Classification

Acute toxicity, Oral (Category 4)  
Acute toxicity, Inhalation (Category 4)  
Acute toxicity, Dermal (Category 4)  
Skin irritation (Category 2)  
Acute aquatic toxicity (Category 2)

#### GHS Label elements, including precautionary statements

Pictogram



Signal Word

Warning

Hazard statements

H302 + H312

Harmful if swallowed or in contact with skin

H315

Causes skin irritation

H332

Harmful if inhaled

H401

Toxic to aquatic life



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Replaces: Version 3.3 Dated 11/04/16

Precautionary statements  
P280

Wear protective gloves

## NFPA Rating

Health hazard	2
Fire	1
Reactivity hazard	1

## HMIS Classification

Health hazard	2
Flammability	1
Physical hazard	1

## Potential Health Effects

Eyes: Causes eye irritation.  
Skin: Harmful if absorbed through skin. Causes skin irritation.  
Inhalation: May be harmful if inhaled. Causes respiratory tract irritation.  
Ingestion: Harmful if swallowed.

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### 3. COMPOSITION/INFORMATION ON INGREDIENTS

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#### Description

Phenoxy resin and dye based ink mixture.

#### Hazardous Ingredients

Chemical name	EC-No	Index-No	CAS-No	Amount (%)	Classification according to Regulation (EC) No 1272/2008 (CLP)	Classification according to 67/548/EEC
Benzyl Alcohol	202-859-9	603-057-00-5	100-51-6	60-90	H302 + 312, H315, H332, H401, P280	R20/22, Xn
Solvent Red 229				1-10	H316, H320, P280	

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### 4. FIRST AID MEASURES

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#### In case of eye contact:

Flush eyes with water as a precaution.

#### In case of skin contact:

Wash with soap and plenty of water.

#### In case of inhalation:

If breathed in, remove person into fresh air.



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**In case of ingestion:**

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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## 5. FIRE FIGHTING MEASURES

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**Suitable extinguishing media:**

Use water spray, dry chemical, CO<sub>2</sub>, alcohol-resistant foam.

**Hazardous combustion products:**

Emits carbon oxides under fire conditions.

**Special protective equipment for fire fighters:**

Wear self-contained breathing apparatus if necessary.

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## 6. ACCIDENTAL RELEASE MEASURES

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**Personal precautions:**

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation.

**Environmental precautions:**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

**Methods for cleaning up:**

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable closed containers for disposal.

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## 7. HANDLING AND STORAGE

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**Precautions for safe handling:**

Avoid contact with skin and eyes. Avoid inhalation of vapor or mist.

**Conditions for storage:**

Store at a temperature of 10-25°C (50-77° F) to maintain maximum shelf life.



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## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Limit value type (country of origin)	Substance name	EC-No	CAS-No	Occupational exposure limit value	Source
TWA (USA)	Benzyl alcohol	202-859-9	100-51-6	10 ppm	Workplace Environmental Exposure Levels (WEEL)
TWA (USA)	Solvent Red 229			10 mg/m <sup>3</sup> TWA Total dust 5 mg/m <sup>3</sup> Respirable	ACGIH Threshold Limit Values (TLV)

### Personal protective equipment

#### Eye protection

Safety goggles

#### Respiratory protection

For continuous exposure to large quantities, wear respirator (CEN/NIOSH approved) as required for concentrations of air contaminants encountered.

#### Skin protection

Chemical resistant gloves. Avoid repeated or prolonged skin exposure.

#### Hygiene measures

Wash hands thoroughly after handling.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical State:</b>	Opaque liquid
<b>Color:</b>	Red
<b>Odor:</b>	Slight alcoholic odor
<b>Flash Point:</b>	96° C
<b>Specific Gravity:</b>	1.081 (Water = 1)
<b>% Volatile/Non-Volatile (Solids):</b>	84% Volatile / 16% Non-Volatile

## 10. STABILITY AND REACTIVITY

<b>Chemical Stability:</b>	Stable under recommended storage conditions
<b>Conditions to Avoid:</b>	A mixture of benzyl alcohol and 58% sulfuric acid decomposed violently when heated to 180° C. Benzyl alcohol containing 1.4% hydrogen bromide and 1.1% of an iron(II) salt polymerized exothermally when heated above 100° C.
<b>Hazardous Decomposition Products:</b>	Carbon oxides
<b>Materials to Avoid:</b>	Strong oxidizing agents



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## 11. TOXICOLOGICAL INFORMATION

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### Acute toxicity

#### Benzyl alcohol

##### Oral LD50

LD50 Oral-rat-1,230 mg/kg

##### Inhalation LC50

No data available

##### Dermal LD50

LD50 Dermal-rabbit-2,000 mg/kg

#### Solvent Red 229

##### Oral LD50

LD50 Oral-rat->3,000 mg/kg

### Skin corrosion/irritation

#### Benzyl alcohol

Skin-rabbit-irritating to skin-24h

#### Solvent Red 229

No data available

### Serious eye damage / eye irritation

#### Benzyl alcohol

No data available

#### Solvent Red 229

No data available

### Respiratory or skin sensitization

No data available

### Germ cell mutagenicity

No data available

### Carcinogenicity

IARC: No component of this product at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by ACGIH.



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**NTP:** No component of this product at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by NTP.

**OSHA:** No component of this product at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by OSHA

## Reproductive toxicity

No data available

## Teratogenicity

No data available

## Specific target organ toxicity- single exposure (Globally Harmonized System)

No data available

## Specific target organ toxicity- repeated exposure (Globally Harmonized System)

No data available

## Aspiration hazard

No data available

## Potential health effects

### Ingestion

Harmful if swallowed.

### Inhalation

May be harmful if inhaled. Causes respiratory tract irritation.

### Skin

Harmful if absorbed through skin. Causes skin irritation.

### Eyes

Causes eye irritation.

## Signs and Symptoms of Exposure

Central nervous system depression.

## Synergistic effects

No data available

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## 12. ECOLOGICAL INFORMATION

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### Toxicity

#### Benzyl alcohol

Toxicity to fish

LC50- Lepomis macrochirus (Bluegill)- 10 mg /l – 96 h

Toxicity to daphnia  
and other aquatic  
invertebrates

EC50- Daphnia magna (Water Flea)- 55 mg /l – 24 h



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## Persistence and degradability

### Benzyl alcohol

Biodegradability

Biotic/Aerobic

Result: 92-96% - Readily biodegradable

## Bioaccumulative potential

No data available

## Mobility in soil

No data available

## PBT and vPvB assessment

No data available

## Other adverse effects

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.  
Toxic to aquatic life.

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## 13. DISPOSAL CONSIDERATIONS

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Contact a professional waste disposal service to dispose of this material. Observe all federal, state, and local environmental regulations in the jurisdiction where the product is used.

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## 14. TRANSPORT INFORMATION

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### DOT (US)

UN Number: N/A

Marine pollutant: No

Poison inhalation hazard: No

Not dangerous goods

### IATA

UN Number: N/A

Not dangerous goods

### IMDG

Not dangerous goods.

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## 15. REGULATORY INFORMATION

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### OSHA Hazards

Target Organ Effect, Harmful by ingestion, Harmful by skin absorption, Irritant

### CERCLA Status:

Not listed



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## TSCA Status:

All chemicals used in this product are TSCA listed.

## SARA 302:

This product contains no chemicals subject to the notification under SARA Title III, Section 302.

## SARA 311/312 Hazards

Acute health hazard, chronic health hazard.

## SARA 313:

This product contains no chemicals subject to the notification under SARA Title III, Section 313.

## Massachusetts Right To Know Components

	CAS No.	Revision Date
Benzyl Alcohol	100-51-6	1993-04-24

## Pennsylvania Right To Know Components

	CAS No.	Revision Date
Benzyl Alcohol	100-51-6	1993-04-24

## New Jersey Right To Know Components

	CAS No.	Revision Date
Benzyl Alcohol	100-51-6	1993-04-24

## German Regulations

Water-endangering substances (WGK [water hazard class]): 1

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## 16. OTHER INFORMATION

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The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Xandex Incorporated shall not be held liable for any damage resulting from handling or from contact with the above product.

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