
1. PRODUCT AND COMPANY IDENTIFICATION

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
E-Mail: beastin@xandex.com
Information Contact: Bill Eastin
Emergency Telephone: (800) 535-5053 (US Domestic)
+1-352-323-3500 (International)

2. HAZARDS IDENTIFICATION

Emergency Overview

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Acute toxicity, Oral (Category 4) H302
Acute toxicity, Inhalation (Category 4) H332
Eye irritation (Category 2A) H319
Acute aquatic toxicity (Category 2) H401

GHS Label elements, including precautionary statements

Pictogram



Signal Word

Warning

Hazard statements

H302 + H332 Harmful if swallowed or inhaled
H315 Causes skin irritation
H319 Causes serious eye irritation
H401 Toxic to aquatic life

Precautionary statements

P261 Avoid breathing fume/gas/mist/vapors/spray
P280 Wear protective gloves
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.

NFPA Rating

Health hazard 2
Fire 1
Reactivity hazard 1



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HMIS Classification

Health hazard	2
Flammability	1
Physical hazard	1

Potential Health Effects

Eyes:	This product can cause serious irritation to eyes on contact.
Skin:	This product can cause moderate irritation to skin on contact.
Inhalation:	Vapor or mist can cause irritation to the nose and throat.
Ingestion:	Harmful if swallowed.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Description

Phenoxy resin and dye based ink mixture.

Hazardous Ingredients

Chemical name	EC-No	Index-No	CAS-No	Amount (%)	Classification
Benzyl Alcohol	202-859-9	603-057-00-5	100-51-6	60-90	Acute Tox. 4; Eye Irrit. 2A; Aquatic Acute 2; H302, H319, H401
Solvent Red 229				1-10	H316, H320, P280

4. FIRST AID MEASURES

In case of eye contact:

Rinse thoroughly with water for at least 15 minutes. Consult a physician, if required.

In case of skin contact:

Wash with soap and plenty of water.

In case of inhalation:

Remove person to fresh air.

In case of ingestion:

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

5. FIRE FIGHTING MEASURES

Conditions of flammability:

Flammable in the presence of a source of ignition when the temperature is above the flash point.



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Suitable extinguishing media:

Use water spray, dry chemical, CO₂, 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.

6. ACCIDENTAL RELEASE MEASURES

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.

7. HANDLING AND STORAGE

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.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Components with workplace control parameters

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 ³ TWA Total dust 5 mg/m ³ Respirable	ACGIH Threshold Limit Values (TLV)

Individual protection measures

Eye protection

Safety goggles



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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

Appearance

Form Opaque liquid

Color Red

Safety Data

pH No data available

Melting point/freezing point No data available

Boiling point No data available

Odor Slight alcoholic odor

Odor threshold No data available

Flash point 96° C

Ignition temperature No data available

Auto-ignition temperature No data available

Lower explosion limit No data available

Upper explosion limit No data available

Vapor pressure No data available

Water solubility No data available

Specific gravity 1.081 (Water = 1)

% Volatile/Non-Volatile (Solids) 84% Volatile / 16% Non-Volatile

Partition coefficient No data available

Relative vapor density No data available

Evaporation rate No data available

10. STABILITY AND REACTIVITY

Chemical Stability: Stable under recommended storage conditions

Conditions to Avoid: Heat and flame

Hazardous Decomposition Products: Carbon oxides

Materials to Avoid: Strong oxidizing agents



11. TOXICOLOGICAL INFORMATION

Acute toxicity

Benzyl alcohol

Oral LD50

LD50 Oral-rat-male 1,620 mg/kg (ECHA)

Solvent Red 229

Oral LD50

LD50 Oral-rat >3,000 mg/kg

Skin corrosion/irritation

Benzyl alcohol

Skin-rabbit

Result: No skin irritation – 4 h

(OECD Test Guideline 404)

Solvent Red 229

No data available

Serious eye damage / eye irritation

Benzyl alcohol

Eyes – Rabbit

Result: irritating

(OECD Test Guideline 405)

Solvent Red 229

No data available

Respiratory or skin sensitization

Benzyl alcohol

Maximization Test

Result: negative

(OECD Test Guideline 406)

Solvent Red 229

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.



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- 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.
- 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

Synergistic effects

No data available

Potential health effects

- | | |
|-------------------|-----------------------------------------------------------------|
| Ingestion | Harmful if swallowed. |
| Inhalation | May be harmful if inhaled. Causes respiratory tract irritation. |
| Skin | Causes skin irritation. |
| Eyes | Causes eye irritation. |

Signs and Symptoms of Exposure

Central nervous system depression.

12. ECOLOGICAL INFORMATION

Toxicity

Benzyl alcohol

- | | |
|-----------------------------------------------------|---------------------------------------------------------------------------------------------------------------|
| Toxicity to fish | Static test LC50- Pimephales promelas (Fathead minnow)- 460 mg /l – 96 h (US-EPA) |
| Toxicity to daphnia and other aquatic invertebrates | Immobilization EC50- Daphnia magna (Water flea)- 230 mg /l – 48 h (OECD Test Guideline 202) |
| Toxicity to algae | Static test ErC50 - Pseudokirchneriella subcapitata (green algae) – 700 mg/l – 72 h (OECD Test Guideline 201) |



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Persistence and degradability

Benzyl alcohol

Biodegradability	aerobic - Exposure time 14 d Result: 92-96% - Readily biodegradable (OECD Test Guideline 301C) aerobic - Exposure time 21 d Result: 95 - 97 % - Readily biodegradable
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Biochemical Oxygen Demand (BOD)	1,550 mg/g
Theoretical oxygen Demand (IUCLID)	2,515 mg/g
Ratio BOD/ThBOD	62 %

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.

13. DISPOSAL CONSIDERATIONS

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.

14. TRANSPORT INFORMATION

DOT (US)

UN Number:	N/A
Poison inhalation hazard:	No
Not dangerous goods	

IATA

UN Number:	N/A
Not dangerous goods	

IMDG

Not dangerous goods.

15. REGULATORY INFORMATION

OSHA Hazards

Target Organ Effect, Harmful by ingestion or inhalation, Irritant



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CERCLA Status:

Not listed

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.
Benzyl Alcohol	100-51-6

Pennsylvania Right To Know Components

	CAS No.
Benzyl Alcohol	100-51-6

New Jersey Right To Know Components

	CAS No.
Benzyl Alcohol	100-51-6

California Prop. 65 Components

This product does not contain any chemicals known to state of California to cancer, birth defects, or any other reproductive harm.

German Regulations

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



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16. OTHER INFORMATION

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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