
1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: 6990 BLACK INK
Product Number: 201-1651
REACH Registration Number: N/A
Identified Use: Marking ink for semiconductors
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)

Flammable Liquids (Category 4) H227
Acute Toxicity, Oral (Category 4) H302
Eye Irritation (Category 2A) H319

GHS Label elements, including precautionary statements

Pictogram



Signal Word

Warning

Hazard statements

H302	Harmful if swallowed
H316	Causes mild skin irritation
H319	Causes serious eye irritation
H227	Combustible liquid

Precautionary statements

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



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NFPA Rating

Health hazard	2
Fire	2
Reactivity hazard	0

HMIS Classification

Health hazard	2
Flammability	2
Physical hazard	0

Potential Health Effects

Eyes:	This product can cause serious irritation to eyes on contact.
Skin:	This product can cause mild irritation to skin.
Ingestion:	Harmful if swallowed.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Description

Phenolic resin and dye based ink mixture with a solvent blend.

Hazardous Ingredients

Chemical name	EC-No	Index-No	CAS-No	Amount (%)	Classification
Ethylene Glycol Monophenyl Ether	204-589-7	603-098-00-9	122-99-6	60-70	Acute Tox. 4; Eye Irrit. 2A; H302, H319
Diethylene Glycol Monophenyl Ether	203-227-5		104-68-7	5-10	Acute Tox. 4; Eye Damage 1; H302, H318
Nigrosine Dye	616-851-1		8005-02-5	1-5	Self-heat. 2; Combustible Dust- USH01; H252
Proprietary*	NA	NA	NA	15-34	NA

* Ingredient is a proprietary trade secret of Xandex Inc. and is a non-hazardous chemical compound.

4. FIRST AID MEASURES

In case of eye contact:

Thoroughly flush with water for at least 15 minutes. Consult a physician immediately.

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.

Suitable extinguishing media:

Use water spray, dry chemical, carbon dioxide, alcohol-resistant foam.

Hazardous combustion products:

Emits carbon and nitrogen oxides under fire conditions.

Special protective equipment for fire fighters:

Wear self-contained breathing apparatus if necessary.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions:

Wear protective clothing and gloves. Avoid breathing vapors, mist or gas. Ensure adequate ventilation.

Environmental precautions:

Do not let product enter drains.

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

Contains no substances with occupational exposure limit values.

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 Black

Safety Data

pH No data available

Melting point/freezing point No data available

Boiling point 242 °C

Odor Slight alcoholic odor

Odor threshold No data available

Flash point 121 °C

Ignition temperature No data available

Auto-ignition temperature 495 °C

Lower explosion limit 0.9%

Upper explosion limit No data available

Vapor pressure No data available

Water solubility Insoluble in water

Specific gravity 1.15 (Water = 1)

% Volatile/Non-Volatile (Solids) 75% Volatile / 25% 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 and nitrogen oxides

Materials to Avoid: Strong oxidizing agents

11. TOXICOLOGICAL INFORMATION

Acute toxicity**Ethylene Glycol Monophenyl Ether****Oral LD50**

LD50 Oral-rat 1,260 mg/kg (OECD Test Guideline 401)

Inhalation LC50

No data available

Dermal LD50

LD50 Dermal-rabbit 5 mL/kg

Diethylene Glycol Monophenyl Ether**Oral LD50**

LD50 Oral-rat 2,140 mg/kg

Inhalation LC50

No data available

Dermal LD50

LD50 Dermal-rabbit 2,120 µL/kg

Skin corrosion/irritation**Ethylene Glycol Monophenyl Ether**

Skin - Rabbit

Result: No skin irritation

(OECD Test Guideline 404)

Diethylene Glycol Monophenyl Ether

No data available

Serious eye damage / eye irritation**Ethylene Glycol Monophenyl Ether**

Eyes - Rabbit

Result: Irritating to eyes.

(OECD Test Guideline 405)

Diethylene Glycol Monophenyl Ether

No data available



Respiratory or skin sensitization

Ethylene Glycol Monophenyl Ether

Result: No skin irritation
(OECD Test Guideline 404)

Diethylene Glycol Monophenyl Ether

No data available

Germ cell mutagenicity

Ethylene Glycol Monophenyl Ether

Reverse Mutation Assay
S. typhimurium
Result: Negative

OECD Test Guideline 486

Rat – male

Result: Negative

Diethylene Glycol Monophenyl Ether

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.

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



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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.

Skin

Causes skin irritation.

Eyes

Causes eye irritation.

Signs and Symptoms of Exposure

Central nervous system depression. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness, blood disorders, dermatitis and blurred vision. The chemical, physical, and toxicological properties of this product have not been thoroughly investigated.

12. ECOLOGICAL INFORMATION

Toxicity

Ethylene Glycol Monophenyl Ether

Toxicity to fish flow-through test LC50 - Pimephales promelas (fathead minnow) - 344 mg/l - 96 h

Toxicity to daphnia static test EC50 - Daphnia magna (Water flea) - > 500 mg/l - 48 h
and other aquatic (OECD Test Guideline 202)
invertebrates

Toxicity to algae static test EC50 - Desmodesmus subspicatus (Scenedesmus subspicatus) - > 500 mg/l - 72 h

Diethylene Glycol Monophenyl Ether

Toxicity to fish No data available

Toxicity to daphnia No data available
and other aquatic No data available
invertebrates

Toxicity to algae No data available



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Persistence and degradability

Ethylene Glycol Monophenyl Ether

Biodegradability aerobic - Exposure time 28 d Result: 90 % - Readily biodegradable. (OECD Test Guideline 301F)

Diethylene Glycol Monophenyl Ether

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

PBT and vPvB assessment

No data available

Other adverse effects

No data available

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

Combustible Liquid, 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:

The following component is subject to reporting levels established in SARA Title III, Section 313.

	CAS No.
Ethylene Glycol Monophenyl Ether	122-99-6
Diethylene Glycol Monophenyl Ether	104-68-7

Massachusetts Right To Know Components

	CAS No.
Phenol	108-95-2
Formaldehyde	50-00-0

Pennsylvania Right To Know Components

	CAS No.
Ethylene Glycol Monophenyl Ether	122-99-6
Diethylene Glycol Monophenyl Ether	104-68-7
Phenol	108-95-2
Formaldehyde	50-00-0

New Jersey Right To Know Components

	CAS No.
Ethylene Glycol Monophenyl Ether	122-99-6
Diethylene Glycol Monophenyl Ether	104-68-7
Phenol	108-95-2
Formaldehyde	50-00-0

California Prop. 65 Components

	CAS No.
Aniline	62-53-3
Formaldehyde*	50-00-0

*Applies to wood products only



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German Regulations

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

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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