
1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: DIEMARK INK REMOVER 8000
Product Number: 204-8000, 204-8001
REACH Registration Number: N/A
Identified Use: Semiconductor Ink Removal
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)
(352) 323-3500 (International)

2. HAZARDS IDENTIFICATION

Emergency Overview

OSHA Hazards

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

Target Organs

Central nervous system, Blood, Liver, Kidney, Gastrointestinal tract, Cardiovascular system

GHS Classification

Flammable Liquids (Category 4)
Acute toxicity, Oral (Category 4)
Acute toxicity, Inhalation (Category 4)
Acute toxicity, Dermal (Category 4)
Skin irritation (Category 2)
Acute aquatic toxicity (Category 2)
Eye irritation (Category 2A)
Specific target organ toxicity- Single exposure (Category 3)

GHS Label elements, including precautionary statements

Pictogram



Signal Word

Warning



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Hazard statements

H227	Combustible liquid
H302 + H312	Harmful if swallowed or in contact with skin
H315	Causes skin irritation
H319	Causes serious eye irritation
H332	Harmful if inhaled
H401	Toxic to aquatic life
H336	May cause drowsiness

Precautionary statements

P261	Avoid breathing fume/gas/mist/vapors/spray
P280	Wear protective gloves/protective clothing
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	2
Reactivity hazard	0

HMIS Classification

Health hazard	2
Flammability	2
Physical hazard	0

Potential Health Effects

Eyes:	Causes eye irritation.
Skin:	Harmful if absorbed through the skin. Causes skin irritation.
Inhalation:	May be harmful if inhaled. Causes respiratory tract irritation. Vapors may cause drowsiness and dizziness.
Ingestion:	Harmful if swallowed.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Description

Alcohol Solvent 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	65-95	H302 + 312, H315, H332, H401, P280	R20/22, Xn
Isopropyl Alcohol	200-661-7	603-117-00-0	67-63-0	5-35	H225, H316, H319, H336	R11/36/67, Xi, F



4. FIRST AID MEASURES

General advice:

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

In case of eye contact:

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

In case of skin contact:

Wash with soap and water and plenty of water. Consult a physician.

In case of inhalation:

If breathed in, move person to fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of ingestion:

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. FIRE FIGHTING MEASURES

Conditions of flammability:

Combustible liquid. Flammable in the presence of a source of ignition if heated above the flashpoint.

Suitable extinguishing media:

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

Hazardous combustion products:

Emits carbon oxides under fire conditions.

Special protective equipment for fire fighters:

Wear self-contained breathing apparatus for fire fighting 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.



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Methods for containment and 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:

Keep container tightly closed in a dry, well ventilated place. Store at a temperature of 10-25°C (50-77° F) to maintain maximum shelf life.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Substance name	EC-No	CAS-No	Limit value type (country of origin)	Occupational exposure limit value	Source
Benzyl alcohol	202-859-9	100-51-6	TWA (USA)	10 ppm	Workplace Environmental Exposure Levels (WEEL)
Isopropyl alcohol	200-661-7	67-63-0	TWA (USA)	200 ppm	ACGIH Threshold Limit Values (TLV)
Eye and upper respiratory tract irritation. Central nervous system impairment. Not classifiable as a human carcinogen.					
Substance name	EC-No	CAS-No	Limit value type (country of origin)	Occupational exposure limit value	Source
Isopropyl alcohol	200-661-7	67-63-0	TWA (USA)	400 ppm 980 mg/m3	OSHA- Table Z-1 Limits for Air Contaminants- 1910.1000
			STEL (USA)	500 ppm 1,225 mg/m3	OSHA- Table Z-1 Limits for Air Contaminants- 1910.1000
			TWA (USA)	400 ppm 980 mg/m3	Occupational Exposure Limits (OSHA)- Table Z-1 Limits for Air Contaminants
The value in mg/m3 is approximate.					
			TWA (USA)	400 ppm 980 mg/m3	NIOSH Recommended Exposure Limits
			ST (USA)	500 ppm 1,225 mg/m3	NIOSH Recommended Exposure Limits



Personal Protective Equipment

Eye protection

Face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate, use a full face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a back-up to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

Hand Protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching gloves outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Immersion protection:

Material: Butyl-rubber

Minimum layer thickness: 0.3 mm

Break through time: >480 min.

Material tested: Butoject® (Aldrich Z677647, Size M)

Splash protection:

Material: Nitrile rubber

Minimum layer thickness: 0.4 mm

Break through time: >30 min.

Material tested: Camatrik® (Aldrich Z677442, Size M)

Skin and body protection

Complete suit protecting against chemicals. The type of equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands after breaks and at the end of the workday.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form:	Clear liquid
Color:	Colorless to light yellow
Odor:	Slight alcoholic odor



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Flash Point: 82° C (Method: Open cup)
Ignition Temperature: 434° C
Specific Gravity: 1.032 @ 25° C
% Volatile: 100% Volatile

10. STABILITY AND REACTIVITY

Chemical stability: Hygroscopic. Stable under recommended storage conditions

Possibility of hazardous reactions: No data available

Conditions to avoid: 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

Hazardous Decomposition Products: Carbon oxides form under fire conditions.

Materials to Avoid: Strong oxidizing agents

11. TOXICOLOGICAL INFORMATION

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

Isopropyl alcohol

Oral LD50

LD50 Oral-rat-5,045 mg/kg

Inhalation LC50

LC50 Inhalation-rat-8h-16,000 ppm

Dermal LD50

LD50 Dermal-rabbit-12,800 mg/kg

Skin corrosion/irritation

Benzyl alcohol

Skin-rabbit-irritating to skin-24h



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Isopropyl alcohol

Skin-rabbit-Mild skin irritation

Serious eye damage / eye irritation

Benzyl alcohol

No data available

Isopropyl alcohol

Eyes-rabbit-Eye irritation-24 h

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.

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



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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. Prolonged or repeated exposure can cause: Headache, dizziness, vomiting, fatigue.

Synergistic effects

No data available

12. ECOLOGICAL INFORMATION

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

Isopropyl alcohol

Toxicity to fish

LC50- *Pimephales promelas* (Fathead Minnow)- 9,640 mg /l – 96 h

Toxicity to daphnia
and other aquatic
invertebrates

EC50- *Daphnia magna* (Water Flea)- 5,102 mg /l – 24 h

Persistence and degradability

Benzyl alcohol

Biodegradability

Biotic/Aerobic

Result: 92-96% - Readily biodegradable

Isopropyl alcohol

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

PBT and vPvB assessment

No data available



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Other adverse effects

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

13. DISPOSAL CONSIDERATIONS

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

14. TRANSPORT INFORMATION

DOT (US)

UN Number: 1987 Alcohols n.o.s., Packing Class III
Marine pollutant: No
Poison inhalation hazard : No

IATA

UN Number: 1987 Alcohols n.o.s., Packing Class III

IMDG

Not dangerous goods.

15. REGULATORY INFORMATION

OSHA Hazards

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

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.	Revision Date
Isopropanol	67-63-0	1987-01-01



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Massachusetts Right To Know Components

	CAS No.	Revision Date
Isopropanol	67-63-0	1987-01-01

Pennsylvania Right To Know Components

	CAS No.	Revision Date
Isopropanol	67-63-0	1987-01-01

New Jersey Right To Know Components

	CAS No.	Revision Date
Isopropanol	67-63-0	1987-01-01

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

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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