



7824/7824T Black Ink

Safety Data Sheet

905-0005-01 Revision B

according to US HazCom 2012

Issue date: 25 July 2022 Revision date: 26 September 2022 Supersedes: 25 July 2022

SECTION 1: Identification

1.1. Identification

Product form : Mixtures
Trade name : 7824/7824T Black Ink
Product code : 201-1601/201-1611

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Marking ink for semiconductor industry

1.3. Supplier

Xandex Inc.
1360 Redwood Way, Suite A
Petaluma, CA 94954 USA

T: +1 707-763-7799
www.xandex.com
beastin@xandex.com

1.4. Emergency telephone number

Emergency number : (800) 535-5053 (US Domestic); +1-352-323-3500 (International)

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Flammable liquids Category 4	Combustible liquid
Serious eye damage/eye irritation Category 1	Causes serious eye damage
Reproductive toxicity Category 2	Suspected of damaging fertility or the unborn child
Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation	May cause respiratory irritation

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US) :

Danger

Hazard statements (GHS US) :

Combustible liquid
Causes serious eye damage
May cause respiratory irritation
Suspected of damaging fertility or the unborn child

Precautionary statements (GHS US) :

Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Avoid breathing mist, spray, vapors.
Use only outdoors or in a well-ventilated area.
Wear eye protection, protective gloves, protective clothing.
If inhaled: Remove person to fresh air and keep comfortable for breathing.
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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If exposed or concerned: Get medical advice/attention.
In case of fire: Use media other than water to extinguish.
Store in a well-ventilated place. Keep container tightly closed.
Keep cool.
Store locked up.
Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS US classification
2-Phenoxyethanol	CAS-No.: 122-99-6	40 – 60	Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318 STOT SE 3, H335
Diacetone alcohol	CAS-No.: 123-42-2	10 – 30	Flam. Liq. 3, H226 Eye Irrit. 2A, H319 Repr. 2, H361 STOT SE 3, H335

*Chemical name, CAS number and/or exact concentration have been withheld as a trade secret

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. Call a poison center or a doctor if you feel unwell.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.

First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.

First-aid measures after eye contact : Rinse thoroughly with plenty of water for at least 20 minutes and take medical advice. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if pain, blinking or redness persists. Call a physician immediately.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Call a poison center or a doctor if you feel unwell.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects : Suspected of damaging fertility or the unborn child.

Symptoms/effects after inhalation : May cause respiratory irritation.

Symptoms/effects after eye contact : Serious damage to eyes.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

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SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Sand.
Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Specific hazards arising from the chemical

Fire hazard : Combustible liquid. During a fire, carbon oxides (CO, CO₂) and nitrogen oxides combustion products may be formed.
Explosion hazard : Vapors may form explosive mixture with air. Vapors are heavier than air and may travel considerable distance to an ignition source and flash back to source of vapors.
Hazardous decomposition products in case of fire : None known.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions : Exercise caution when fighting any chemical fire.
Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Avoid all eye and skin contact and do not breathe vapor and mist. Evacuate unnecessary personnel.

6.1.1. For non-emergency personnel

Protective equipment : Wear recommended personal protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
Emergency procedures : Avoid contact with skin, eyes and clothing. Ventilate spillage area. No open flames, no sparks, and no smoking.

6.1.2. For emergency responders

Protective equipment : Wear recommended personal protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
Emergency procedures : Avoid contact with eyes, skin and clothing. Ventilate spillage area. No open flames, no sparks, and no smoking.

6.2. Environmental precautions

Avoid release to the environment. Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

For containment : Absorb spillage to prevent material-damage.
Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.
Other information : Dispose of contaminated material at an authorized site. Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection". For disposal of residues refer to section 13 : "Disposal considerations".

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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear recommended personal protective equipment. Avoid contact with skin, eyes and clothing. Avoid breathing mist, spray, vapors. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Hygiene measures	: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Use good personal hygiene practices.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	: Keep only in the original container in a cool well ventilated place. Keep container closed when not in use. Store locked up.
Incompatible materials	: Strong oxidizing agents.
Storage temperature	: 10 – 25 °C

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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No additional information available	
2-Phenoxyethanol (122-99-6)	
No additional information available	
Diacetone alcohol (123-42-2)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Diacetone alcohol
ACGIH OEL TWA [ppm]	50 ppm
Remark (ACGIH)	TLV® Basis: URT & eye irr
Regulatory reference	ACGIH 2022
USA - OSHA - Occupational Exposure Limits	
Local name	Diacetone alcohol (4-Hydroxy-4-methyl-2-pentanone)
OSHA PEL (TWA) [1]	240 mg/m ³
OSHA PEL (TWA) [2]	50 ppm
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1
USA - IDLH - Occupational Exposure Limits	
IDLH [ppm]	1800 ppm (10% LEL)
USA - NIOSH - Occupational Exposure Limits	
NIOSH REL (TWA)	240 mg/m ³
NIOSH REL TWA [ppm]	50 ppm
Monitoring methods	
Monitoring methods	No additional information available.

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8.2. Appropriate engineering controls

- Appropriate engineering controls : Ensure good ventilation of the work station. Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure.
- Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

Avoid all unnecessary exposure.

Hand protection:

Impermeable protective nitrile gloves.

Eye protection:

Chemical goggles or safety glasses.

Skin and body protection:

Long sleeved protective clothing

Respiratory protection:

An approved organic vapor respirator/supplied air or self-contained breathing apparatus must be used when vapor concentration exceeds applicable exposure limits

Other information:

Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Opaque.
Color	: Black
Odor	: alcoholic
Odor threshold	: No data available
pH	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: 69 °C
Relative evaporation rate (butyl acetate=1)	: < 1
Flammability (solid, gas)	: Not applicable.
Vapor pressure	: No data available
Relative vapor density at 20 °C	: > 4
Relative density	: 1.08 g/cm ³
Solubility	: insoluble in water.
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available

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9.2. Other information

Volatility : 84.1 %

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

Strong oxidizing agents.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified (Based on available data, the classification criteria are not met)

Acute toxicity (dermal) : Not classified (Based on available data, the classification criteria are not met)

Acute toxicity (inhalation) : Not classified (Based on available data, the classification criteria are not met)

2-Phenoxyethanol (122-99-6)	
LD50 oral rat	1850 mg/kg
LD50 dermal rat	14391 mg/kg body weight Animal: rat, Remarks on results: other:
LC50 Inhalation - Rat (Dust/Mist)	> 1000 mg/l
ATE US (oral)	1395 mg/kg body weight

Diacetone alcohol (123-42-2)	
LD50 oral rat	> 4 g/kg
LD50 dermal rabbit	13630 mg/kg
LC50 Inhalation - Rat	> 7.23 g/m ³ (Exposure time: 8 h)

Skin corrosion/irritation : Not classified (Based on available data, the classification criteria are not met)

Serious eye damage/irritation : Causes serious eye damage.

Respiratory or skin sensitization : Not classified (Based on available data, the classification criteria are not met)

Germ cell mutagenicity : Not classified (Based on available data, the classification criteria are not met)

Carcinogenicity : Not classified (Based on available data, the classification criteria are not met)

Reproductive toxicity : Suspected of damaging fertility or the unborn child.

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2-Phenoxyethanol (122-99-6)	
LOAEL (animal/male, F1)	≈ 1875 mg/kg body weight Animal: mouse, Animal sex: male, Guideline: other:
LOAEL (animal/female, F1)	≈ 1875 mg/kg body weight Animal: mouse, Animal sex: female, Guideline: other:
STOT-single exposure	: May cause respiratory irritation.
2-Phenoxyethanol (122-99-6)	
STOT-single exposure	May cause respiratory irritation.
Diacetone alcohol (123-42-2)	
STOT-single exposure	May cause respiratory irritation.
STOT-repeated exposure	: Not classified (Based on available data, the classification criteria are not met)
2-Phenoxyethanol (122-99-6)	
LOAEL (oral,rat,90 days)	> 700 mg/kg body weight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents), Guideline: EU Method B.26 (Sub-Chronic Oral Toxicity Test: Repeated Dose 90-Day Oral Toxicity Study in Rodents), Guideline: EPA OPPTS 870.3100 (90-Day Oral Toxicity in Rodents)
LOAEL (dermal,rat/rabbit,90 days)	> 500 mg/kg body weight Animal: rabbit, Guideline: OECD Guideline 411 (Subchronic Dermal Toxicity: 90-Day Study)
NOAEL (dermal,rat/rabbit,90 days)	500 mg/kg body weight Animal: rabbit, Guideline: OECD Guideline 411 (Subchronic Dermal Toxicity: 90-Day Study)
Aspiration hazard	: Not classified (Based on available data, the classification criteria are not met)
Viscosity, kinematic	: No data available
Symptoms/effects	: Suspected of damaging fertility or the unborn child.
Symptoms/effects after inhalation	: May cause respiratory irritation.
Symptoms/effects after eye contact	: Serious damage to eyes.
Other information	: Likely routes of exposure: ingestion, inhalation, skin and eye.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : This material has not been tested for environmental effects.

2-Phenoxyethanol (122-99-6)	
LC50 - Fish [1]	337 – 352 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
EC50 - Crustacea [1]	> 500 mg/l (Exposure time: 48 h - Species: Daphnia magna)
EC50 - Other aquatic organisms [1]	> 500 mg/l waterflea
LC50 - Fish [2]	366 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
EC50 - Other aquatic organisms [2]	443 mg/l
EC50 72h - Algae [1]	> 500 mg/l (Species: Desmodesmus subspicatus)
Diacetone alcohol (123-42-2)	
LC50 - Fish [1]	420 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])
LC50 - Fish [2]	420 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus)

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12.2. Persistence and degradability

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Persistence and degradability Not established.

2-Phenoxyethanol (122-99-6)

Not rapidly degradable

12.3. Bioaccumulative potential

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Bioaccumulative potential Not established.

2-Phenoxyethanol (122-99-6)

Partition coefficient n-octanol/water (Log Pow) 1.107

Diacetone alcohol (123-42-2)

Partition coefficient n-octanol/water (Log Pow) 1.03

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Effect on the ozone layer : No additional information available

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

In accordance with DOT / TDG / IMDG / IATA

DOT	TDG	IMDG	IATA
14.1. UN number			
Not regulated for transport			
14.2. Proper Shipping Name			
Not applicable	Not applicable	Not applicable	Not applicable
14.3. Transport hazard class(es)			
Not applicable	Not applicable	Not applicable	Not applicable
14.4. Packing group			
Not applicable	Not applicable	Not applicable	Not applicable

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DOT	TDG	IMDG	IATA
14.5. Environmental hazards			
Not applicable	Not applicable	Not applicable	Not applicable
No supplementary information available			

SECTION 15: Regulatory information

15.1. US Federal regulations

No additional information available

15.2. International regulations

CANADA

No additional information available

EU-Regulations

No additional information available

National regulations

No additional information available

15.3. US State regulations

No additional information available

SECTION 16: Other information

according to US HazCom 2012

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Other information : None.

Safety Data Sheet (SDS), USA

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.