



MATERIAL SAFETY DATA SHEET

Section 1: Product and Company Identification

PRODUCT NAME: Yellow Chromogen
PRODUCT CODE: SL-035/010

RECOMMENDED USE: Immunohistochemistry

MANUFACTURER: Cell IDx, Inc.
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San Diego, CA 92121

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Section 2: Composition/Information on Ingredients

Chemical Name	CAS#	Percent
Biphenyl-3,3',4,4'-tetrayl-tetraamine	91-95-2	<5%
Ethylene Glycol	107-21-1	<80%

BIPHENYL-3,3',4,4'-TETRAYL-TETRAAMINE
CAS-No.: 91-95-2

<5%
EC No.: 202-110-6

Classification (EC 1272/2008)
Muta. 2 - H341
Carc. 1B - H350

Classification (67/548/EEC)
Muta. Cat. 3;R68
Carc. Cat. 2;R45

ETHYLENE GLYCOL
CAS-No.: 107-21-1
Classification (EC 1272/2008)
Not classified

<80%
EC No.: 203-473-3
Classification (67/548/EEC)
[Xn] R22

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

Section 3: Health Identification

HEALTH HAZARD: May cause cancer, suspected of causing genetic defects

PHYSICAL HAZARDS: not hazardous

PRINCIPLE ROUTES OF EXPOSURE/
POTENTIAL HEALTH EFFECTS

Eyes: May cause temporary eye irritation
Skin: Prolonged skin contact may cause redness and irritation.
Inhalation: May cause coughing or mild irritation.



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Ingestion: May cause discomfort if swallowed.

SPECIFIC EFFECTS

Carcinogenic effects: May cause Cancer
Mutagenic effects: Suspected of causing genetic defects
Reproductive toxicity: None
Sensitization: None

Target Organ Effects: No known effects under normal use conditions

Section 4: First Aid Measures

Skin Contact: Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention promptly if symptoms occur after washing.
Eye Contact: Promptly wash eyes with plenty of water while lifting eye lids. Make sure to remove any contact lenses from the eyes before rinsing. Continue to rinse for at least 15 minutes. Obtain medical attention and bring these instructions.
Ingestion: Immediately rinse mouth and drink plenty of water (200-300mL). **DO NOT INDUCE VOMITING! NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS!** Get medical attention.
Inhalation: In case of inhalation of spray mist: Move person into fresh air and keep at rest. Get medical attention if any discomfort continues. If breathing stops, provide artificial **respiration. Get medical attention immediately!**

Indication of any immediate medical attention and special treatment needed: No specific first aid measures noted. Treat Symptomatically.

Section 5: Fire Fighting Measures

Extinguishing media: Fire can be extinguished using water spray, foam, or powder.

Special hazards arising from the substance or mixture: This product is non-combustible. If heated, irritating vapours may be formed. Hydrogen chloride (HCl). When heated and in case of fire, very toxic nitrogen oxides are formed.

Advice for firefighters: Self contained breathing apparatus and full protective clothing must be worn in case of fire.

Section 6: Accidental Release Measures

Personal precautions, protective equipment and emergency procedures: Stop leak if possible without any risk. Remove or isolate all sources of ignition. Wear protective clothing as described in Section 8 of this safety data sheet.

Environmental precautions: Do not allow to enter drains, sewers, or water sources.

Methods and material for containment and cleaning up: Absorb spillage with suitable absorbent material. Collect spillage in containers, seal securely and deliver for disposal according to local regulations. Flush with plenty of water to clean spillage area. Do not contaminate water sources or sewer.

Section 7: Handling and Storage

Precautions for safe handling:

Provide adequate ventilation, including appropriate local extraction, to ensure that the defined occupational exposure limit is not exceeded. Avoid inhalation of vapours/spray and contact with skin and eyes. Wash contaminated clothing before reuse.



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Conditions for safe storage, including any incompatibilities:

Store in tightly closed original containers in a dry, cool, and well-ventilated place.

Section 8: Exposure Controls/Personal Protection

Control Parameters:

Name: ETHYLENE GLYCOL

Workplace Exposure Limit UK- 8 hour TWA: 60 mg/m³ UK- 15 min STEL: 125mg/m³

Protective equipment: Impermeable gloves and safety glasses

Process conditions: Provide eyewash station.

Engineering measures: Provide adequate ventilation. Observe occupational exposure limits and minimize the risk of inhalation spray.

Respiratory Equipment: No specific recommendation made, but respiratory protection must be used if the general level exceeds the recommended occupational exposure limit.

Hand protection: use suitable protective gloves if risk of skin contact. The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material. Nitrile gloves are recommended, but be aware that the liquid may penetrate the gloves. Frequent change is advisable.

Skin Protection: Wear apron or protective clothing in case of contact. Wash contaminated clothing before reuse.

Hygienic measures: DO NOT SMOKE IN WORK AREA! Wash hands at the end of each work shift and before eating, smoking, and using the toilet. Wash promptly if skin becomes wet or contaminated. Promptly remove any clothing that becomes contaminated. Use appropriate skin cream to prevent drying of skin. When using do not eat, drink, or smoke.

Eye Protection: If risk of splashing, wear safety goggles or face shield.

Other Protective Clothing or Equipment: Wear appropriate clothing to prevent any possibility of skin contact.

Section 9: Physical and chemical properties

Form:	Liquid
Colour:	Light brown/purple
Odor:	Odorless
Boiling Point/Range:	<100 @ 760 mm Hg
Melting point/Range:	0°C
Relative density	~1 g/ml
Vapour density	Not determined
Vapour pressure	Not determined
Evaporation rate	Not determined
Viscosity	Not determined
Solubility Value	Not determined
Decomposition temperature	Not determined
Flash Point:	Not applicable
Auto ignition temperature	Not determined
Water solubility:	Soluble
Explosive properties:	Not applicable
Oxidizing properties	Does not meet the criteria for oxidizing

Section 10: Stability and Reactivity

Stability: Stable under normal conditions.

Materials to avoid: Strong alkalis



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Reactivity: There are no known reactivity hazards associated with this product
Conditions to avoid: Avoid exposure to high temperatures or direct sunlight.
Polymerization: Hazardous polymerization does not occur.
Hazardous decomposition products: Oxides of carbon, nitrogen

Section 11: Toxicological Information

Acute toxicity: Oral LD50: Mouse 1834 mg/kg

Skin Corrosion/Irritation:	Not determined
Human Skin Model Test	Not determined
Serious eye damage/irritation:	Not determined
Respiratory sensitization	Not determined
Skin sensitization	Not determined
Germ cell mutagenicity (InVitro)	Not determined
Carcinogenicity	Not determined
Reproductive Toxicity – Fertility	Not determined
Specific target organ toxicity - single exposure:	Not determined
STOT - Single exposure	Not determined
Specific target organ toxicity - repeated exposure:	Not determined
STOT - Repeated exposure	Not determined
Aspiration hazard:	Not determined
Viscosity	Not determined

Inhalation: In high concentrations, vapors may irritate throat and respiratory system and cause coughin.

Ingestion: Harmful if swallowed.

Skin Contact: Liquid may irritate skin. Not a skin sensitizer.

Eye Contact: Spray and vapor in eyes may cause irritation and smarting.

Health Warnings: Known or suspected mutagen. Known or suspected carcinogen for humans.

Route of entry: Ingestion, skin, and/or eye contact

Toxicological information on ingredients. BIPHENYL-3,3',4,4'-TETRAYL-TETRAAMINE (CAS: 91-95-2)

Section 12: Disposal Considerations

General information Waste is classified as hazardous waste. Disposal to licensed waste disposal site in accordance with the local Waste Disposal Authority.

Waste treatment methods: Dispose of waste and residues in accordance with local authority requirements.

Section 13: Ecological Considerations

Ecotoxicity: There are no data on the ecotoxicity of this product.

Acute Toxicity – Fish: Not determined

Persistence and degradability

Degradability: There are no data on the degradability of this product. This product is expected to be not readily biodegradable.

Bioaccumulative potential: No data available on bioaccumulation. The product does not contain any substances expected to be bioaccumulating.

Partition coefficient - Not determined

Mobility in soil: The product is soluble in water.

Results of PBT and vPvB assessment:

Not expected to be PBT or vPvB

Section 14: Transport Information



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General The product is not covered by international regulation on the transport of dangerous goods (IMDG, IATA, ADR/RID).

Road Transport Notes	Not Classified
Rail Transport Notes	Not classified
Sea Transport Notes	Not classified
Air Transport Notes	Not classified

14.1. UN number - Not applicable.

14.2. UN proper shipping name Not applicable.

14.3. Transport hazard class(es) Not applicable.

14.4. Packing group Not applicable.

14.5. Environmental hazards

Environmentally Hazardous Substance/Marine Pollutant - No.

14.6. Special precautions for user Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code - Not applicable.

Section 15: Regulatory Information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Approved Code Of Practice

Classification and Labelling of Substances and Preparations Dangerous for Supply. Safety Data Sheets for Substances and Preparations.

Guidance Notes Workplace Exposure Limits EH40.

EU Legislation

Regulation (EU) No 453/2010 of 20 May 2010 Annex II and Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 with amendments. Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments.

15.2. Chemical Safety Assessment No chemical safety assessment has been carried out.

Section 16: Other Information

General information- Only trained personnel should use this material.

Risk Phrases In Full

R22 Harmful if swallowed

R45 May cause cancer.

R68 Possible risk of irreversible effects.

Hazard Statements In Full

H350 May cause cancer.

H341 Suspected of causing genetic defects.

Disclaimer: This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its



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accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.