



Section 1: Product and Company Identification

Product name:	Binaree Tissue Clearing™ Kit (High Resolution)
Product Cat. No.	HRTC-012, 112
SDS Revision	1.0.0 (01/November/2023)
Product type or synonym:	Biological tissue clearing kit
Product use:	Laboratory reagent for animal tissue clearing.
Product description:	Biological tissue clearing kit for 3D imaging with various Microscopes. The kit consists of a sealed plastic tubes and bottles containing each solution.
Notes:	The kit contains no hazardous ingredients or pathogenic microorganisms.
Manufacturer:	Binaree, Inc.
Address:	47 Gyeongdaero17-gil Buk-gu, STE#608 IT Convergence Industry Bldg.(115), Daegu, 41566, Republic of Korea
Emergency phone:	+82 - (0)53 – 291 – 5012
Emergency email:	Lab@binaree.com

Section 2: Composition, Information on Ingredient

*Trade secret

Chemical Name	Common name and synonyms	CAS number	%
HRTC additive (Trade secret)		N/A	<50*
Urea		57-13-6	<50
Water		7732-18-5	>95

Section 3: Hazards Identification

Emergency Overview



Appearance: Liquid

Caution! May cause eye and skin irritation. May cause respiratory and digestive tract irritation. The toxicological properties of this material have not been fully investigated.

Target organs: None known.



Potential Health Effects

Eye: May cause eye irritation.

Skin: May cause Skin irritation.

Ingestion: Causes gastrointestinal irritation with nausea, vomiting and diarrhea. May cause cardiac disturbances, may be harmful if swallowed.

Inhalation: May cause respiratory tract irritation of the digestive tract. The toxicological properties of this substance have not been fully investigated.

Chronic: Prolonged or repeated exposure may cause adverse reproductive effects.

Section 4: First Aid Measures

Skin Contact: Under normal circumstances contact with the device should not result in skin irritation. If liquid media comes in contact with skin, wash with soap and water. If the media ampoule is crushed outside of the plastic body, glass splinters may enter the hands or fingers. Remove splinters with tweezers and apply disinfectant to cut areas.

Eye Contact: If liquid media enters the eye, flush with water. If the media ampoule is crushed outside of the plastic body, glass splinters may enter the eye. Do not rub eye. Flush with water. If glass cannot be dislodged with water, medical assistance may be required.

Inhalation: Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Ingestion: Get medical aid. Do not induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk and water.

Section 5: Fire Fighting Measures

Suitable extinguishing media: Water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable extinguishing media: No known unsuitable extinguishing media.

Special hazards arising from the substance: No special hazards are known to exist regarding combustion of this products.

Advice for firefighters: Wear protective gear, such as self-contained breathing apparatus, if necessary.

Section 6: Accidental Release Measures

Personal precautions: Use personal protective equipment including gloves, safety glass, mask, and lab coat or coveralls. Avoid breathing vapors, mist or gas. For personal protection see section 8.



Environmental precautions: Prevent product from entering public sewers and waterways.

Methods and materials for containment and cleaning up: Use inert absorbent material to absorb any spilled or leaked product. Keep in suitable, closed containers for disposal.

Section 7: Handling and Storage

Precautions for safe handling: Use with adequate ventilation. Wear any necessary personal protective equipment. Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation.

Storage: Store at 4°C, dry place. Store in a tightly closed container.

Section 8: Exposure Controls / Personal Protection

Control parameters: These products are not known to contain any substances with occupational exposure limit values.

Specific Engineering Controls: Facilities storing or utilizing these material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentration low.

Personal Protective Equipment

Eyes/face protection: Use only government-approved safety glasses with side-shields.

Skin and body protection: A lab coat or coveralls should be used.

Respiratory protection: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European standard EN149. Use only approved respirators and components with comply with CDC and NIOSH (US) or CEN(EU) regulations. Required only when vapors or aerosols are created.

Section 9: Physical and Chemical Properties

Odor and Appearance: the clearing kit consists of a sealed plastic tubes and bottles containing each solution. The device contains no hazardous ingredients or pathogenic organisms.

Specific Gravity: N/A

Evaporation Rate: N/A

pH: N/A

Vapor Density: N/A

Boiling Point: N/A

Coefficient of Water/Oil Distribution: N/A

Odor Threshold: N/A

Vapor Pressure: N/A

Freezing Point: N/A



Solubility in Water: N/A

Section 10: Stability and Reactivity

Chemically Stability: Product is stable when stored and used as recommended.

Reactivity: No special reactivity is known.

Stability note(s): No special or unusual instability known.

Incompatible materials: Strong oxidizing agents and strong acids/bases are incompatible with these products.

Hazardous Decomposition Products: Carbon oxides, nitrogen oxides (NO_x), sulfur oxides, irritating and toxic fumes and gases.

Polymerization: No known polymerization.

Section 11: Toxicological Information

Acute toxicity:

LD50 Oral: No toxicity data available

LD50 Dermal: No toxicity data available

LD50 Inhalation: No toxicity data available

Skin corrosion/irritation: No data available

Eye damage: No eye damage data available

Respiratory or skin sensitization: No data available

Carcinogenicity: This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA

Reproductive Toxicity: No data available

Teratogenicity: No data available

Specific target organ toxicity-single exposure: No data available

Specific target organ toxicity-repeated exposure: No data available

Aspiration hazard: No data available

Section 12: Ecological Information

Ecotoxicity information: Will slowly release ammonia and degrade to nitrate. Ammonia is a toxic hazard to fish. Urea will promote algae growth which may degrade water quality and taste



Urea Acute EC50 3910000 ug/L Fresh water; 48 hours; Daphnia-Daphnia magna-Neonate
Acute LC50>1000 mg/L Marine water; 48 hours; Crustaceans-Chaetogammarus marinus
Acute LC50 5000 ug/L Fresh water; 96 hours; Fish-Colisa fasciata-Fingerling

Section 13: Disposal Considerations

Waste disposal: The generation of waste should be avoided or minimized wherever possible. This product and its container must be disposed of in a safe way.

RCRA P-series: None listed.

RCRA U-series: None listed.

Section 14: Transport Information

DOT (US): Not a dangerous good under DOT(US) regulations.

IMDG: Not a dangerous good under IMDG regulations.

IATA: Not a dangerous good under IATA regulations.

Section 15: Regulatory Information

US FEDERAL

TSCA: CAS# 57-113-6 is listed on the TSCA inventory.

CAS# 57-50-1, CAS# 7732-18-5 are not listed on the TSCA inventory. IT is for research and development use only.

Health & Safety Reporting List: None of the chemicals are on the Health & Safety Reporting list.

Chemical Test Rules: None of the chemicals in these products are under a Chemical Test Rule.

Section 12b: None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule: None of the chemicals in this material have a SNUR under TSCA.

CERCLA Hazardous Substances and corresponding RQs: None of the chemicals in this material have an RQ.

SARA Section 302 Extremely Hazardous Substances: None of the chemicals in these products have a TPQ.

Section 313: No chemicals are reportable under Section 313.

Clear Air Act:

This material does not contain any Hazardous air pollutants.

This material does not contain any Class 1 Ozone depletors.

This material does not contain any Class 2 Ozone depletors.



Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA: None of the chemicals in this product are considered highly Hazardous by OSHA.

STATE: CAS# 57-13-6 can be found on the following state right to know lists: Minnesota.

California Prop 65: California No Significant Risk Level: None of the chemicals in this product are listed.

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: Not available

Risk Phrases

Safety Phrases: S 24/25 Avoid contact with skin and eyes.

Hazard Symbols: Not available

WGK (Water Danger/Protection):

CAS# 57-13-6

Canada-DSL/NDSL: None of the chemicals in this product are listed on the DSL or NDSL list.

Canada-WHMIS:

CAS# 57-13-6 This product has a WHMIS classification of D2B, D2A

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all of the information required by those regulations.

Canadian Ingredient Disclosure List

Section 16: Other Information

SDS Creation Date:

Revision:

Prepared by: **Binaree, Inc.**
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Safety Data Sheet (SDS)



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