

Material Safety Data Sheet

Section 1. Product and Company Identification

Product Name: Fast Red substrate Kit

Catalog Number: K3182500

Manufacturer: Biochain Inst., Inc. 3507 Breakwater Ave. Hayward, CA 94545, USA

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Validation Date: 12/17/2004

MSDS# K3182500

Component/Item (and Parts number if listed)

- 1) Fast Red RC Stock Solution
- 2) Naphthol AS-TR Phosphate Stock Solution

Section 2. Composition and Information on Hazardous (OSHA) Ingredients

- 1) Fast Red RC Stock Solution: May cause eye and skin irritation.
- 2) Naphthol AS-TR Phosphate Stock Solution: May cause eye and skin irritation.

Section 3. Hazards Identification

Review approved and the most current institutional guideline, protocol, SOP(s) and MSDS(s) for the proper handling of institutional materials/equipment associated with the use of this BCI product.

Primary Routes of Entry:

Skin Absorption (**No**); Dermal/skin contact (**Yes**); Eye contact (**Yes**); Inhalation (**Yes**); Ingestion (**Yes**); Chronic Exposure (**No**).

Medical Conditions Aggravated by Exposure: Not available.

Potential Acute Health Effects: Very hazardous in case of skin contact (irritant), and in case of inhalation (lung irritant). Hazardous in case of eye contact (irritant). Slightly hazardous in case of ingestion,

Carcinogenic Effects: Not available.

Mutagenic Effects: Not available.

Teratogenic Effects: Not available.

Section 4. First Aid Measures

Skin: Wash exposed skin with mild soap and water. Get medical attention if irritation develops or persists.

Eyes: Immediately flush with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Seek medical attention.

Inhalation: Move victim to fresh air. If irritation persists, get medical attention.

Ingestion: Do not induce vomiting. If affected person is conscious, give plenty of water to drink. Seek medical attention.

Section 5. Fire Fighting Measures

Flammability of the Product: Combustible, keep away from heat, sparks and flame.

Flash Points: 43 C (109 F).

Fire Fighting Procedures:

Small Fire: Use DRY chemical powder or carbon dioxide.

Large Fire: Use carbon dioxide, water spray, fog or foam. Do not use water hose.

Protective Clothing (Fire): Be sure to use an approved/certified respirator or equivalent.

Special Remarks on Fire Hazards: Closed containers exposed to heat may explode. Contact with strong oxidizers may cause fire.

Section 6. Accidental Release Measures

Small Spill and Leak:

Wear self-contained breathing apparatus. Shut off ignition sources; no flares, smoking or flames in the area. Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

Section 7. Handling and Storage

Handling: Avoid contact with eyes, skin, and clothing. Avoid breathing vapors or spray mists. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling.

Storage: Keep container tightly closed. Keep container in a cool, well-ventilated area.

Section 8. Exposure Controls and Personal Protection

Exposure Controls: Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work location. Consult local authorities for acceptable exposure limits.

Eyes and Face: Splash goggles.

Body: Lab coat.

Respiratory: Be sure to use NIOSH/MSHA approved respirator or equivalent. Wear appropriate respirator when ventilation is inadequate.

Hands: Gloves.

Section 9. Physical and Chemical Properties

Component	Physical State and Appearance	Color
1) Fast Red RC Stock Solution	Liquid	Brown
2) Naphthol AS-TR Phosphate Stock Solution	Liquid	Clear

Section 10. Stability and Reactivity

Stability and Reactivity: The product is stable

Incompatibility with Various Substances: Strong Acids, Alkalies and Oxidizers. Avoid contact with Aluminum, Zinc, or other reactive metals.

Section 11. Toxicological Information

Toxicity to Animals:

1) Fast Red RC Stock Solution	LD50: Not available
2) Naphthol AS-TR Phosphate Stock Solution	LD50: Not available

Chronic Effects on Humans:

Carcinogenesis Effects: Classified None by NIOSH.

Developmental Toxicity: Classified Reproductive system/toxin/female, Reproductive system/toxin/male.

Other Toxic Effects on Humans:

Hazardous in case of eye contact (irritant). Slightly hazardous in case of ingestion.

Section 12. Ecological Information

The product itself and its products of degradation are not toxic.

Section 13. Disposal Considerations

Waste Information:

Waste must be disposed of in accordance with federal, state and local environmental control regulations.

Waste Stream: Not available.

Consult your local or regional authorities.

Section 14. Transport Information

Contact BCI for all transport information.

Section 15. Regulatory Information

HCS Classification

CLASS: Target organ effects.

CLASS: Reproductive toxins

U.S. Federal Regulations

Clean Water Act (CWA) 311: 3,3'Diaminobenzidine (DAB)

Clean air act (CAA) 112 accidental release prevention: 3,3'Diaminobenzidine (DAB)

Clean air act (CAA) 112 regulated toxic substances: 3,3'Diaminobenzidine (DAB)

SARA 302/304/311/312 hazardous chemicals: 3,3'Diaminobenzidine (DAB)

International Regulations

EINECS: Not available.

DSCL (EEC) R36/37/38: Irritating to eyes, skin, and respiratory system

Section 16. Other Information

Validated by BCI Administration on 12/01/2004. Verified by BCI Administration and Printed on 12/15/2004.

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N/A - Not applicable or no information available.