

Material Safety Data Sheet

according to 1907/2006/EC, Article 31



Product name: **N**-Histofine DAB-3S kit
3,3'-DIAMINO BENZIDINE TETRA HYDROCHLORIDE (DAB) SUBSTRATE KIT
SUBSTRATE FOR HORSERADISH PEROXIDASE

Revised Date: 06/Jan/2009
Issued Date: 11/Nov/2006

Section 1. Product identification

Product Number: 415192F(500tests), 415194F(1500tests) **CAS Number:** None
Consistent name: Reagent A : DAB solution concentrate **Formula:** None
Reagent B : Enhancer solution concentrate **EINECS Number:** None
Reagent C : Hydrogen peroxide solution concentrate
Chemical nature: Aqueous, chemical reagents containing mixture

Manufacturer's name: NICHIREI BIOSCIENCES INC.

Address (Number, Street, City, State, and ZIP Code): 6-19-20, TSUKIJI, CHUO-KU, TOKYO, 104-8402, JAPAN

Emergency Telephone Number: 81-3-3248-2207

Section 2. Hazards identification

NFPA RATINGS (SCALE 0-4): HEALTH=1 FIRE=0 REACTIVITY=0

EC CLASSIFICATION: No classification assigned.

EMERGENCY OVERVIEW:

COLOR: Light yellow color **PHYSICAL FORM:** liquid **ODOR:** odorless to faint odor
MAJOR HEALTH HAZARDS: No information.

POTENTIAL HEALTH EFFECTS:

INHALATION:

SHORT TERM EXPOSURE: No information. But it may be harmful.

LONG TERM EXPOSURE: It should be harmful.

SKIN CONTACT:

SHORT TERM EXPOSURE: No information. But it may be harmful.

LONG TERM EXPOSURE: It should be harmful.

EYE CONTACT:

SHORT TERM EXPOSURE: No information. But it may be harmful.

LONG TERM EXPOSURE: It should be harmful.

INGESTION:

SHORT TERM EXPOSURE: nausea, diarrhea, vomiting, irregular heartbeat

LONG TERM EXPOSURE: It should be harmful.

Section 3. Composition / information on ingredients

Reagent A : DAB solution concentrate

RISK PHRASES: R22,R36/R37/R38

1.COMPONENT: 3,3'-Diaminobenzidine tetra hydrochloride

CAS NUMBER: 7411-49-6.

EC NUMBER: 231-018-9

PERCENTAGE: <1

EC CLASSIFICATION: No classification assigned.

2.COMPONENT: Non-hazardous

CAS NUMBER: Not assigned.

EC NUMBER: Not assigned.

PERCENTAGE: 90-100

EC CLASSIFICATION: No classification assigned.

Reagent B : Enhancer solution concentrate

RISK PHRASES: Not assigned.

1.COMPONENT: Non-hazardous

CAS NUMBER: Not assigned.

EC NUMBER: Not assigned.

EC CLASSIFICATION: No classification assigned.

Reagent C : Hydrogen peroxide solution concentrate

RISK PHRASES: R22,R36/R37/R38

1.COMPONENT: Hydrogen peroxide

CAS NUMBER: 7722-84-1

EC NUMBER: Not assigned.

EC NUMBER: Not assigned.

PERCENTAGE: <0.1

EC CLASSIFICATION: Xi

2.COMPONENT: Non-hazardous

CAS NUMBER: Not assigned.

EC NUMBER: Not assigned.

PERCENTAGE: 90-100

EC CLASSIFICATION: No classification assigned.



Section 4. First aid measures

- INHALATION:** Remove to the place with fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.
- SKIN CONTACT:** Rinse the skin with plenty of water immediately at least 15 minutes. Remove contaminated clothing and shoes. Seek medical advice. In case of accident or if you feel unwell, seek medical advice immediately.
- EYE CONTACT:** Rinse immediately with plenty of water at least 15 minutes. Seek medical advice.
- INGESTION:** Rinse the mouth with plenty of water immediately and seek medical advice.

Section 5. Fire fighting measures

- EXTINGUISHING MEDIA:** Water Spray, Carbon Dioxide, Dry Chemical Powder, or Appropriate Form
- FIRE FIGHTING:** Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. If possible, have this product removed from the fire scene.
- SENSITIVITY TO MECHANICAL IMPACT:** Not sensitive
- SENSITIVITY TO STATIC DISCHARGE:** Not sensitive
- FLASH POINT:** Not determined

Section 6. Accidental release measures

- Prevent contact with eyes and skin. Ensure adequate ventilation.
- If allowed, flush to sewer it or collect on absorbent material and dispose of according to local regulations.

Section 7. Handling and storage

- STORAGE:** Store at 2-8 °C (35.6-46.4 °F) in dark place.

Section 8. Exposure Controls /Special Protection Information

- EXPOSURE LIMIT:** No occupational exposure limits established
- VENTILATION:** Provide adequate ventilation. Ensure compliance with applicable exposure limits.
- EYE PROTECTION:** Safety glasses or goggles are recommended when there is a potential for eye contact. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.
- CLOTHING:** Lab coat or apron.
- PROTECTIVE MATERIAL TYPES:** latex, vinyl
- RESPIRATOR:** No respirator is required under normal conditions of use.

Section 9. Physical and chemical properties

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| BOILING POINT: Stable at normal temperatures and pressure. | FREEZING POINT: Not available |
| VAPOR PRESSURE: Not available | VAPOR DENSITY: Not available |
| SPECIFIC GRAVITY: Not available | WATER SOLUBILITY: Not available |
| pH: 7.0-8.0 | VOLATILITY: Not available |
| ODOR THRESHOLD: Not available | EVAPORATION RATE: Not available |
| COEFFICIENT OF WATER/OIL DISTRIBUTION: Not available | |

Section 10. Stability and reactivity

- REACTIVITY:** Stable at normal temperatures and pressure.
- CONDITIONS TO AVOID:** None reported.
- INCOMPATIBILITIES:** Oxidizing materials, bases
- HAZARDOUS DECOMPOSITION:** None reported.
- THERMAL DECOMPOSITION PRODUCTS:** Miscellaneous decomposition products
- POLYMERIZATION:** Will not polymerize.

Section 11. Toxicological information

Not available

Section 12. Ecological information

Not available

Section 13. Disposable considerations

Not available



Section 14. Transport information

Not available

Section 15. Regulatory information

U.S. REGULATIONS:

CERCLA SECTIONS 102a/103 HAZARDOUS SUBSTANCES (40 CFR 302.4):

SARA TITLE III SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355.30): Not regulated.

SARA TITLE III SECTION 304 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355.40): Not regulated.

SARA TITLE III SARA SECTIONS 311/312 HAZARDOUS CATEGORIES (40 CFR 370.21):

ACUTE: No

CHRONIC: No

FIRE: No

REACTIVE: No

SUDDEN RELEASE: No

REACTIVE: No

SARA TITLE III SECTION 313 (40 CFR 372.65): Not regulated.

STATE REGULATIONS: California Proposition 65: Not regulated.

CANADIAN REGULATIONS:

WHMIS CLASSIFICATION: Not determined

Section 16. Other information

EC RISK PHRASES:

R 22	Harmful if swallowed.
R 36	Irritating to eyes.
R 43	May cause sensitization by skin contact.

LIMITATIONS: The above information is believed to be correct, but does not purport to be all inclusive and shall be used only as a guide.

Nichirei Biosciences, Inc. shall not be held responsible for any damage resulting from the use of the above product or the information contained in this Material Safety Data Sheet.