Material Safety Data Sheet

SECTION 1. IDENTIFICATION

Flouro-Jade C Ready-to-Dilute Staining Kits
Catalog number: TR-100-FJ/TR-100-FJ
MANUFACTURER: Biosensis Pty. Ltd.

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS:

CAS # None

KIT COMPONENTS: (final working conditions)

Solution A: Sodium Hydroxide: 0.2% in 80% ethanol. (Ethanol not included in kit)
Solution B: Potassium Permanganate 0.06% in water
Solution C: Fluooro-Jade C .0001% in acidified water
Solution D: DAPI .0001% in water
Section 1: Chemical Product and Company Identification

MANUFACTURER: Biosensis Pty. Ltd.
EMERGENCY TELEPHONE NUMBERS: Telephone + 61 8 83527711

Biosensis: 40-46 West Thebarton Road, Thebarton, South Australia, 5031
Email sales@biosensis.com • www.biosensis.com

Product Name: Sodium Hydroxide, .2%
Catalog Codes: SLS4552
CAS#: Mixture.
RTECS: Not applicable.
TSCA: TSCA 8(b) inventory: Sodium hydroxide; Water
CI#: Not applicable.
Synonym:
Chemical Name: Not applicable.
Chemical Formula: Not applicable.

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS:

Hazardous Component(s): CAS Number
NaOH 0.2% 1310-73-2

SECTION 3: HAZARDS IDENTIFICATION:

Potential Acute Health Effects:
Hazardous in case of skin contact (corrosive, irritant), of eye contact (irritant), of ingestion. Slightly hazardous in case of inhalation. Liquid or spray mist may produce tissue damage particularly on mucous membranes of eyes, mouth and respiratory tract. Skin contact may produce burns. Inhalation of the spray mist may produce severe irritation of respiratory tract, characterized by coughing, choking, or shortness of breath.

Potential Chronic Health Effects:
MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available.
DEVELOPMENTAL TOXICITY: Not available. The substance is toxic to lungs, mucous membranes. Repeated or prolonged exposure to the substance can produce target organs damage. Repeated or prolonged contact with spray mist may produce chronic eye irritation and severe skin irritation. Repeated or prolonged exposure to spray mist may produce respiratory tract irritation leading to frequent attacks of bronchial infection.

SECTION 4: FIRST-AID MEASURES:

Eye Contact: Irrigate with copious amounts of fresh water.
Skin Contact: Wash with clean water or soap and water.
Inhalation: Move to an outside area and breath fresh air. Clear the nose by blowing.
Ingestion: Flush out the mouth with water and drink copious amounts of fresh water. Seek medical advice.
SECTION 5: FIRE FIGHTING MEASURES:
Extinguishing media: Water spray, carbon dioxide, dry chemical power or appropriate foam. Prevent contact with skin and eyes.
Flash Point: 54°F TCC Flammable Limits: LEL 6.7 UEL 36.5
Extinguishing Media: Water spray, dry chemical, CO2 and foam for alcohol
Special Fire Fighting Procedures: Wear protective clothing with NIOSH approved breathing apparatus.
Products of combustion may be harmful in a fire situation. Do not use direct water stream.
Unusual Fire & Explosion Hazards: Eliminate sources of ignition. Burns with invisible flame.

SECTION 6: ACCIDENTAL RELEASE MEASURES:
Wear respirator, chemical safety goggles, rubber boots and heavy rubber gloves. Spilled material should be carefully wiped up with water and removed.
Small Spill:
Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. If necessary: Neutralize the residue with a dilute solution of acetic acid.
Large Spill:
Corrosive liquid. Stop leak if without risk. Absorb with DRY earth, sand or other non-combustible material. Do not get water inside container. Do not touch spilled material. Use water spray curtain to divert vapor drift. Prevent entry into sewers,

SECTION 7: STORAGE AND HANDLING:
Precautions:
Keep container dry. Do not breathe gas/fumes/vapour/spray. Never add water to this product If you feel unwell, seek medical attention and show the label when possible. Avoid contact with skin and eyes Keep away from incompatibles such as acids.
Storage:
Alkalis may be stored in heavy duty gauge steel containers. Corrosive materials should be stored in a separate safety storage cabinet or room.

SECTION 8: EXPOSURE CONTROLS/PERSOAL PROTECTION:

Safety shower and eye bath, mechanical exhaust required. Wash thoroughly after handling.
Wash contaminated clothing before reuse. Avoid inhalation. Avoid contact with eyes, skin and clothing.
Store as indicated on product label. Avoid prolonged or repeated exposure.
SPECIAL PROTECTIVE EQUIPMENT: Wear suitable protective clothing, including gloves, safety glasses, dust mask, and a laboratory coat.
SPECIAL PRECAUTIONS: Not for human or drug use. Not for household use.
Exposure Limits:
Sodium hydroxide CEIL: 2 (mg/m3) from ACGIH [1995] Consult local authorities for acceptable exposure limits.
SECTION 9: APPEARANCE and ODOR:

Liquid
Boiling Point: 148°F Specific Gravity (H2O = 1): 0.86
Vapor Pressure mm Hg/20°C: 96 Percent Volatile by Vol: 91%
Vapor Density (Air 1:1): 1.11 Evaporation Rate (ether = 1): >1
Solubility in H2O: Complete Appearance & Odor: Clear Liquid, Pungent Odor

SECTION 10: STABILITY AND REACTIVITY:

Stability: The product is stable.
Instability Temperature: Not available.
Conditions of Instability: Not available.
Incompatibility with various substances: Extremely reactive or incompatible with acids.
Corrosivity:
Highly corrosive in presence of aluminum. Slightly corrosive to corrosive in presence of glass.
Special Remarks on Reactivity: Not available.
Special Remarks on Corrosivity: Not available.
Polymerization: No.

SECTION 11: TOXICOLOGICAL INFORMATION:

The toxicology of this material has not been fully tested, however to the best of our knowledge this material is not hazardous

SECTION 12: ECOLOGICAL INFORMATION:

Data not yet available.

SECTION 14: TRANSPORT INFORMATION:

DOT Classification: CLASS 8: Corrosive liquid.
Identification: : Sodium hydroxide, solution (Sodium hydroxide) : UN1824 PG: III
Special Provisions for Transport: Not available.

SECTION 15: REGULATORY INFORMATION

Federal and State Regulations:
Pennsylvania RTK: Sodium hydroxide Massachusetts RTK: Sodium hydroxide TSCA 8(b)
inventory: Sodium hydroxide: Water
Other Classifications:
WHMIS (Canada):
CLASS D-2A: Material causing other toxic effects (VERY TOXIC). CLASS E: Corrosive liquid.
HMIS (U.S.A.):
Health Hazard: 1
Fire Hazard: 0
Reactivity: 0

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Personal Protection:
National Fire Protection Association (U.S.A.):
Health: 1
Flammability: 0
Reactivity: 0
Specific hazard:
Protective Equipment:
Gloves. Full suit. Wear appropriate respirator when ventilation is inadequate. Face shield.

SECTION 16: OTHER INFORMATION:
The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Biosensis be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Biosensis has been advised of the possibility of such damages.
Section 1: Chemical Product and Company Identification

Fluoro-Jade C Ready-to-Dilute Staining Kit
Catalog number: TR-100-FJT

MANUFACTURER: Biosensis Pty. Ltd.
Biosensis: 40-46 West Thebarton Road, Thebarton, South Australia, 5031
Email sales@biosensis.com • www.biosensis.com

Product Name: Potassium Permanganate 0.06% solution.

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS:

Potassium Permanganate 0.06%
CAS # 7722-64-7

SECTION 3: HAZARDS IDENTIFICATION:

Appearance: Clear light amber
Caution! May cause eye irritation and possible burns. May cause respiratory tract irritation. May cause skin irritation.
Target Organs: None known.
Potential Health Effects
Eye:
May cause moderate eye irritation.
Skin:
May cause skin irritation.
Ingestion:
May cause gastrointestinal irritation.
Inhalation:
May cause mucous membrane irritation.
Chronic:
May cause dermatitis and conjunctivitis. Sulfuric acid - repeated exposure to mist may cause chronic tracheobronchitis, erosion and discoloration of teeth.

SECTION 4: FIRST-AID MEASURES:

Eye Contact: Irrigate with copious amounts of fresh water.
Skin Contact: Wash with clean water or soap and water.
Inhalation: Move to an outside area and breath fresh air. Clear the nose by blowing.
Ingestion: Flush out the mouth with water and drink copious amounts of fresh water. Seek medical advice.

SECTION 5: FIRE FIGHTING MEASURES:

Extinguishing media: Water spray, carbon dioxide, dry chemical power or appropriate foam.
Prevent contact with skin and eyes.
Extinguishing Media: Water spray, dry chemical, CO2 and foam for alcohol
Special Fire Fighting Procedures: Wear protective clothing with NIOSH approved breathing apparatus.

SECTION 6: ACCIDENTAL RELEASE MEASURES:
Wear respirator, chemical safety goggles, rubber boots and heavy rubber gloves. Spilled material should be carefully wiped up with water and removed.

Small Spill:
Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. If necessary: Neutralize the residue with a dilute solution of acetic acid.

Large Spill:
Corrosive liquid. Stop leak if without risk. Absorb with DRY earth, sand or other non-combustible material. Do not get water inside container. Do not touch spilled material. Use water spray curtain to divert vapor drift. Prevent entry into sewers.

SECTION 7: STORAGE AND HANDLING:

Precautions:
Keep container dry. Do not breathe gas/fumes/vapour/spray. Never add water to this product If you feel unwell, seek medical attention and show the label when possible. Avoid contact with skin and eyes. Keep away from incompatibles such as acids.

Storage:
Alkalis may be stored in heavy duty gauge steel containers. Corrosive materials should be stored in a separate safety storage cabinet or room.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION:

Safety shower and eye bath, mechanical exhaust required. Wash thoroughly after handling. Wash contaminated clothing before reuse. Avoid inhalation. Avoid contact with eyes, skin and clothing.

Store as indicated on product label. Avoid prolonged or repeated exposure.

SPECIAL PROTECTIVE EQUIPMENT: Wear suitable protective clothing, including gloves, safety glasses, dust mask, and a laboratory coat.

SPECIAL PRECAUTIONS: Not for human or drug use. Not for household use.

Exposure Limits:
Sodium hydroxide CEIL: 2 (mg/m3) from ACGIH [1995] Consult local authorities for acceptable exposure limits.

SECTION 9: APPEARANCE and ODOR:
Liquid, light purple in color

SECTION 10: STABILITY AND REACTIVITY:
Stability: The product is stable.
Instability Temperature: Not available.
Conditions of Instability: Not available.
Incompatibility with various substances: none
Corrosivity: not available
Special Remarks on Reactivity: Not available.
Special Remarks on Corrosivity: Not available.
Polymerization: No.

SECTION 11: TOXICOLOGICAL INFORMATION:
The toxicology of this material has not been fully tested, however to the best of our knowledge this material is not hazardous.

SECTION 12: ECOLOGICAL INFORMATION:
Ecotoxicity: Fish: Channel catfish: LC50 = 0.75 mg/L; 96 Hr; Unspecified Goldfish: LC50 = 3.6 mg/L; 24 Hr; Unspecified Striped bass: LC50 = 1.5-5.0 mg/L; 24 Hr; Static bioassay No data available.
Environmental: No information available.
Physical: No information available.
Other: Harmful to aquatic life in very low concentrations.

SECTION 13: DISPOSAL INFORMATION:
Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.
RCRA P-Series: None listed.
RCRA U-Series: None listed.

SECTION 14: TRANSPORT INFORMATION:
| Hazard class | 5.1 | 5.1 |
| UN Number:   | UN1490 | UN1490 |
| Packing Group: | II | II |

SECTION 15: REGULATORY INFORMATION
TSCA
CAS# 7722-64-7 is listed on the TSCA inventory.
Health & Safety Reporting List
None of the chemicals are on the Health & Safety Reporting List.
Chemical Test Rules
None of the chemicals in this product are under a Chemical Test Rule.
Section 12b
None of the chemicals are listed under TSCA Section 12b.
TSCA Significant New Use Rule
05/12/17/MSDS FJ working solutions/LMF Rev 11

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None of the chemicals in this material have a SNUR under TSCA.

**SARA**

**CERCLA Hazardous Substances and corresponding RQs**
CAS# 7722-64-7: 100 lb final RQ; 45.4 kg final RQ

**SARA Section 302 Extremely Hazardous Substances**
None of the chemicals in this product have a TPQ.

**SARA Codes**
CAS # 7722-64-7: acute, flammable.

**Section 313**
This material contains Permanganic permanganate (listed as Manganese), 100%, (CAS# 7722-64-7) which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.

**Clean Air Act:**
This material does not contain any hazardous air pollutants. This material does not contain any Class 1 Ozone depleters. This material does not contain any Class 2 Ozone depleters.

**Clean Water Act:**
CAS# 7722-64-7 is listed as a Hazardous Substance 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# 7722-64-7 can be found on the following state right to know lists: California, New Jersey, Pennsylvania, Massachusetts.
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:**
X N O N

**Risk Phrases:**
R 22 Harmful if swallowed.
R 8 Contact with combustible material may cause fire.
R 50/53 Very toxic to aquatic organisms; may cause long-term adverse effects in the aquatic environment.

**Safety Phrases:**
S 60 This material and/or its container must be disposed of as hazardous waste.
S 61 Avoid release to the environment. Refer to special instructions/Safety data sheets.

**WGK (Water Danger/Protection)**
CAS# 7722-64-7: 2
Canada - DSL/NDSL
CAS# 7722-64-7 is listed on Canada's DSL List.

Canada - WHMIS
This product has a WHMIS classification of C, E.

Canadian Ingredient Disclosure List
CAS# 7722-64-7 is listed on the Canadian Ingredient Disclosure List.

Exposure Limits
CAS# 7722-64-7: OEL-AUSTRALIA:TWA 5 mg(Mn)/m3 JANUARY 1993 OEL-BELGIUM:TWA 5 mg(Mn)/m3 JANUARY 1993 OEL-CZECHOSLOVAKIA:TWA 2 mg(Mn)/m3 STEL 6 mg(Mn)/m3 JANUARY 1993 OEL-DENMARK:TWA 2.5 mg(Mn)/m3 JANUARY 1993 OEL-FINLAND:TWA 2.5 mg(Mn)/m3 JANUARY 1993 OEL-HUNGARY:TWA 0.3 mg(Mn)/m3 STEL 0.6 mg(Mn)/m3 JANUARY 1993 OEL-JAPAN:TWA 0.3 mg(Mn)/m3 STEL 0.6 mg(Mn)/m3 JANUARY 1993 OEL-UNITED KINGDOM:TWA 5 mg(Mn)/m3 JANUARY 1993 OEL-POLAND:TWA 0.3 mg(Mn)/m3 JANUARY 1993 OEL-SWEDEN:TWA 1 mg(Mn)/m3 STEL 2.5 mg(Mn)/m3 (resp. dust) OEL-SWEDEN:TWA 2.5 mg(Mn)/m3 STEL 5 mg(Mn)/m3 (total dust) OEL-SWEDEN:STEL 5 mg(Mn)/m3 JANUARY 1993 OEL IN BULGARIA, COLOMBIA, JORDAN, KOREA check ACGIH TLV OEL IN NEW ZEALAND, SINGAPORE, VIETNAM check ACGI TLV

SECTION 16: OTHER INFORMATION:
The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Biosensis be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Biosensis has been advised of the possibility of such damages.
Material Safety Data Sheet Identification:
Fluoro-Jade C Ready-to-Dilute Staining Kit
Catalog number: TR-100-FJ/TR-100-FJT

MANUFACTURER: Biosensis Pty. Ltd.
EMERGENCY TELEPHONE NUMBERS:
Telephone + 61 8 83527711
Biosensis: 40-46 West Thebarton Road, Thebarton, South Australia, 5031
Email sales@biosensis.com • www.biosensis.com

Product Name: Fluoro-Jade solution 0.0001%

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS:
CAS # None
HAZARDOUS INGREDIENTS: No hazardous ingredients are contained in this product.

SECTION 3: HAZARDS IDENTIFICATION:
TOXICITY HAZARDS:
RTECS Number: Not Assigned.
To the best of our knowledge, no toxicity hazards are associated with this product.

SECTION 4: FIRST-AID MEASURES:
Eye Contact: Irrigate with copious amounts of fresh water.
Skin Contact: Wash with clean water or soap and water.
Inhalation: Move to an outside area and breath fresh air. Clear the nose by blowing.
Ingestion: Flush out the mouth with water and drink copious amounts of fresh water. Seek medical advice.

SECTION 5: FIRE FIGHTING MEASURES:
Extinguishing media: Water spray, carbon dioxide, dry chemical power or appropriate foam.
Prevent contact with skin and eyes.

SECTION 6: ACCIDENTAL RELEASE MEASURES:
Wear respirator, chemical safety goggles, rubber boots and heavy rubber gloves. Spilled material should be carefully wiped up with water and removed.

SECTION 7: STORAGE AND HANDLING:
Refer to section 8.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION:
Safety shower and eye bath, mechanical exhaust required. Wash thoroughly after handling.
Wash contaminated clothing before reuse. Avoid inhalation. Avoid contact with eyes, skin and clothing.
Store as indicated on product label. Avoid prolonged or repeated exposure.
SPECIAL PROTECTIVE EQUIPMENT: Wear suitable protective clothing, including gloves, safety glasses, dust mask, and a laboratory coat.
SPECIAL PRECAUTIONS: Not for human or drug use. Not for household use.
SECTION 9: APPEARANCE and ODOR:
Liquid

SECTION 10: STABILITY AND REACTIVITY:
Stability: Stable under normal handling procedures.

SECTION 11: TOXICOLOGICAL INFORMATION:
The toxicology of this material has not been fully tested, however to the best of our knowledge this material contains no hazardous materials.

SECTION 12: ECOLOGICAL INFORMATION:
Data not yet available.

SECTION 13: DISPOSAL CONSIDERATIONS:
Contact a licensed professional waste disposal service to dispose of this material. Observe all federal, state and local environmental regulations.

SECTION 14: TRANSPORT INFORMATION:
Contact biosensis for transport information.

SECTION 15: REGULATORY INFORMATION
EUROPEAN INFORMATION: Caution: substance not yet fully tested.

SECTION 16: OTHER INFORMATION:
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Material Safety Data Sheet Identification:
Fluoro-Jade C Ready-to-Dilute Staining Kit
Catalog number: TR-100-FJ/TR-100-FJT

MANUFACTURER: Biosensis Pty. Ltd.
Biosensis: 40-46 West Thebarton Road, Thebarton, South Australia, 5031
Email sales@biosensis.com • www.biosensis.com

Product Name: DAPI solution 0.001% in water

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS:

CAS # 28718-90-3

DAPI solution 0.0001%

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS:

CAS # None
HAZARDOUS INGREDIENTS: No hazardous ingredients are contained in this product.

SECTION 3: HAZARDS IDENTIFICATION:

TOXICITY HAZARDS:
RTECS Number: Not Assigned.
To the best of our knowledge, no toxicity hazards are associated with this product.

SECTION 4: FIRST-AID MEASURES:

Eye Contact: Irrigate with copious amounts of fresh water.
Skin Contact: Wash with clean water or soap and water.
Inhalation: Move to an outside area and breath fresh air. Clear the nose by blowing.
Ingestion: Flush out the mouth with water and drink copious amounts of fresh water. Seek medical advice.

SECTION 5: FIRE FIGHTING MEASURES:

Extinguishing media: Water spray, carbon dioxide, dry chemical power or appropriate foam.
Prevent contact with skin and eyes.

SECTION 6: ACCIDENTAL RELEASE MEASURES:

Wear respirator, chemical safety goggles, rubber boots and heavy rubber gloves. Spilled material should be carefully wiped up with water and removed.

SECTION 7: STORAGE AND HANDLING:

Refer to section 8.
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION:

Safety shower and eye bath, mechanical exhaust required. Wash thoroughly after handling. Wash contaminated clothing before reuse. Avoid inhalation. Avoid contact with eyes, skin and clothing. Store as indicated on product label. Avoid prolonged or repeated exposure.

SPECIAL PROTECTIVE EQUIPMENT: Wear suitable protective clothing, including gloves, safety glasses, dust mask, and a laboratory coat.

SPECIAL PRECAUTIONS: Not for human or drug use. Not for household use.

SECTION 9: APPEARANCE and ODOR:

Liquid, yellow.

SECTION 10: STABILITY AND REACTIVITY:

Stability: Stable under normal handling procedures.

SECTION 11: TOXICOLOGICAL INFORMATION:

The toxicology of this material has not been fully tested, however to the best of our knowledge this material contains no hazardous materials.

SECTION 12: ECOLOGICAL INFORMATION:

Data not yet available.

SECTION 13: DISPOSAL CONSIDERATIONS:

Contact a licensed professional waste disposal service to dispose of this material. Observe all federal, state and local environmental regulations.

SECTION 14: TRANSPORT INFORMATION:

Contact biosensis for transport information.

SECTION 15: REGULATORY INFORMATION

EUROPEAN INFORMATION: Caution: substance not yet fully tested.

SECTION 16: OTHER INFORMATION:

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