

Safety Data Sheet

Control Number: 907-058

FISH Probes, FISH Hybridization Buffer, HFA###, HFR###, HFI###, CFA###, CFR###, CFI###, PFA###, PFR###, PFI###, FRR7311A


April 5, 2017

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1. Product and Company Identification

Product(s)	FISH Probes (HFA###, HFR###, HFI###, CFA###, CFR###, CFI###, PFA###, PFR###, PFI###) FISH Hybridization Buffer (FRR7311A)
Related Product Kit	Not Applicable
Intended Use & Restrictions	FISH reagent intended for use by professional laboratory personnel that have been properly trained in its use.
Company Information	Biocare Medical, LLC 4040 Pike Lane Concord, CA 94520 United States Tel: +1 800-799-9499 (7AM-5PM, PST, Mon-Fri) Fax: +1 925-603-8080 Web: www.biocare.net
24-Hour Emergency Contact	CHEMTREC +1 800-424-9300 (USA and Canada only) +1 703-527-3887 (all other countries)

2. Hazards Identification

Emergency Overview	Harmful solution containing formamide; may be toxic. Avoid contact with eyes and skin. Wear gloves, lab coat, and eye protection.
OSHA Hazards	Target Organ Effect, Irritant, Teratogen, Reproductive hazard, Mutagen Target Organs: Blood
GHS Classification Signal words, Symbol, Hazard & Precautionary Statements	 Danger Carcinogenicity (Category 2) Reproductive toxicity (Category 1B) Specific target organ toxicity - repeated exposure, Oral (Category 2), Blood Hazard statement(s) H351 Suspected of causing cancer. H360 May damage fertility or the unborn child. H373 May cause damage to organs (Blood) through prolonged or repeated exposure if swallowed. Precautionary statement(s) P201 Obtain special instructions before use. P202 Do not handle until all safety precautions have been read and understood. P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray. P281 Use personal protective equipment as required. P308 + P313 IF exposed or concerned: Get medical advice/ attention. P405 Store locked up. P501 Dispose of contents/ container to an approved waste disposal plant

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Potential Health Effects

Skin Contact May be harmful if exposed to skin. Cause skin irritation. May cause itching, redness or inflammation.

Eye Contact May be harmful if exposed to eyes. Causes eye irritation. May cause watering eyes, stinging or burning sensation.

Inhalation May be harmful if inhaled. Causes respiratory tract irritation. May cause headache, dizziness, nausea or coughing.

Ingestion May be harmful if swallowed. May cause irritation of gastrointestinal tract, nausea, or vomiting.

See Section 11: Toxicological Information for additional information.

Environmental Effects Toxic to aquatic life.

See Section 12: Ecological Information for additional information.

3. Composition / Information on Ingredients

Chemical Name	Synonyms	% Composition	CAS Number
Formamide	Formic Acid	50%	75-12-7
Dextran Sulfate	Dextran Sodium Sulfate	10%	9011-18-1

Note: It has been determined that the remaining ingredients of this product are not classified as hazardous according to the Federal OSHA Hazardous Communication Standard (29 CFR 1910.1200) or the Globally Harmonized System of Classification and Labeling of Chemicals.

4. First Aid Measures

General Advice Avoid further exposure to product. Consult a physician.

In case of skin contact Wash exposed area with soap and plenty of water. Remove any contaminated clothing. Seek medical attention.

In case of eye contact Wash eyes with plenty of water for at least 15 minutes. Have victim remove contact lenses. Be sure to wash under eyelids. Seek medical attention.

If inhaled Remove victim to well-ventilated area. If victim is not breathing, give artificial respiration. Seek medical attention.

If swallowed If victim is conscious, rinse mouth with water. Do not give anything to an unconscious victim. Seek medical attention.

5. Fire Fighting Measures

Suitable Extinguishing Media Water spray, alcohol-resistant foam, dry chemical, or carbon dioxide. Use extinguisher media appropriate for surrounding fire.

Special Protective Equipment for Firefighters Wear self-contained breathing apparatus and protective clothing to prevent contact with eyes and skin

Special Exposure Hazards Avoid inhalation of fumes, which may be toxic or irritating.

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6. Accidental Release Measures

- Personal Precautions** Use of personal protective equipment is recommended as described in Section 8. Isolate hazard area and deny entry to unprotected personnel
- Environmental Precautions** Prevent further leakage or spillage if safe to do so. Keep out of drains, sewers, ditches and waterways.
- Methods for containment and clean up** Small spills may be contained and cleaned-up with paper towels or absorbent pads. Absorb large spills with sand or vermiculite and place in a closed container for waste disposal. Avoid physical contact during removal.

7. Handling and Storage

- Precautions for Safe Handling** Avoid contact with eyes, skin and clothing. Do not ingest. Wash hands thoroughly after use.
- Conditions for Safe Storage** Keep container tightly closed. Keep container in a cool, well-ventilated area, and away from light.

8. Exposure Controls / Personal Protection

- Permissible Exposure Limits** USA ACGIH Threshold Limit Values (Formamide): TWA 10 ppm
USA NIOSH Recommended Exposure Limits (Formamide): TWA 10 ppm, 15 mg/m³
- Engineering Controls** No special controls needed.

Personal Protective Equipment

- Eye Protection** Wear chemical splash goggles and face shield when eye and face contact is possible due to splashing or spraying of material.
- Skin Protection** Use chemically resistant gloves and a lab coat with sleeves.
- Respiratory Protection** Exceeding exposure limits is unlikely during normal usage. However, if irritating vapors are produced, respiratory protection is recommended. Attempt to reduce exposure levels to an acceptable range.
- General Hygiene Measures** Avoid contact with eyes, skin and clothing. Wash hands thoroughly after handling and before eating or drinking.

9. Physical and Chemical Properties

- Appearance** Clear solution. May be colorless or colored (pink, purple, orange, yellow), depending upon the specific product.
- Odor** None
- pH (as supplied)** No data available
- Melting point** No data available
- Boiling point** No data available
- Flash point** No data available
- Flammability** No data available
- Lower explosion limit** No data available
- Upper explosion limit** No data available

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Vapor pressure	No data available
Vapor density	No data available
Specific gravity	No data available
Solubility (in water)	Soluble
Partition coefficient (n-octanol/water)	No data available
Auto-ignition temperature	No data available
Decomposition Temperature	No data available

10. Stability and Reactivity

Chemical Stability	Stable under recommended storage conditions (see Section 7).
Conditions to avoid	Direct light.
Materials to avoid	Oxidizing agents, acids, bases.
Hazardous decomposition products	Hazardous decomposition products formed under fire conditions: carbon monoxide, carbon dioxide, nitrogen oxides.
Possibility of hazardous reactions	None identified.

11. Toxicological Information

Acute dose effects	Formamide: LD50 Oral – rat – 5325 mg/kg LC50 Inhalation – rat – 4h – 21 mg/L LD50 Dermal – rat – >3000 mg/kg Dextran Sulfate : LD50 Oral- Mouse -25200 mg/kg LD50 Oral –Rat- 20600 mg/kg LD50 Intravenous -Rat -473 mg/kg
Repeat dose effects	No data available
Skin irritation	No data available
Skin and respiratory sensitization	Formamide: Did not cause sensitization on laboratory animals
Eye irritation	Formamide: Eyes – rabbit – Mild eye irritation
Carcinogenicity	No component of this product present at levels greater than or equal to 0.1% is identified as a probable, possible, potential, known, anticipated, or confirmed carcinogen by IARC, ACGIH, NTP, or OSHA.
Mutagenicity	Formamide: in vivo tests showed mutagenic effects
Reproductive effects	Formamide: Reproductive toxicity – rat – oral; may cause reproductive disorders.
Developmental effects	Formamide: Developmental toxicity – rat – skin; may cause congenital malformation in the fetus, presumed human reproductive toxicant
Target organ effects	Formamide: Oral - May cause damage to organs through prolonged or repeated exposure. - Blood

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly

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investigated at product concentrations.

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12. Ecological Information

Ecotoxicity	Formamide: Toxicity to fish LC50 - <i>Leuciscus idus</i> (Golden orfe) - 6569 mg/l - 96 h Toxicity to daphnia and other aquatic invertebrates EC50 - <i>Daphnia magna</i> (Water flea) - > 500 mg/l - 48 h Toxicity to algae - <i>Desmodesmus subspicatus</i> (green algae) – statis test EC50 >500 mg/l - 72 h Toxicity to bacteria - Respiration inhibition EC50 - Sludge Treatment - > 1,000 mg/l - 30 min
Persistence and degradability	Formamide: aerobic - Exposure time 28 d Result: 99 % - Readily biodegradable
Bioaccumulation/accumulation	No data available
Mobility in environmental media	No data available
Other hazardous effects	No data available

13. Disposal Considerations

Product	Disposal should be in accordance with applicable national, state, and local laws and regulations. Local regulations may be more stringent than national or state requirements. Verify local and state regulations before discharging into public sewers or landfills. Do not dump into any body of water. Contact a licensed professional waste disposal service for appropriate methods of disposal.
Contaminated packaging	Dispose of as unused product.

14. Transportation Information

Proper shipping name	Not applicable
Technical name	Not applicable
Hazard class	Not applicable
Identification number	Not applicable
Packing group	Not applicable
DOT (US)	Not applicable
IMDG	Not applicable
IATA	Not applicable
TDG	Not applicable

15. Regulatory Information

Inventory Status

United States (TSCA)	All ingredients are on the inventory or exempt from listing.
Canada (DSL / NDSL)	All ingredients are on the inventory or exempt from listing.
SARA 302 Components	No chemicals in this product are subject to reporting requirements.

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SARA 313 Components No chemicals in this product are subject to reporting requirements.

SARA 311/312 Hazards Acute health hazard, Chronic health hazard

California Prop. 65 components This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

16. Other Information

Sources and Suitability The above information was obtained from sources available at the time of revision and believed to be accurate and reliable. The information included is not intended to be all inclusive and should only be used as a guide. Biocare shall not be held liable for any damage resulting from use, handling, or contact with the above product.

Revision Date April 5, 2017
(All SDS's before this date should be discarded.)

Replaces Revision August 11, 2016. This SDS has been updated to reflect current hazard information and product formulations.

Note: Before using this product, please visit the Biocare Medical website at <http://biocare.net> for the current version of this SDS