



**MATERIAL SAFETY DATA SHEET**

Product name: Poseidon Hybridization Buffers

Revision number: 2.0

Date of revision: 2008, February 25

**I. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING**

**Identification of the product**

Product code:      Product name:  
LK-087 (A)      Paraffin Hybridization Buffer  
LK-084 (B)      Cell Hybridization Buffer  
LK-086 (A)      Whole Hybridization Buffer  
LK-090 (A)      Paraffin Tissue hybridization Buffer  
LK-094 (B)      FISH Hybridization Buffer

**Produced and marketed by**

KREATECH Biotechnology B.V.  
Vlierweg 20, 1032 LG Amsterdam, the Netherlands  
P.O. Box 37078, 1030 AB Amsterdam, the Netherlands  
Tel. +31 20 691 9181 Fax +31 20 696 3531  
**Emergency information:**  
Tel. +31 20 691 9181 Fax +31 20 696 3531  
Mail: info @ kreatech.com

**Part of product(s):**

LK-087 (A):      FLK-001/007 series  
LK-084 (B):      FLK-001/007 series  
LK-086 (A):      KBI-WCB and KBI-30001/30024 series  
LK-090 (A):      KBI-PTB and KBI-10700 series  
LK-094 (B):      KBI-FHB and KBI-10100/10600, KBI-40000 and KBI-20000 series.

**Intended use**

For use in Fluorescent In Situ Hybridization (FISH)

**II. COMPOSITION / INFORMATION ON COMPONENTS**

**Composition/information on ingredients**

<i>Name</i>	<i>CAS number</i>	<i>Range % Volume / Volume</i>
Deionized formamid	75-12-7	20-40
Dextran sulfate	9011-18-1	5-30
<u>20 x SSC</u>		2-20
Sodium Chloride	7647-14-5	
Tri-sodium citrate dihydrate	6132-04-3	
Water	7732-18-5	balance

**III. IDENTIFICATION OF HAZARDS**

**Acute effects:**

Potentially harmful by inhalation, ingestion or skin absorption. Irritating on contact with skin, eyes or mucous membranes. Inhalation may irritate nasal and respiratory passages.

**Chronic effects:**

Formamide may cause harm to the unborn child

**IV. FIRST AID MEASURES**

<b>EXPOSURE</b>	<b>SYMPTOMS</b>	<b>FIRST AID MEASURES</b>
Inhalation	No data available.	If feeling unwell move individual to fresh air and seek medical advice.
Eye contact	No data available.	Flush with copious amounts of water with the eyelid held wide open.

		Seek medical advice.
Skin contact	No data available.	Wash with copious amounts of water. Remove contaminated clothing.
Ingestion	No data available.	Seek immediately medical advice.

#### V. FIRE FIGHTING MEASURES

- **Suitable extinguishing media:**  
Water spray, carbon dioxide, dry chemical powder or appropriate foam.
- **Special fire fighting procedure:**  
Wear self contained breathing apparatus and protective clothing to prevent contact with eyes and skin.
- **Hazardous combustion or decomposition products:**  
The development of combustion gases or vapors is possible in the event of fire. The following may than develop: nitrogen oxides, carbon oxides, hydrogen, hydrochloric acid and formic acid.
- **Fire and explosion hazards:**  
Slightly flammable to flammable in presence of open flames and sparks. Produces toxic fumes on thermal decomposition.

#### VI. MEASURES TO BE TAKEN AFTER ACCIDENTIAL RELEASE OF THE SUBSTANCE/PREPARATION

Use appropriate protective equipment and methods to clean spilled substance promptly. In case of a small spill dilute with water and mop up, or absorb spill with an inert dry material. In case of a large spill absorb with an inert material. Collect and dispose of all waste in accordance with applicable laws.

#### VII. INFORMATION ON HANDLING, STORAGE, TRANSPORT AND DISPOSAL CONSIDERATIONS

- **Handling information**  
Store closed at 2-6 °C in the dark when not in use. We recommend that this product is handled only by those persons who have been trained in laboratory techniques and that it is used in accordance with the principles of good laboratory practice. As all chemical substances should be considered as potentially hazardous, wear suitable protective clothing such as a lab coat, safety glasses and gloves when handling fluid. Preferably handle in a chemical fume hood.
- **Stability**  
The product is stable when stored under the recommended conditions.
- **Reactivity**  
No reaction with water.
- **Storage information**  
Store closed in the dark at 2-6°C.
- **Transport information**  
This product is not subject to current regulations for transportation of hazardous goods.
- **Disposal considerations**  
Product: chemical residues generally count as special waste. The disposal of the latter is regulated in the EC member countries through corresponding laws and regulations. Consult either the local, state or national authorities in charge or approved waste disposal companies, for advice on how to dispose of special waste.

Packaging: disposal in accordance with local provisions. Contaminated packages should be treated the same as the product itself.

## VIII. PERSONAL PRECAUTIONS AND PROTECTION

### ▪ **Personal precautions**

Follow safe laboratory practices; the usual precautions, taken when handling chemicals, should be observed. We recommend that this product is handled only by those persons who have been trained in laboratory techniques and that it is used in accordance with the principles of good laboratory practice. As all chemical substances should be considered as potentially hazardous, wear suitable protective clothing such as a lab coat, safety glasses and gloves when handling fluid.

Do not inhale vapours; do not get in eyes, on skin or on clothing. Wash hands thoroughly after handling.

Eye wash stations and deluge showers should be available

### ▪ **Personal protection**

Respiratory protection: required when vapours/aerosols are generated. Preferably work in a chemical fume hood or wear adequate mask with filter (according to DIN 3181 for vapours of organic compounds).

Skin protection: required; wear suitable protective clothing and gloves.

Eye protection: required; wear safety glasses or goggles.

## IX. PHYSICAL AND CHEMICAL PROPERTIES

- |   |   |
|---|---|
| ▪ <b>Appearance:</b>  | liquid, colorless   |
| ▪ <b>Odour:</b>   | odorless  |
| ▪ <b>Other parameters with regard to health, safety and environment</b> |   |
| pH:   | 7.5 – 8.5 (20 °C)   |
| Viscosity <sub>dynamic</sub> (20°C):                                    | no data available   |
| Boiling range:  | no data available   |
| Melting range:  | no data available   |
| Autoflammability:   | no data available   |
| Flashing point:   | no data available   |
| Explosion limits:   | no data available   |
| Relative density:   | no data available   |
| Solubility in water:  | Formamid is completely soluble in water. One gram sodium chloride dissolves in 2.7 ml water at 25°C. Tri-sodium citrate is soluble in 1.3 parts of water. |
| Solubility in ethanol:  | not tested  |
| Solubility in fat   | not tested  |
| log P(o/w):   | no data available   |

## X. STABILITY AND REACTIVITY

The product is stable when stored under the recommended conditions

- **Conditions to avoid:** Excess heat, protect from light.

- **Substances to avoid:** Incompatible with strong oxidizing agents; strong reducing agents; strong acids and strong bases.
- **Dangerous Products of Decomposition:** No data available

#### XI. TOXICOLOGICAL INFORMATION

- **Effect of decomposition products:** no data available.
- **Potential Hazards:** Potential harmful by inhalation, ingestion or skin; toxic; irritating to eyes; possible risk of harm to the unborn child; potential mutagenic
- **Carcinogenicity:** no data available; not listed by NTP, IARC or OSHA
- **Chronic effects:** no data available

#### XII. ECOLOGIC INFORMATION

- **Ecotoxic effects:** when led in properly, no impairments in the function of adapted biological waste-water-treatment plants are to be expected. Do not allow product reach ground water, water course or sewage system.
- **Biologic persistence / degradation:** no data available.
- **Mobility:** no data available; do not allow product to reach ground water course or sewage system.
- **Behaviour in environment:** no data available.

#### XIII. DISPOSAL CONSIDERATIONS

Product: chemical residues generally count as special waste. The disposal of the latter is regulated in the EC member countries through corresponding laws and regulations. Consult either the local, state or national authorities in charge or approved waste disposal companies, for advice on how to dispose of special waste. This compound contains heavy metal.

Packaging: disposal in accordance with local provisions. Contaminated packages should be treated the same as the product itself.

#### XIV. TRANSPORT INFORMATION

Not subject to transport regulations

#### XV. REGULATIONS

- **Einecs / Elincs number:** not identified
- **Other Country Regulations:** none identified

## XVI. OTHER INFORMATION

### EEC Risk statements:

- **R20/21/22:** harmful by inhalation, in contact with skin and if swallowed
- **R36/37/38:** irritating to eyes, respiratory system and skin
- **R61:** may cause harm to the unborn child
  
- **S20/21:** when using do not eat, drink or smoke
- **S24/25:** avoid contact with eyes and skin
- **S29/56:** do not empty into drains, dispose of this material and its container at hazardous or special waste collection point
- **S36/37/39:** wear suitable protective clothing, gloves and eye/face protection

*The information contained herein is based on the present state of our knowledge. It characterizes the product with regard to the appropriate safety precautions. It does not represent a guarantee of the properties of the product. We make no warranty express or implied, with respect to the information and assume no liability. Product users should determine the suitability of this information for their own uses.*