

**MATERIAL SAFETY DATA SHEET**

Product name: Poseidon Pretreatment kit
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:
KBI 60001 Poseidon Tissue Pretreatment kit
KBI 60002 Poseidon FISH kit
KBI 60003 Poseidon FISH & Digestion kit

Produced and marketed by

KREATECH Biotechnology B.V.
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Intended use

Pretreatment of slides for Fluorescent In Situ
Hybridization (FISH)

Emergency information:

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II. COMPOSITION / INFORMATION ON COMPONENTS**Composition/information on ingredients**

Component	Cat code	CAS number	Range % by ^{weight}/volume
<u>Pretreatment Powder</u>	<u>LK-064A</u>		
Sodium Thiocyanate		540-72-7	98-102
<u>2 M Hydrochloric acid</u>	<u>LK-068A</u>		
Hydrochloric acid		7647-01-0	7-8
Water		7732-18-5	>90
<u>0.1 M Hydrochloric acid</u>	<u>LK-070A</u>		
Hydrochloric acid		7647-01-0	0.3-0.4
Water		7732-18-5	>95
<u>20 x SSC</u>	<u>LK-061A</u>		
Sodium Citrate		68-04-2	9
Sodium Chloride		7647-14-5	18
Water		7732-18-5	>75
<u>Protease</u>	<u>LK-065A/B</u>		
Pepsin		9001-75-6	100
<u>Post-Wash-Buffer I</u>	<u>LK-062A</u>		
Sodium Chloride		7647-14-5	3
Sodium Citrate		68-04-2	2
NP-40		9036-19-5	0.3
Water		7732-18-5	>90
<u>Wash-Buffer II</u>	<u>LK-063A</u>		
Sodium Chloride		7647-14-5	9
Sodium Citrate		68-04-2	18
NP-40		9036-19-5	0.1
Water		7732-18-5	>80

<u>Antifade + DAPI Counterstain</u>	<u>LK-067A/093A/066A</u>		
Aliphatic tertiary name		N/A	>1-5
Dihydrogen potassium phosphate		7778-77-0	>0-1
Disodium hydrogen phosphate		7588-79-4	>0-1
Glycerol		56-81-5	85-95
Sodium chloride		7647-14-5	>0-1
4,6,-diamidino-2-phenylindole dihydrochloride		28718-90-3	<0.0001
Water		7732-18-5	balance
<u>Igepal</u>	<u>LK-069A</u>		
Ethoxylated Octylphenol, Branched		68987-90-6	>99.5
Ethylene oxide		75-21-8	<0.0025
Dioxane		123-91-1	<0.0020
Water		7732-18-5	<0.5

III. IDENTIFICATION OF HAZARDS

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

IV. FIRST AID MEASURES

EXPOSURE	SYMPTOMS	FIRST AID MEASURES
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. Seek medical advice.
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**
Not determined
- **Fire and explosion hazards**
None identified.

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**

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**

Sodium Thiocyanate:	2-25 °C
2 M /0.1M Hydrochloric acid	2-25 °C
20 x SSC	2-25 °C
Protease	2- 6 °C
Post-Wash-Buffer I	2-25 °C
Wash-Buffer II	2-25 °C
Antifade + DAPI	2-6 °C in the dark
Igepal	2-49°C

▪ **Transport information**

The 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 the 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

▪ **Appearance and odor**

<u>Sodium Thiocyanate:</u>	White, powder
<u>2 M/0.1M Hydrochloric acid:</u>	Colorless, liquid, odorless
<u>20 x SSC:</u>	Colorless, liquid, odorless
<u>Protease:</u>	Yellowish-white, powder
<u>Post-Wash-Buffer I:</u>	Colorless (2-25 °C), whitish (when heated), can form two layers, mix well before use, liquid, odorless
<u>Post-Wash-Buffer II</u>	Colorless, can form two layers, mix well before use, liquid, odorless
<u>Antifade + DAPI</u>	Clear, odorless, liquid
<u>Igepal</u>	Pale yellow viscous liquid, aromatic odor

▪ **Other parameters with regard to health, safety and environment**

pH:	Not determined
Viscosity _{dynamic} (20°C):	Not determined
Boiling range:	Not determined
Melting range:	Not determined
Autoflammability:	Not determined
Flashing point:	Not determined
Explosion limits:	Not determined
Relative density:	Not determined
Solubility in water:	Not determined
Solubility in ethanol:	Not determined
Solubility in fat:	Not determined
log P(o/w):	Not determined

X. STABILITY AND REACTIVITY

The product is stable when stored under the recommended conditions

- **Conditions to avoid:** heat, open flame, spark.
- **Substances to avoid:** Strong oxidizing or strong reducing agents
- **Dangerous Products of Decomposition:** No data available

XI. TOXICOLOGICAL INFORMATION

- **Effect of decomposition products:** No data available.
- **Potential Hazards:** Harmful by inhalation or ingestion; irritating to eyes; skin; mucous membranes; nasal and respiratory passages.
- **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

- **Hazard Class:** not determined
- **UN Identification number:** not determined
- **Packing Group** not classified
- **Proper Shipping Name (Technical Name)** not determined

XV. REGULATIONS

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

XVI. OTHER INFORMATION

EEC Risk statements:

- **R20/22:** harmful by inhalation and if swallowed
- **R36/37/38:** irritating to eyes, respiratory system and skin

- **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.