

# SAFETY DATA SHEET

Information form for chemicals data According to EC Directive 1907/2006/EC

## CytoneI<sup>®</sup>-19 Ultrarapid IHC™



Processing date 28<sup>th</sup> July 2011

### 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

#### 1.1. PRODUCT INFORMATION

**PRODUCT NAME:** CytoneI<sup>®</sup>-19 Ultrarapid IHC kit™  
**COMPANY PRODUCT CODE (REF):** CN19-100 / CN19-20 / CN19-20D

**Kit component 1:** Peroxidase blocker (yellow label identifier)

**Kit component 2:** Peroxidase-conjugated cytokeratin-19 antibody (blue label identifier)

**Kit component 3:** Diaminobenzidine chromogen (red label identifier and red cap)

**Kit component 4:** Diaminobenzidine diluent (Purple label identifier)

**Kit component 5:** PBS-tween buffer tablet (wrapped in transparent plastic)

**Kit component 6:** Negative control antibody (green label identifier)

#### 1.2. RELEVANT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND USES ADVISED AGAINST

**INTENDED USE:** Professional laboratory use

#### 1.3. DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

**MANUFACTURING COMPANY:** Jilab Inc  
Biokatu 6  
FI-33520 Tampere  
Finland

**E-MAIL:** jilab@jilab.fi  
**TELEPHONE:** +358 3 364 2110  
**TELEFAX:** +358 3 364 2110  
**FINNISH BUSINESS ID** VAT number : FI18058489

#### 1.4. EMERGENCY TELEPHONE NUMBER

**IN CASE OF EMERGENCIES:** 112 (in Finland)

**CENTRE FOR DETOXIFICATION:**  
in Finland  
Available 24 hrs  
tel. +358 (0)9 471 977 (direct) or +358 (0)9 4711 (switch)

### 2. HAZARDS IDENTIFICATION

#### 2.1. CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

CLASSIFICATION:

Kit component 1: Peroxidase blocker

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Very toxic

Kit component 2: Peroxidase-conjugated cytokeratin-19 antibody

Not Classified

Kit componen 3: Diaminobenzidine chromogen

Harmful

Kit component 4: Diaminobenzidine diluent

Not Classified

Kit component 5: PBS-tween buffer tablet

Not Classified

Kit component 6: Negative control antibody

Not Classified

### 2.2 LABEL ELEMENTS

#### WARNINGS:

Kit component 1: Peroxidase blocker

##### R-phrases

R28 Very toxic if swallowed

R32 Contact with acids liberates very toxic gas

R50 Very toxic to aquatic organisms

R53 May cause long-term adverse effects in the aquatic environment

##### S-phrases

S1/2 Keep locked up, Keep out of the reach of children

S28 After contact with skin, wash immediately with plenty of water

S45 In case of accident or if you feel unwell seek medical advice immediately (show the label where possible)

S61 Avoid release to the environment. Refer to special instructions/safety data sheet .

Kit component 2: Peroxidase-conjugated cytokeratin-19 antibody

Not classified

Kit component 3: Diaminobenzidine chromogen

##### R phrases

R20 Harmful by inhalation

R21 Harmful in contact with skin

R22 Harmful if swallowed

R40 Limited evidence of a carcinogenic effect

##### S-phrases

S36 Wear suitable protective clothing

S37 Wear suitable gloves

S45 In case of accident or if you feel unwell seek medical advice immediately (show the label where possible)

S60 This material and its container must be disposed of as hazardous waste

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Kit component 4: Diaminobenzidine diluent

Not classified

Kit component 5: PBS-tween buffer tablet

R phrases  
R36 Irritating to eyes  
R37 Irritating to respiratory system  
R38 Irritating to skin

Kit component 6: Negative control antibody

Not classified

### 2.3 OTHER HAZARDS

NOTE:

DIAMINOENZIDINE IS CONSIDERED A POSSIBLE CARCINOGEN.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### COMPONENTS

#### Kit component 1. Peroxidase blocker

**Ingredients:** Sodium azide

CAS Number: 26628-22-8

Concentration as part of peroxidase blocker 2 % BY WEIGHT.

NOTE. Sodium azide working solution as peroxidase blocker 0.01 % BY WEIGHT (proprietary aqueous buffer)

**Labelling:**



#### Kit component 2. Peroxidase-conjugated cytokeratin-19 antibody

**Ingredients:**

Peroxidase-conjugated cytokeratin-19 antibody in proprietary aqueous buffer

**Labelling: not required**

#### Kit component 3. Diaminobenzidine chromogen

**Ingredients:** Diaminobenzidine (DAB)

CAS Number: 91-95-2

Concentration as part of solution 0.65 % BY WEIGHT

**Labelling:**



Kit component 4. Diaminobenzidine diluent

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**Ingredients:** Diaminobenzidine working solution diluent (proprietary aqueous buffer)

**Labelling:** not required

### Kit component 5. PBS-tween buffer tablet

**Ingredients:** PBS (phosphate buffered saline)-tween20 (polyoxyethylene (20) sorbitan monolaurate) tablet to be dissolved in dH<sub>2</sub>O prior to use.

**Labelling:** not required

### Kit component 6. Negative control antibody

**Ingredients:** Negative control antibody (proprietary aqueous buffer)

**Labelling:** not required

## 4. FIRST AID MEASURES

### EMERGENCY AND FIRST AID PROCEDURES

**INHALATION:** If inhaled, remove victim to fresh air, seek medical advice.

**SKIN CONTACT:** Wash affected skin area thoroughly with water or use a shower.

**EYE CONTACT:** Irrigate eyes for at least 15 minutes, seek medical advice.

**INGESTION:** If accidentally swallowed obtain immediate medical attention.

Instructions for physician: Symptomatic treatment by a physician.

## 5. FIRE FIGHTING MEASURES

**EXTINGUISHING MEDIA:** No restriction

**SPECIAL FIREFIGHTING PROCEDURES:** Use respirator. Toxic gases can be evolved: carbon monoxide, carbon dioxide, nitrogen oxides, hydrogen chloride gas.

**UNUSUAL FIRE AND EXPLOSION HAZARDS:** None

## 6. ACCIDENTAL RELEASE MEASURES

### 6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

Avoid inhalation of spray mist and fumes. Avoid contact with skin and eyes. Use protective gloves, goggles and suitable protective clothing. For personal protection, see section 8.

### 6.2 ENVIRONMENTAL PRECAUTIONS

Do not allow the kit components 1 and 3 to enter drains, sewers or watercourses.

### 6.3 METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP

Actions to be taken on spillage: Wash of small quantities with plenty of water. Absorb larger quantities of spilled substance with fluid binders and dispose of suitably. Do not contaminate water sources or sewer. Dispose in accordance with local regulations.

### 6.4 REFERENCE TO OTHER SECTIONS

Wear protective clothing as described in Section 8 of this safety data sheet.

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### 7. HANDLING AND STORAGE

#### 7.1 PRECAUTIONS FOR SAFE HANDLING

Avoid spilling, skin and eye contact. Good personal hygiene is necessary. Wash hands and contaminated areas with water and soap immediately after accidental spilling. Change clothing after spilling to prevent any possibility of skin contact. Use only with adequate ventilation.

#### 7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

Store kit components in refrigerator at +2 ..+8 °C.

#### 7.3 SPECIFIC END USE(S)

The identified uses for this product are detailed in Section 1.2.

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### 8.2 CONTROL PARAMETERS

Not classified

#### 8.3 EXPOSURE CONTROL

##### Personal protective equipment

Respiratory protection: No specific recommendation made, but respiratory protection must be used if the general level exceeds the recommended occupational exposure limit. Provide adequate ventilation.

Eye protection: Wear safety goggles or face shield if risk of splashing. Provide eyewash station.

Hand protection: Use suitable protective gloves. Be aware that the liquid may penetrate the gloves. Frequent change is advisable.

Skin protection: Lab coat. Wear appropriate clothing to prevent any possibility of skin contact.

Hygiene measures: Wash hands before breaks and at the end of workday.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

#### 9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES:

##### Kit Component 1.

APPEARANCE Colourless liquid

MISCIBILITY WITH WATER completely miscible

##### Kit component 2.

APPEARANCE Colourless liquid

MISCIBILITY WITH WATER completely miscible

##### Kit Component 3.

APPEARANCE Purple liquid

MISCIBILITY WITH WATER completely miscible

##### Kit component 4.

APPEARANCE Colourless liquid

MISCIBILITY WITH WATER completely miscible

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### Kit component 5.

APPEARANCE Hard white tablet

MISCIBILITY WITH WATER completely miscible

### Kit component 6.

APPEARANCE Colourless liquid

MISCIBILITY WITH WATER completely miscible

## 9.2 OTHER INFORMATION

Not classified

## 10. STABILITY AND REACTIVITY

There are no known reactivity hazards associated with this product and its components.

### Kit component 1:

**REACTIVITY** There are no known reactivity hazards associated with this product

**CHEMICAL STABILITY** Stable in appropriate use

**POSSIBILITY OF HAZARDOUS REACTIONS** Not determined

**CONDITIONS TO AVOID** Avoid exposure to high temperatures or direct sunlight

**INCOMPATIBLE MATERIALS** Materials to avoid: Lead and Copper

**HAZARDOUS POLYMERIZATION** Will not occur

**HAZARDOUS DECOMPOSITION PRODUCTS** Carbon monoxide, carbon dioxide, nitrogen oxides.

### Kit component 2:

**REACTIVITY** There are no known reactivity hazards associated with this product

**CHEMICAL STABILITY** Stable in appropriate use until expiry date when stored appropriately

**POSSIBILITY OF HAZARDOUS REACTIONS** Not determined

**CONDITIONS TO AVOID** Avoid exposure to temperatures outside the defined product storage temperature.

Avoid exposure to direct sunlight

**INCOMPATIBLE MATERIALS** Not classified

**HAZARDOUS POLYMERIZATION** Will not occur

**HAZARDOUS DECOMPOSITION PRODUCTS** Not classified

### Kit component 3:

**REACTIVITY** There are no known reactivity hazards associated with this product

**CHEMICAL STABILITY** Stable under normal temperature conditions

**POSSIBILITY OF HAZARDOUS REACTIONS** Not determined

**CONDITIONS TO AVOID** Avoid exposure to high temperatures or direct sunlight

**INCOMPATIBLE MATERIALS** Materials to avoid: Strong alkalis

**HAZARDOUS POLYMERIZATION** Will not occur

**HAZARDOUS DECOMPOSITION PRODUCTS** None under normal conditions

### Kit component 4.

**REACTIVITY** There are no known reactivity hazards associated with this product

**CHEMICAL STABILITY** Stable in appropriate use

**POSSIBILITY OF HAZARDOUS REACTIONS** Not determined

**CONDITIONS TO AVOID** Avoid exposure to high temperatures or direct sunlight

**INCOMPATIBLE MATERIALS** Not classified

**HAZARDOUS POLYMERIZATION** Will not occur

**HAZARDOUS DECOMPOSITION PRODUCTS** None under normal conditions

### Kit component 5.

**REACTIVITY** There are no known reactivity hazards associated with this product

**CHEMICAL STABILITY** Stable in appropriate use

**POSSIBILITY OF HAZARDOUS REACTIONS** Not determined

**CONDITIONS TO AVOID** Avoid exposure to high temperatures or direct sunlight

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**INCOMPATIBLE MATERIALS** Not classified  
**HAZARDOUS POLYMERIZATION** Will not occur  
**HAZARDOUS DECOMPOSITION PRODUCTS** None under normal conditions

**Kit component 6.**

**REACTIVITY** There are no known reactivity hazards associated with this product

**CHEMICAL STABILITY** Stable in appropriate use

**POSSIBILITY OF HAZARDOUS REACTIONS** Not determined

**CONDITIONS TO AVOID** Avoid exposure to high temperatures or direct sunlight

**INCOMPATIBLE MATERIALS** Not classified

**HAZARDOUS POLYMERIZATION** Will not occur

**HAZARDOUS DECOMPOSITION PRODUCTS** None under normal conditions

### 11. TOXICOLOGICAL INFORMATION

**Kit component 1:**

Contains 2 % BY WEIGHT solution ingredient (sodium azide)

CAS# 26628-22-8: LD50, oral, rat: 27 mg/kg

**Kit component 2: Non-toxic**

**Kit component 3:**

Contains 0.65 % BY WEIGHT solution ingredient (diaminobenzidine)

CAS# 7411-49-6:

ipr-mus LD50: 330 mg/kg

oral-mus LD50: 1.834 mg/kg

**Kit component 4. Non-toxic**

**Kit component 5. Non-toxic**

**Kit component 6. Non-toxic**

### 12. ECOLOGICAL INFORMATION

Data not yet available

### 13. DISPOSAL CONSIDERATIONS

Dispose of empty packaging via local recycling or waste disposal routes – if necessary, clean them beforehand.

Dispose of used kit components: Generally disposed off as problem waste; disposal as waste water only in accordance with local regulations.

### 14. TRANSPORT INFORMATION

General

**The product is not covered by international regulation on the transport of dangerous goods (IMDG, IATA, ADR/RID).**

Road Transport Notes: Not Classified

Rail Transport Notes: Not classified.

Sea Transport Notes: Not classified.

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Air Transport Notes: Not classified.

- 14.1. UN number: Not applicable.
- 14.2 UN Proper shipping name: Not applicable.
- 14.3 Transport hazard class(es): Not applicable.
- 14.4. Packing group: Not applicable.
- 14.5. Environmental hazards: Not applicable.
- 14.6. Special precautions for user: None.
- 14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: Not applicable.

## 15. REGULATORY INFORMATION

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

This Material Safety data sheet complies with Regulation (EC) No 1907/2006.

### 15.2 Chemical Safety Assessment

No Chemical safety assessment has been carried out.

## 16. OTHER INFORMATION

### Further information

Only trained laboratory personnel should use this material and the related product.

The information contained in this Material Safety Data Sheet is believed to be accurate but it is the responsibility of the user to determine the applicability of these data to the formulation of necessary safety precautions. Jilab 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. The information shall not be taken as being all inclusive and is to be used only as a guide. The recipient of our product or any other third party related to product use or handling is responsible for ensuring that, where applicable, existing laws and guidelines are observed.

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----- End of Material Safety Data Sheet (last modified 28-7-2011)