Knowledge Dock Business Centre, Docklands Campus, University Way, London, E16 2RD, United Kingdom W: stjohnslabs.com T: +44 (0)208 223 3081 E: info@stjohnslabs.com

## **MATERIAL SAFETY DATA SHEET**

## **SECTION 1: PRODUCT AND COMPANY IDENTIFICATION**

1.1 Product Identification	STJE0016886	
1.2. Relevant identified uses of the substance or mixture and uses advised against  This kit is composed of mixtures and substances which must only be together under the guidelines of the kit protocol. This kit is intended purposes of scientific research use only. It must not be used in diagnother medical procedures.		
1.3. Details of the supplier of the safety data sheet	St John's Laboratory Ltd , Knowledge Dock Business Centre, Docklands Campus,  University Way, London, E16 2RD, United Kingdom  Tel: 0208 223 3081  Email: info@stjohnslabs.com	
1.4 Emergency Phone	UK - Call 111 if you urgently need medical assistance or advice if in a non-life-threatening situation. 111 is available 24 hours a day, 365 days a year.  USA – Emergency services – Dial 911  EU – Emergency services – Dial 112  ROW – Please seek assistance from local country services.	

#### **SECTION 2: HAZARDS SUMMARY**

Emergency summary	Excessive exposure may require use of first aid kit and medical follow-up.		
	Stop Solution – WARNING		
GHS Hazard Classification			

All other components - Not hazardous substances or mixtures according to the Globally Harmonised System of Classification and Labelling Chemicals (GHS).

# SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Component	Physical Form	Ingredient	Concentration	CAS No.	EC No.
Microwells	Plastic non-	-	-	-	-
	reactive wells				
Detection Solution A	Odourless and	Detection antibody	-	-	-
	Colourless, liquid	TBS	-	-	-
		BSA	1%	9048-46-8	-
Detection Solution B	Odourless and	HRP-linked Avidin	-	-	-
	Colourless, liquid	TBS	-	-	-
		BSA	1%	9048-46-8	-
30X Wash Buffer	Odourless and	TBS	-	-	-
	Colourless, liquid				
TMB Substrate	Liquid	3,3',5,5'	0.05%	54827-17-7	-
		Tetramethylbenzidine			
Stop Solution	Odourless and	Sulphuric acid	1 mol/L	7664-93-9	231-639-5
	colourless, liquid	(H <sub>2</sub> SO4)			
Reference Standard	White lyophilized	-	-	-	-
	powder				
Standard Diluent	Odourless and	BSA	1%	9048-46-8	-
	Colourless, liquid	TBS	-	-	-
		Proclin-300	0.025%	96118-96-6	911-418-6

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#### SECTION: 4 FIRST-AID MEASURES

#### 4.1 General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

#### 4.2 If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

#### 4.3 In case of skin contact

Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.

## 4.4 In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes • Avoid inhalation. and consult a physician.

#### 4.5 If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

#### SECTION 5 FIRE FIGHTING MEASURES

## 5.1 Suitable extinguishing media

Water spray, alcohol-resistant foam, dry chemical, carbon dioxide or appropriate foam. For small fires, use media such 7.2 Storage as "alcohol" foam, dry chemical or carbon dioxide. For large fires, apply water from as far as possible. Use large quantities of water applied as a mist or spray. Solid streams • Keep away from heat, sparks and flame. of water may be ineffective. Cool affected containers with flooding quantities of water.

## 5.2 Special precautions for fire-fighters

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

## 5.3 Special hazards arising from the substance or mixture

Carbon oxides, Nitrogen oxides (NOx), Sulphur oxides, Hydrogen chloride gas.

## **SECTION 6 ACCIDENTAL RELEASE MEASURES**

## 6.1 Person-related safety precautions

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

## 6.2 Measures for environmental protection

Prevent further leakage or spillage if safe to do so. Do not let enter drains. Discharge into the environment must be avoided.

## 6.3 Measures for containment and cleaning

Contain spillage, and then collect with non-combustible absorbent material (eg. sand, diatomaceous earth, vermiculite). Place in a container for disposal according to local regulations. Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal. Sweep up and shovel. Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). Keep in suitable, closed containers for disposal.

#### **SECTION 7 HANDLING AND STORAGE**

#### 7.1 Handling

- Wear appropriate protective clothing and safety gloves.
- · Avoid contact with eyes, skin and clothing.
- · Mechanical exhaust required.
- Keep away from ignition sources, heat and flame.
- · No smoking at working site.
- Incompatibilities: Strong oxidizing agents, Strong acids. Handling and unloading should be light, to prevent packaging broken, damp and cause losses.
- Working place should be equipped with appropriate varieties and quantities of firefighting equipment and leakage emergency treatment equipment.

- Store in cool place. Keep container tightly closed in a dry and well-ventilated place.
- Keep away from sources of ignition.
- Incompatible: Strong oxidizing agents, Strong acids.
- Storage place should be equipped with appropriate varieties and quantities of firefighting equipment and leakage emergency treatment equipment.

## **SECTION 8 EXPOSURE CONTROL/PPE**

Name	Occupational exposure limits (EH40/2005 WEL, UK)	
ProClin-300	-	
Sulphuric acid	TWA 0.05 mg/m3 Form: Mist	
3,3',5,5' Tetramethylbenzidine	-	

## 8.1 Engineering Controls

Mechanical exhaust required. Safety shower and eye bath.

## Occupational exposure limits in the workplace

MAC (mg/m3)No data available PC-STEL (mg/m3) No data available TLV-TWA (mg/m3) No data available PC-TWA (mg/m3) No data available

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TLV-C (mg/m3) No data available TLV=STEL (mg/m3) No data available

#### 8.2 Personal Protective Equipment

Respiratory: Government approved respirator if needed. Eye/face: Chemical safety goggles if needed.

Clothing: Wear appropriate protective clothing.

Hand/skin: Protective gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body protection: Wear suitable protective clothing according to the concentration and amount of

the substance at the workplace.

#### 8.3 Other Protect

No smoking, drinking and eating at working site. Wash thoroughly after handling.

## **SECTION 9 PHYSICAL/CHEMIICAL PROPERTIES**

Appearance	Liquid		
Smell	Odourless		
Boiling point/boiling range	°C no data available		
Melting point/melting range °C no data availabl			
Flash Point	°C no data available		
Autoignition temperature	°C no data available		
Oxidation	No data available		
Water solubility	No data available		
Viscosity	No data available		

#### **SECTION 10 STABILITY AND REACTIVITY**

## 10.1 Reactivity

No data available

## 10.2 Chemical stability

Stable under recommended storage conditions

#### 10.3 Possibility of hazardous reactions

No data available

## 10.4 Conditions to avoid

Heat, flames and sparks

## 10.5 Incompatible materials

Strong oxidizing agent, Light sensitive, Alcohols, Organic materials, Heavy metals, Powdered metals, Strong reducing agents, Amines, Mercaptans.

## 10.6 Hazardous decomposition products

Other decomposition products: No data available Hazardous decomposition products formed under fire conditions: Carbon oxides, Nitrogen oxides (NOx), Sulphur oxides, Hydrogen chloride gas.

#### **SECTION 11 TOXICOLOGICAL INFORMATION**

Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
ProClin-300	862 mg/kg (Rat)	2,800 mg/kg (Rabbit)	4 h - 16.67 mg/l – vapor (Calculation method)
Sulphuric acid	2,140 mg/kg (Rat)	Skin - Rabbit	-
3,3',5,5' Tetramethyl	-	-	-

benzidine

Acute toxicity not considered harmful

## Other potential effects

Eyes	May cause eye irritation
Skin	May cause eye irritation
Inhalation	Harmful by inhalation
Ingestion	Swallowing may be harmful

CarcinogenesisN/AMutagenic effectN/AReproduction toxicityN/AAllergenicityN/A

Target organ No known effects

## **SECTION 12 ECOLOGICAL INFORMATION**

**Ecotoxicity** Contains no substances that are

dangerous to the environment

MobilityNo useful informationBiodegradabilityNo useful informationBiocumulativityNo useful information

Name Toxicity Toxicity to Toxicity to to algae fish daphnia and other aquatic invertebrate

ProClin-300 flow-through flowtest LC50 through test LC50 Daphnia Oncorhynch magna (Water flea) us mykiss (rainbow 0.18 trout) - 0.19 mg/I - 48 h mg/l - 96 h (US-EPA) (US-FPA) Chronic Chronic toxicity toxicity flow-through semi-static test NOEC test NOEC -Daphnia Oncorhynch

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us mykiss	(Water flea) -
(rainbow	0.1 mg/l - 21
trout) -	d (US-EPA)
0.098 mg/l -	
35 d	
(OECD Test	
Guideline	
215)	

Sulphuric	ErC50	EC50 -
acid	Desmod	Daphnia
	esmus	magna
	subspic	(Water flea) -
	atus	> 100 mg/l -
	(green	48 h
	algae) -	(OECD Test
	> 100	Guideline
	mg/l -	202)
	72 h	

3,3',5,5'

Tetramethyl benzidine

## **SECTION 13 DISPOSAL CONSIDERATION**

#### 13.1 Disposal methods

Dispose of waste in accordance to applicable national, regional, or local regulations. Burn in a chemical incinerator equipped with an afterburner and scrubber. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

## 13.2 Contaminated packaging

Dispose in the same manner as unused product.

## **SECTION 14 TRANSPORT INFORMATION**

RID/ADR: Non-Hazardous for Transport: This substance is considered non-hazardous for transport IATA: Non-Hazardous for Air Transport. IMO: Non-Hazardous for Sea Transport.

## **SECTION 15 REGULATORY INFORMATION**

This material safety data sheet complies with the requirements of Regulation (EC) No. 1272/2008 and its amendments.