

## SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Issue 4 - Revision Date 17.01.2011

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### 1. IDENTIFICATION OF PREPARATION AND OF COMPANY

**Brand name :** RED SEA**Product name :** IRON PRO TEST KIT**Product category :** AQUARIUM WATER QUALITY TEST KIT**Product code :** R21515

<b>Company :</b> Red Sea Fish Pharm Ltd Free Trade Industrial Zone Eilat 88000 Israel	Red Sea Europe ZA de la St-Denis F-27130 Verneuil s/ Avre France
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<b>Company :</b> Red Sea Aquatics PO Box 1237 Cheddar Somerset  BS279AG UK	Red Sea USA 18125 Ammi Trail Houston TX 77060 USA
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**Telephone :** Tel - 0203 3711492      Tel - 1-888-RED-SEA9**e-mail :** uk.info@redseafish.com      redseainfo@redseafish.com**Emergency No. :** As appropriate above

### 2. HAZARD IDENTIFICATION

**Classification for supply :** **Reagent A -** Not classified as being hazardous**Reagent B -** Classified as being **Corrosive**  
C, R35**Health / physical hazard :** **Reagent B -** Causes severe burns**Environmental hazard :** **None****Physico-chemical hazard :** **Reagent B -** May corrode metals and produce flammable vapours

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

	<b>Hazardous component</b>	<b>Classification</b>	<b>CAS No.</b>	<b>Conc.</b>
<b>Reagent B</b>	Acetic acid	C – R10, R35	64-19-7	5 – 10%
	Sodium hydroxide	C – R35	1310-73-2	1 – 5%
	Brilliant cresyl blue	Xi – R36/37/38	81029-05-2	1 – 5%
	2,2'-Bipyridyl	T – R25	366-18-7	0.1 – 1%

Classification symbol / letter and R phrases – Refer to section 16 where the full text of each relevant symbol / R phrase is listed

### 4. FIRST AID MEASURES

- General advice :** Seek medical advice and show this safety data sheet to attending medical personnel.
- Eye contact :** In case of contact with eyes, rinse immediately with plenty of flowing water for at least 15 minutes, occasionally lifting eyelids and seek medical advice.
- Skin contact :** After contact with skin, remove any contaminated clothing and wash immediately with plenty of soap and water. If any irritation occurs after this, seek medical advice. Wash contaminated clothing before re-use.
- Ingestion :** Never give anything by mouth to an unconscious person. Wash out mouth with water and obtain medical attention immediately. Do not induce vomiting, unless instructed by medical personnel.
- Inhalation :** If adverse effects (*e.g. irritation of airways, drowsiness or dizziness*) occur, remove from exposure, rest and keep warm. Seek medical advice immediately.

### 5. FIRE FIGHTING MEASURES

- Fire and explosive properties :** The reagents tend to be water based and not combustible.
- Suitable extinguishing media :** Use extinguishing media suitable to the surroundings such as, Dry Chemical Powder, Chemical Foam, Water Spray and Carbon dioxide.
- Special exposure hazards :** When heated sufficiently, product may decompose to form smoke and toxic fumes, gases or vapours that may cause dizziness. Wear approved self-contained breathing apparatus, protective clothing and prevent contact with skin and eyes. Avoid run-off water from entering drains though the use of barriers or sorbent materials.

### 6. ACCIDENTIAL RELEASE MEASURES

Appropriate to size of spillage.

- Personal precautions :** Refer to section 8 of the safety data sheet for personal protection details. Avoid contact with skin and eyes. Do not breathe any vapours and keep unauthorised personnel from the spillage area.
- Environmental precautions :** Do not allow any liquid to be washed down drains or natural water courses if safe to do so. Contact authorities, water company, and waste water treatment plant as appropriate if significant contamination occurs.

**Clean-up procedure :** In the event of spillage, clean up as soon as possible. Small spills can be mopped up with a dry cloth or paper tissue. Collect larger spills with sorbent material or mixed with sand then place in a suitable container for disposal as solid waste in accordance with local or national regulations. Wash contaminated surfaces with water. In the case of a large spill follow prescribed advice in section 6 – “Environmental Precautions” and collect washings for disposal.

## 7. HANDLING AND STORAGE

**Handling requirements :** Handle liquids carefully taking care to avoid contact with skin and eyes, and inhalation of any mists or vapours. When handling large quantities, wear personal protective equipment as described in section 8 and good general ventilation is recommended.

**Storage requirements :** Keep only in original container. Avoid large temperature changes and store in a cool, dry, well ventilated environment away from direct sunlight. Keep below 65°C. Keep containers closed when not in use.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

During normal non-professional use of the chemical kit no personal protective equipment is required. However, in case of manufacture or spillage, use as appropriate to the size of the spill.

**Exposure limit values :** Generally not applicable to the packed liquids due to small volumes of liquid being handled coupled with very short exposure times and packaging type.

Acetic acid : 8hr TWA 25mg/m<sup>3</sup> (10ppm) (Europe 91/322/EEC)

Sodium hydroxide : STEL 15min 2mg/m<sup>3</sup> (UK EH40 OEL)

**Exposure controls :** None when handling packed liquids in kit form. For large volumes, good general ventilation is recommended. Where conditions may lead to high airborne concentrations, local exhaust ventilation may be necessary to ensure that workplace exposure limits are not exceeded.

**Take measure to prevent :** Spillage, skin and eye contact, and ingestion.

**Personal protective equipment :** For professional use, the need for personal protective equipment should be based on a workplace risk assessment. Avoid skin contact by wearing chemical resistant gloves (e.g. rubber, neoprene, nitrile) and safety goggles. Where more extensive contact may occur, wear suitable protective clothing (e.g. apron, sleeves and boots). Personal protective equipment should be chosen in consultation with the manufacturer or distributor of the equipment.

**Respiratory protection :** Respiratory protection is not necessary if kit is used in accordance with manufacturer's instructions. If required, use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Where risk assessment shows air-purifying respirators are appropriate, use with multi-purpose combination (US) or type ABEK (EN14387) respirator cartridges.

**Hand protection :** Protective gloves.  
The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

**Eye protection :** Face shield and safety goggles.  
The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 166 derived from it.

**Skin and body protection :** Protective clothing; laboratory coat, apron, arm protection etc. Choose body protection according to the amount and concentration of the dangerous substance being used.

**Hygiene measures :** Handle in accordance with good hygiene and safety practices, and wash hands after use.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### REAGENT A

<b>Appearance :</b> Off white, light yellow powder	<b>Flash point (°C) :</b> Not applicable
<b>Odour :</b> None	<b>Flammability :</b> Powder is non-combustible
<b>pH :</b> 7 – 8	<b>Oxidising properties :</b> Not applicable
<b>Density :</b> Not determined	<b>Solubility (water) :</b> Completely soluble to give a neutral solution.
<b>Boiling point :</b> Not determined	<b>Other :</b>

### REAGENT B

<b>Appearance :</b> Blue liquid	<b>Flash point (°C) :</b> Unknown
<b>Odour :</b> Acrid	<b>Flammability :</b> Liquid is non-combustible
<b>pH :</b> 5 - 6	<b>Oxidising properties :</b> Not applicable
<b>Density :</b> Not determined	<b>Solubility (water) :</b> Completely soluble to give a neutral solution.
<b>Boiling point :</b> Not determined	<b>Other :</b>

## 10. STABILITY AND REACTIVITY

- Stability :** Reagents stable under recommended storage and handling conditions.
- Conditions to avoid:** Long term exposure to heat and direct sunlight.
- Materials to avoid :** Acids, alkalis, oxidising compounds and metals. May produce heat.
- Decomposition products :** Toxic fumes may be evolved on thermal decomposition.

## 11. TOXICOLOGICAL INFORMATION

The preparations / reagents have not been tested for toxicological effects. Based on the known effects of the ingredients, the product is classified for human health effects as indicated;

- Acute toxicity :** 2,2'-Bipyridyl in **Reagent B** is classified as being toxic, and if swallowed can cause muscle weakness and haemorrhages as well as affecting kidneys and the urethra which may lead to changes in the composition of urine. Also present in **Reagent B** is a compound at very low levels (<0.1%) which can cause convulsions or have an effect on a person's seizure threshold.
- Corrosivity / Irritation :** Due to the level of Acetic acid and Sodium hydroxide present in **Reagent B**, it is classified as being corrosive and will cause local damage in contact with tissue of the eyes and skin. Inhalation of spray or mist will irritate the respiratory system and ingestion will damage the linings of the mouth, throat and gastro-intestinal tract. Also present is Brilliant cresyl blue and other compounds at very low levels which would contribute to the corrosive / irritation effect of **Reagent B**.
- Sensitisation :** **Reagent B** contains a compound at very low levels (<0.1%) which may cause sensitisation by skin contact.
- Repeated-dose toxicity :** A compound present at a very low level (<0.1%) in **Reagent B** is classified as being harmful and a danger of serious damage to health by prolonged exposure if swallowed.
- Carcinogenicity / Mutagenicity / Reproductive toxicity :** Limited evidence of carcinogenic properties is shown by a compound present at a very low level (<0.1%) in **Reagent B**.

## 12. ECOLOGICAL INFORMATION

Ecotoxicological data has not been determined specifically for the preparations / reagents, but are not classified as toxic on the basis of the known hazards of components present;

**Mobility :** Though there is no specific information on the mobility of compounds in the reagents, they are soluble under normal environmental conditions in water so would also be expected to be highly mobile in soil.

**Persistence and degradability :** Compounds present in the reagents would be readily bio-degradable in the environment.

**Bioaccumulation :** No information available.

**Ecotoxicity :** A compound present at very low levels (<0.1%) in **Reagent B** has been shown to be very toxic to aquatic organisms.

## 13. DISPOSAL CONSIDERATIONS

User's attention is drawn to the possible existence of regional or national regulations regarding disposal.

**Waste residues :** Hazardous residues.

**Safe handling of waste product :** Landfill or burn in accordance with local regulations.

**Disposal of product :** According to Special Waste Regulations

EWC (European waste code) recommendation : 16 03 05

16 Wastes not otherwise specified in the lists

03 Off specification batches and unused products

05 Organic wastes containing dangerous substances

Depending on the origin and state of the waste, other EWC numbers may be applicable.

**Disposal of packaging :** According to Special Waste Regulations

EWC (European waste code) recommendation : 15 01 10

15 Waste packaging; absorbents, wiping cloths, filter materials and protective clothing not otherwise specified.

01 Packaging (including separately collected municipal waste).

10 Packaging containing residues of or contaminated by dangerous substances.

Depending on the origin and state of the waste, other EWC numbers may be applicable.

## 14. TRANSPORTATION INFORMATION

### Land transport

**RID/ADR hazard classification :** 9  
**Packing group :** II  
**UN No. :** UN 3316  
**Shipping name :** CHEMICAL KIT

### Maritime transport

**IMO – IMDG hazard class :** 9  
**Packing group :** II  
**UN No. :** UN 3316  
**Shipping name :** CHEMICAL KIT

## Air transport

**ICAO/IATA classification :** 9  
**Packing group :** II  
**UN No. :** UN 3316  
**Shipping name :** CHEMICAL KIT

## 15. REGULATORY INFORMATION

**EEC labelling information** Classified according to CHIP (Chemical Hazard information and packaging) regulations.

### IRON REAGENT A

**Hazard symbols :** Not classified

**Contains :**

**R phrase(s) :** None

**S phrase(s) :** S2 Keep locked up and out of reach of children  
S46 If swallowed seek medical advice immediately and show this container or label.

**Other regulatory information:**

### IRON REAGENT B

**Hazard symbols :** Corrosive : C 

**Contains :** Sodium hydroxide

**R phrase(s) :** R35 Causes severe burns

**S phrase(s) :** S1/2 Keep locked up and out of reach of children  
S37/39 Wear suitable gloves and eye/face protection  
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
S28 After contact with skin, wash off immediately with plenty of water  
S46 If swallowed seek medical advice immediately and show this container or label.

**Other regulatory information:**

## 16. OTHER INFORMATION

**Nature of revision :** Web site address updated and contact details changed in Section 1.

**Based on EC directive :** The classification of this product has been assessed according to the calculations given in 99/45/EC and its amendments, and regulation (EC) No.1272/2008 on classification, labelling and packaging of substances and mixtures on the basis of available information for the ingredients from supplier safety data sheets and the Existing Chemical Substances Information System found on the European Chemical Bureau website;  
<http://ecb.jrc.ec.europa.eu/esis/>.

**Relevant R phrases used in section 3 :**

T	Toxic
C	Corrosive
Xi	Irritant

R10	Flammable
R25	Toxic if swallowed
R35	Causes severe burns
R36/37/38	Irritating to eyes, respiratory system and skin

**Usage advice :** This safety data sheet is provided to enable the employer / user to fulfil his duties to assess and provide information on risks in the work place as required under regional health and safety legislation.  
Read accompanying information, use only in accordance to manufacturer's instructions.

**Recommended uses / restrictions :** To measure semi-quantitatively the Iron levels in aquarium water.

**Other information :** The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage from handling or from contact with the above product.