

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006
Issue 1 - Revision Date 19.02.2013

1. IDENTIFICATION OF PREPARATION AND OF COMPANY

Brand name : RED SEA

Product name : NITRATE/NITRIT TEST KIT

Product category : AQUARIUM FISH TREATMENT

Product code : R21465

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2. HAZARD IDENTIFICATION

Classification for supply : **Reagent A** – Classified as being **Corrosive**
C, R35

Reagent B – Classified as being **Irritant** and **Dangerous For the Environment**
Xi, Xn; R43, R51/53

Reagent C – Not classified as being hazardous

Health / physical hazard : **Reagent A** – Causes severe burns
Reagent B – May cause sensitisation by skin contact

Environmental hazard : Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Physico-chemical hazard : **Reagent A** – May corrode metals

3. COMPOSITION / INFORMATION ON INGREDIENTS

	Hazardous component	Classification	CAS No.	Conc.
Reagent A	Sulphuric acid (95-97%) ($\rho = 1.82$)	C - R35	7664-93-9	10 - 25%
Reagent B	Zinc Powder (<45 μ m) (Stabilised)	N - R50/53	7440-66-6	1 - 5%
	Sulphanilic acid	Xi - R43	121-57-3	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 are not combustible or explosive.
: However, during heating may give off flammable fumes which if sufficient quantity is present may become flammable or explosive in a confined space.
- 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 and powders 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 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 and powders due to small volumes of liquid and powders being handled coupled with very short exposure times and packaging type.

Sulphuric acid (mist) : 8hr TWA 0.05mg/m³ (UK EH40 WEL)

Exposure controls : None when handling packed liquids and powders 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

Appearance : Colourless liquid	Flash point (°C) : Not applicable
Odour : None	Flammability : Liquid is non-combustible
pH : Not determined	Oxidising properties : Not applicable
Density : Not determined	Solubility (water) : Completely soluble to give an acidic solution.
Boiling point : Not determined	Other :

REAGENT B

Appearance : Grey Powder	Flash point (°C) : Unknown
Odour : None	Flammability : Powder is non-combustible
pH : Not determined	Oxidising properties : Not applicable
Density : Not determined	Solubility (water) : Completely soluble to give a neutral solution.
Boiling point : Not determined	Other :

REAGENT C

Appearance : White powder	Flash point (°C) : Unknown
Odour : None	Flammability : Powder is non-combustible
pH : Not determined	Oxidising properties : Not applicable
Density : Not determined	Solubility (water) : Completely soluble to give a neutral solution.
Boiling point : Not determined	Other :

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, powdered metals and organic materials.
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;

Corrosivity / Irritation : **Reagent A** is classified as being corrosive due to the level of Sulphuric acid present 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.

Sensitisation : **Reagent B:** is classified as being irritant due to the level of Sulphanilic acid present and May cause sensitisation by skin contact.

Repeated-dose toxicity : No compounds present in the reagents have been identified as having sensitising properties.

Carcinogenicity / Mutagenicity / Reproductive toxicity : No compounds present in the reagents have been identified as having sensitising properties.

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 : The Zinc powder in **reagent B** is not soluble under normal environmental conditions, however processing the product or extended exposure in aquatic environment may lead to zinc compounds in bioavailable forms. In soil, zinc is moderately mobile.

Persistence and degradability : Compounds present in **reagent B** are known to be persist in the environment.

Bioaccumulation : Zinc powder in **reagent B**, can accumulate in plants and marine organisms.

Ecotoxicity : Zinc powder in **reagent B**, has been shown to be hazardous 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.

NITRATE REAGENT A

Symbol(s) required



C

Hazard statement(s)

CORROSIVE

Contents statement

Contains Sulphuric acid

Risk statements

R35 Causes severe burns

Safety statements

S1/2 Keep locked up and out of reach of children.

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

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

S37/39 Wear suitable gloves and eye/face protection.

S46 If swallowed seek medical advice immediately and show this container or label.

NITRATE REAGENT B

Symbol(s) required

Xi



N



Hazard statement(s)

IRRITANT, DANGEROUS FOR THE ENVIRONMENT

Contents statement

Contains Sulphanilic acid

Risk statements

R43 May cause sensitisation by skin contact

R51/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

Safety statements	S2	Keep locked up and out of reach of children.
	S24	Avoid contact with skin.
	S37	Wear suitable gloves.
	S46	If swallowed seek medical advice immediately and show this container or label.
	S56	Avoid release to the environment. Refer to special instructions/ safety data sheet.

NITRATE REAGENT C

Symbol(s) required	None
Hazard statement(s)	None
Contents statement	None
Risk statements	None
Safety statements	S2 Keep locked up and out of reach of children. S46 If swallowed seek medical advice immediately and show this container or label.
Symbol(s) required	None
Hazard statement(s)	None
Contents statement	None

16. OTHER INFORMATION

Nature of revision :

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 :

C	Corrosive
Xi	Irritant
N	Dangerous for the environment
R35	Causes severe burns
R43	May cause sensitisation by skin contact
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

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 Nitrate and nitrite 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.