Prepared on April 1, 2011

Materials Safety Data Sheet

1. Product and Company Identification

Product name: S-Clone SF-O3
Manufacturer's name: EIDIA Co., Ltd.
Address: 1-10-6, Iwamoto-cho, Chiyoda-ku, Tokyo, Japan
Section in charge: Quality Assurance & Regulatory
Telephone number: 03-3851-1672
Fax number: 03-3864-5644
Product code: 410043352
Serial number: SN035-06

2. Information on Composition and Ingredients

The product (kit) consists of the following three types of reagents.

(1) Basal medium

Single compound or mixture: Mixture
Hazardous components: Zinc sulfate 7-hydrate Content: 0.002 w/w%

(2) Sodium hydrogen carbonate

Single compound or mixture: Single compound
Hazardous components: None

(3) Supplement

Single compound or mixture: Mixture
Hazardous components: Sodium selenite Content: 0.00002 w/v%
Ethanol Content:0.5w/v%

[Hazardous Components]

Zinc sulfate 7-hydrate

Chemical formula: $ZnSO_4 \cdot 7H_2O$
Reference number in gazetted list in Japan: (1)-542
CAS registry number: 7446-20-0

Sodium selenite

Chemical formula:	Na_2SeO_3
Reference number in gazetted list in Japan:	(1)-507
CAS registry number:	10102-18-8

Ethanol

Chemical formula:	C_2H_5OH
Reference number in gazetted list in Japan:	(2)-202
CAS registry number:	64-17-5

Applicable laws and regulations: “Notifiable substances” in the Industrial Safety and Health Law

GHS classification

Physical hazards

Explosives: Not applicable

Flammable gases: Not applicable

Flammable aerosols: Not applicable

Oxidizing gases: Not applicable

Gases under pressure: Not applicable

Flammable liquids: Category 2

Flammable solids: Not applicable

Self-reactive substances and mixtures: Not applicable

Pyrophoric liquids: Not classified

Pyrophoric solids: Not applicable

Self-heating substances and mixtures: Not classified

Substances and mixtures which, in contact with water, emit flammable gases: Not applicable

Oxidizing liquids: Not applicable

Oxidizing solids: Not applicable

Organic peroxides: Not applicable

Corrosive to metals: Not classified

Health hazards

Acute toxicity (oral): Not classified

Acute toxicity (dermal): Classification not possible

Acute toxicity (inhalation: gases): Not applicable

Acute toxicity (inhalation: vapour): Not classified

Acute toxicity (inhalation: dust) Not applicable

Acute toxicity (inhalation: mist): Not classified

Skin corrosion/irritation: Not classified

Serious eye damage/eye irritation: Category 2A-2B

Respiratory sensitization: Classification not possible

Skin sensitization: Classification not possible

Germ cell mutagenicity: Category 1B

Carcinogenicity: Not classified

Reproductive toxicity: Category 1A

Specific target organ toxicity/systemic toxicity (single exposure): Category 3 (airway irritation, anesthetic)

Specific target organ toxicity/systemic toxicity (repeated exposure): Category 1 (liver), Category 2 (nerves)

Aspiration hazard: Classification not possible

Environmental hazards

Acute aquatic toxicity: Not classified

Chronic aquatic toxicity: Not classified

Label elements

Pictograms/symbols:

Signal word: DANGER

Hazard information:

Highly inflammable liquid and vapour

Seriously irritating to eye

Risk of genetic diseases

Risk of adverse effects in reproduction or fetus

Risk of irritation to respiratory system

May cause drowsiness and dizziness

Liver damage by long-term or repeated exposure

Risk of nerve disorder by long-term or repeated exposure

Precautionary statements:

[Safety measures]

Do not handle before reading and understanding all the safety information.Obtain manufacturer's instructions before use.

Do not eat, drink or smoke during handling the product.

Avoid ignition sources such as heat, sparks, open flames or high-temperature matters. No smoking.

Use explosion-proof electric apparatus, ventilation and lighting equipment. Prevent ignition by electrostatic discharge or sparks.

Avoid exposure by using personal protection and ventilation.

Wear protective gloves, glasses and a face shield.

Use only in the open air or a well-ventilated area.

Do not inhale mist, vapour or spray.

Wash hands well after use.

[Emergency measures]

Take appropriate fire-fighting measures in case of fire.

Inhalation: Remove to fresh air, and keep at rest in a position comfortable for breathing.

Eye contact: Wash carefully with water for a few minutes. Wash with contact lenses removed if easily possible.

Skin contact: Wash with plenty of water and soap.

Spilling on clothes: Remove all contaminated clothes immediately.

Exposure or possibility of exposure: Seek medical attention.

If eye irritation persists, seek medical attention.

If you feel unwell, seek medical attention.

[Storage]

Store with the container sealed in a locked, cool, well-ventilated place.

[Disposal]

Consign the disposal of the containers and the content to a specialized waste disposer licensed by the prefectural governor.

3. Hazards Identification

The most important hazards:

Sodium selenite is a substance with acute toxicity and is toxic.

Specific hazards:

Additives include transferrin of human origin (the material human plasma is confirmed to be negative for HIV-1/HIV-2 antibody, HCV antibody and HBs antigen) and insulin from cattle from countries where has been no report of BSE. The product should be handled with care as a potentially infectious material.

Major symptoms: No information available

4. First-aid Measures

Inhalation:	Immediately remove the affected person to fresh air. Blow nose and rinse mouth. Seek medical attention immediately.
Skin contact:	Immediately remove the contaminated clothes and shoes. Rinse the affected site with cold or warm running water.
Eye contact:	Immediately rinse the affected eye with clean water and seek medical attention. For contact-lens wearers, remove the contact lens and rinse the affected eye with clean water, except when the lens is stuck to the eye. Rinse the eye while holding the lids fully open to ensure thorough rinsing of the entire surface of the eyeball and behind the lids.
Ingestion:	Give plenty of water or salt water and induce vomiting. Immediately seek medical attention.

5. Firefighting Measures

Extinguishing media:	Foam, dry powder, carbon dioxide and water
Firefighting method:	If possible, immediately remove containers to a safe place. If containers cannot be removed, cool them by spraying water directly on or around them. Carry out firefighting activities on the windward side whenever possible.
Protection of firefighters:	Wear respiratory protective equipment.

6. Accidental Release Measures

Personal precautions:	Wear protective equipment to avoid skin and respiratory contact with droplets, etc. of the product.
Environmental precautions:	To avoid damage to the environment, take necessary measures for preventing release of products into rivers, and other parts of the natural water system. In case of dilution with large quantities of water, avoid release of contaminated liquids into the environment without the necessary treatment.
Method for cleaning up:	Recover released materials into containers as much as possible and seal them. Wash the part on which the material was released with plenty of water. While doing this, prevent highly concentrated liquids from being released into rivers, and other parts of the natural water system.

7. Handling and Storage

Handling

Technical measures:	To avoid skin and respiratory contact with the product, wear protective equipment.
Precautions:	he product should be handled with care as a potentially infectious material.
Safe handling advice:	No information available

Storage

Storage conditions:	Temperature: 2 to 10°C
Packaging materials:	No information available

8. Exposure Control and Personal Protection

Protective Equipment

Hands:	Wear impermeable gloves, when necessary.
Eyes:	Wear safety goggles, when necessary.
Skin and body:	Wear a protective long-sleeved shirt and long pants, when necessary.

9. Physical and Chemical Properties

(1) Basal medium

Appearance:	Powder
Color:	Light pink
Flash point:	No data available
Explosive properties:	No data available

(2) Sodium hydrogen carbonate

Appearance:	Crystalline powder
Color:	White
Flash point:	No data available
Explosive properties:	No data available

(3) Supplement

Appearance:	Liquid
Color:	Pale reddish brown
pH:	6.90 ± 0.10 (25°C)
Flash point:	No data available
Explosive properties:	No data available

10. Stability and Reactivity

Stability: Stable under normal conditions.

Reactivity: No autoreactivity

Hazardous decomposition or byproduct: No information available

11. Toxicological Information

Acute toxicity: No information available

Local effects: No information available

Sensitization: No information available

Chronic toxicity: Zinc may be accumulated in the body, leading to chronic zinc poisoning.

Carcinogenicity: No information available

Mutagenicity: No information available

Teratogenicity: No information available

Genotoxicity: No information available

Other: No information available

12. Ecological Information

Zinc is toxic to aquatic organisms and causes bioaccumulation.

13. Disposal Considerations

Leave disposal of the product to an approved waste disposer.

14. Transport Information

International regulations: No particular requirements

15. Regulatory Information

Industrial Safety and Health Law: Notifiable substances (ethanol)

16. Other Information

The information herein does not cover all data on the hazards and toxicology of this product, which requires careful handling.

This Material Safety Data Sheet is prepared based on currently available documents, information and data and does not guarantee the information concerning contents, physical and chemical properties, hazards and toxicology, etc. of the product. The precautions described herein are applicable only to the general handling methods of the product in laboratories, therefore, additional precautions may be necessary, depending on the application of the product in your laboratory.

The information herein is subject to change by legal revisions or new findings.