



## MATERIAL SAFETY DATA SHEET

### H2DCFDA-Cellular ROS Assay Kit

#### SECTION 1. IDENTIFICATION

<b>Product name</b>	H2DCFDA-Cellular ROS Assay Kit
<b>Catalogue number</b>	ZX-11104-1000/2000
<b>Manufacturer or supplier's details</b>	ZellBio GmbH . Krantorweg 48c . 13503 Berlin
<b>Telephone</b>	0049-30 81309085
<b>Fax</b>	0049-30 81309086
<b>Email</b>	support@zellx.de

#### SECTION 2. HAZARDS IDENTIFICATION



Regulation (EC) No. 1272/2008 [CLP/GHS]

Hydrogen Peroxide

Hazard statements

Precautionary statements

Dimethyl sulfoxide (DMSO)  
2,7 -Dichlorofluorescein diacetate

Skin Corr., Class 1B  
Eye Damage, Class 1

Causes severe skin burns.  
Causes serious eye damage.

Wash hands thoroughly after handling.  
Wear protective gloves, clothing, and eye/face protection.

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.  
Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

#### SECTION 3. FIRST AID MEASURES

General advice

If inhaled

Show this material safety data sheet to the doctor in attendance.

If inhaled, remove to fresh air

**In case of skin contact**

Rinse with copious amounts of water and wash thoroughly with soap and water.

**In case of eye contact**

Rinse eyes with running water, checking for and removing contact lenses. Assure adequate flushing by separating the eyelids with fingers and seek medical attention.

**If swallowed**

If swallowed, wash out mouth with water if person is conscious.

#### SECTION 4. INFORMATION ON INGREDIENTS

**Components:**

DMSO (1 mL)

Fluorescent Substrate (H2DCFDA) (5 mg)

Positive control (H2O2, 8.8M) (500 µL)

10X Assay Buffer (50 mL)

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**Description:**

Hydrogen Peroxide Solution, contains:

**Chemical Name**

Hydrogen Peroxide

**CAS No**

7722-84-1

**Control parameters**

1 ppm | 1.4 mg/m3

Additional components of the kit are non-hazardous or the specific chemical identity and/or exact percentage (concentration) of composition have been withheld as a trade secret.

ZX-11104-1000-2000

#### SECTION 5. FIRE-FIGHTING MEASURES

**Extinguishing Media**

Suitable: Water spray. Carbon Dioxide, dry chemical powder, or appropriate foam.

**Firefighting**

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

#### SECTION 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment. Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.

**Methods and materials for containment and cleaning up**

Keep in suitable, closed containers for disposal.

**Environmental precautions**

Discharge into drains should be avoided.

#### SECTION 7. HANDLING AND STORAGE

**Handling**

Avoid getting components of this kit on you or in you. Always wear appropriate protective clothing. Always wash hands and other exposed areas thoroughly after using this kit. Do not eat or drink while using this kit. Qualified and experienced professionals should only handle this kit.

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**Storage**

Store according to the package insert instructions.

**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION****Engineering Controls**

No special engineering controls are required when working with this kit.  
Use with adequate ventilation.

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**Protective Equipment**

Safety glasses are recommended to prevent eye contact. Chemical resistant gloves, lab coat should be worn to prevent skin contact.

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**SECTION 9. STABILITY AND REACTIVITY****Stability  
Hazardous  
Decomposition Products  
Incompatibilities**

This material is stable until the expiration date on the kit if stored as directed.  
Oxygen, which supports combustion.

Reducing agents, combustible materials.

**SECTION 10. TOXICOLOGICAL INFORMATION****Route of Exposure**

**Skin Contact:** May cause skin irritation.  
Skin LD50, mg/kg: 2,000.00, Rat - Category:4  
**Skin Absorption:** May be harmful if absorbed through the skin.  
**Eye Contact:** May cause eye irritation.  
**Inhalation:** May be harmful if inhaled. May be irritating to respiratory tract.  
Vapor LD50, mg/L/4hr: 2.00, Rat - Category:2  
Dust/Mist LD50, mg/L/4hr: No data available  
Gas LD50, ppm: No data available  
**Ingestion:** May be harmful if swallowed.  
Oral LD50, mg/kg: 801.00, Rat - Category:4

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**Symptoms of Exposure**

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

**SECTION 11. ECOLOGICAL INFORMATION**

96hr LC50 fish, mg/L: 22.00, Oncorhynchus mykiss  
48hr EC50 crustacea, mg/L: 2.32, Daphnia magna  
ErC50 algae, mg/L: 0.71 (72hr), Microcystis pulverea ssp. Incerta  
Other adverse effects: No data available.

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## SECTION 12. DISPOSAL CONSIDERATIONS

### Appropriate Method of Disposal of Substance

Dispose of waste materials, unused components and contaminated packaging in compliance with country, state, district and local regulations. If unsure of the applicable requirements, contact the authorities for information.

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## SECTION 13. TRANSPORT INFORMATION

### U.S. and Canadian Transportation; DOT

**Proper Shipping Name:** Chemical Kits  
**UN Identification Number:** 3316  
**Class and Description:** 9, Miscellaneous  
**Packing Group:** N/A  
**Hazard Label:** Class 9

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### International Air Transportation (IATA)

**Proper Shipping Name:** Chemical Kits  
**UN Identification Number:** 3316  
**Class and Description:** 9, Miscellaneous  
**Packing Group:** III Hazard  
**Label Class:** 9

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## SECTION 14. REGULATORY INFORMATION

### Product related information

The product is not subject to classification according to the sources of literature known to us.  
Observe general safety regulations when handling chemicals.

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### Safety Statements

Avoid release to the environment.

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### Risk Statements

Harmful if swallowed. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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### U.S. Regulatory Information

Sara Listed: No

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## SECTION 15. OTHER INFORMATION

### Department

R&D - ZELLX project - ZellBio GmbH

### Last Revision

07.03.2021

### Disclaimer:

For Research Use Only. Not for diagnostic, therapeutic, or other uses.

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## Other Information

The information contained in this document is accurate to the best of our knowledge and is provided in good faith. This document is intended only as a guide to the appropriate precautionary handling of the materials contained in this kit by properly trained personnel using this kit. Final determination or suitability of any materials is the sole responsibility of the user. ZELLX® shall not be held liable for any damage resulting from use or handling of this product.

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