

## Safety Data Sheet

### SECTION 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

Catalog Number: STA-859  
 Product Name: OxiSelect™ Ferric Reducing Antioxidant Power (FRAP) Assay Kit  
 Recommended Use: Laboratory Research Reagents

**MANUFACTURER:**

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### SECTION 2. HAZARDS IDENTIFICATION

Colorimetric Probe (Part No. 286001): Two 1 mL tubes

**Classification:**

Corrosive to metals, Category 1 (H290)  
 Skin corrosion, Category 1B (H314)  
 Skin irritation, Category 2 (H315)  
 Serious eye damage, Category 1 (H318)  
 Eye irritation, Category 2A (H319)  
 Specific target organ toxicity - single exposure, Category 3, Respiratory system (H335)


<b>Pictogram</b>	
<b>Signal Word</b>	<b>Danger</b>
<p><b>Hazard Statements:</b> May be corrosive to metals (H290), Causes severe skin burns and eye damage (H314), Causes skin irritation (H315), Causes serious eye irritation (H319), May cause respiratory irritation (H335).</p>	
<p><b>Precautionary Statements:</b> Avoid breathing dust/fume/gas/mist/vapors/spray (P261), Wash skin thoroughly after handling (P264), Use only outdoors or in a well-ventilated area (P271), Wear protective gloves/protective clothing/eye protection/face protection (P280), IF SWALLOWED: rinse mouth. Do NOT induce vomiting (P301 + P330 + P331), IF ON SKIN: wash with plenty of soap and water (P302 + P352), IF ON SKIN (or hair): take off immediately all contaminated clothing Rinse skin with water/shower (P303 + P361 + P353), IF INHALED: remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor. (P304 + P340 + P310), IF IN</p>	

**EYES:** rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER / doctor (P305 + P351 + P338 + P310), Call a POISON CENTER or doctor/physician if you feel unwell (P312), If skin irritation occurs: Get medical advice/attention (P332 + P313), If eye irritation persists: get medical advice/attention (P337 + P313), Take off contaminated clothing and wash before reuse (P362), Absorb spillage to prevent material damage (P390), Store in a well-ventilated place. Keep container tightly closed (P403 + P233), Store locked up (P405), Store in corrosive resistant stainless steel container with a resistant inner liner (P406), Dispose of contents/container to an approved waste disposal plant (P501).

Iron Chloride Solution (Part No. 286002): Two 1 mL tubes

**Classification:**


Corrosive to metals, Category 1 (H290)  
Acute toxicity, Oral, Category 4 (H302)  
Skin irritation, Category 2 (H315)  
Serious eye damage, Category 1 (H318)

<b>Pictogram</b>	
<b>Signal Word</b>	Danger
<b>Hazard Statements:</b> May be corrosive to metals (H290), Harmful if swallowed (H302), Causes skin irritation (H315), Causes serious eye damage (H318).	
<b>Precautionary Statements:</b> Keep only in original container (P234), Wash skin thoroughly after handling (P264), Do not eat, drink, or smoke when using this product (P270), Wear protective gloves/protective clothing/eye protection/face protection (P280), IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth. (P301 + P312 + P330), IF ON SKIN: wash with plenty of soap and water (P302 + P352), IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER / doctor (P305 + P351 + P338 + P310), If skin irritation occurs: Get medical advice/attention (P332 + P313), Take off contaminated clothing and wash before reuse (P362), Absorb spillage to prevent material damage (P390), Store in corrosive resistant stainless steel container with a resistant inner liner (P406), Dispose of contents/container to an approved waste disposal plant (P501).	

Iron(II) Standard (Part No. 285901): One 500 mg amber tube of crystals

**Classification:**

Acute toxicity, Oral, Category 4 (H302)  
Skin irritation, Category 2 (H315)  
Eye irritation, Category 2A (H319)

<b>Pictogram</b>	
<b>Signal Word</b>	Warning
<b>Hazard Statements:</b> Harmful if swallowed (H302), Causes skin irritation (H315), Causes serious eye irritation (H319).	
<b>Precautionary Statements:</b> Wash skin thoroughly after handling (P264), Do not eat, drink, or smoke when using this product (P270), Wear protective gloves/protective clothing/eye protection/face protection (P280), IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth. (P301 + P312 + P330), IF ON SKIN: wash with plenty of soap and water (P302 + P352), IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. (P305 + P351 + P338), If skin irritation occurs: Get medical advice/attention (P332 + P313), If eye irritation persists: get medical advice/attention (P337 + P313), Take off contaminated clothing and wash before reuse (P362), Dispose of contents/container to an approved waste disposal plant (P501).	


Assay Buffer (5X) (Part No. 286004): Two 25 mL bottles

**Classification:**

Flammable liquids, Category 3 (H226)

Skin corrosion, Category 1A (H314)

Serious eye damage, Category 1 (H318)

<b>Pictogram</b>	
<b>Signal Word</b>	<b>Danger</b>
<b>Hazard Statements:</b> Flammable liquid and vapor (H226), Causes severe skin burns and eye damage (H314).	
<b>Precautionary Statements:</b> Keep away from heat/sparks/open flames/hot surfaces. No smoking (P210), Keep container tightly closed (P233), Ground/bond container and receiving equipment (P240), Use explosion-proof electrical/ventilating/lighting/equipment (P241), Use only non-sparking tools (P242), Take precautionary measures against static discharge (P243), Wash skin thoroughly after handling (P264), Wear protective gloves/protective clothing/eye protection/face protection (P280), IF SWALLOWED: rinse mouth. Do NOT induce vomiting (P301 + P330 + P331), IF ON SKIN (or hair): take off immediately all contaminated clothing Rinse skin with water/shower (P303 + P361 + P353),	

IF INHALED: remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER / doctor (P304 + P340 + P310), IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER / doctor (P305 + P351 + P338 + P310), Wash contaminated clothing before reuse (P363), In case of fire: use dry sand, dry chemical or alcohol-resistant foam to extinguish (P370 + P378), Store in a well-ventilated place. Keep cool (P403 + P235), Store locked up (P405), Dispose of contents/container to an approved waste disposal plant (P501).

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Colorimetric Probe (Part No. 286001): Two 1 mL tubes

CHEMICAL NAME	CONCENTRATION	CAS #
Hydrochloric Acid	0.04N	7647-01-0

Iron Chloride Solution (Part No. 286002): Two 1 mL tubes

CHEMICAL NAME	CONCENTRATION	CAS #
Iron (III) Chloride Hexahydrate	20mM	10025-77-1

Iron(II) Standard (Part No. 285901): One 500 mg amber tube of crystals

CHEMICAL NAME	CONCENTRATION	CAS #
Iron(II) Sulfate Heptahydrate	Solid	7782-63-0

Assay Buffer (5X) (Part No. 286004): Two 25 mL bottles

CHEMICAL NAME	CONCENTRATION	CAS #
Acetic Acid	8 %	64-19-7

### SECTION 4. FIRST-AID MEASURES

- IF SWALLOWED, WASH OUT MOUTH WITH WATER PROVIDED PERSON IS CONSCIOUS. CALL A PHYSICIAN IF INHALED, REMOVE TO FRESH AIR. IF NOT BREATHING GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN.
- IN CASE OF SKIN CONTACT, FLUSH WITH COPIOUS AMOUNTS OF WATER FOR AT LEAST 15 MINUTES. REMOVE CONTAMINATED CLOTHING AND SHOES. CALL A PHYSICIAN.
- IN CASE OF CONTACT WITH EYES, FLUSH WITH COPIOUS AMOUNTS OF WATER FOR AT LEAST 15 MINUTES. ASSURE ADEQUATE FLUSHING BY SEPARATING THE EYELIDS WITH FINGERS. CALL A PHYSICIAN.

## **SECTION 5. FIRE-FIGHTING MEASURES**

- Suitable extinguishing media: Water spray, alcohol-resistant foam, dry chemical or CO2
- Special protective equipment: Self-contained breathing apparatus

## **SECTION 6. ACCIDENTAL RELEASE MEASURES**

- Evacuate area
- Wear self-contained breathing apparatus, rubber boots and heavy rubber gloves.
- Absorb with sand or vermiculite, sweep up, place in a bag and hold for waste disposal.
- Avoid raising dust.
- Ventilate area and wash spill site after material pickup is complete.

## **SECTION 7. SAFETY HANDLING AND STORAGE**

- Should be handled by trained personnel observing good laboratory practices.
- Avoid breathing vapor.
- Avoid skin contact or swallowing.
- May cause allergic reaction in sensitized individuals.
- Store in properly labeled containers at temperature on label

## **SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

- Engineering measures: Handle in accordance with good industrial hygiene and safety practices. Wash hands immediately after handling the product.
- Personal protective equipment: Face shield or safety glasses, gloves, protective clothing, suitable respiratory equipment in cases of inadequate ventilation.

## **SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

- Form: liquid
- Odor: no data available
- pH: no data available
- Boiling point / range: no data available
- Melting point / range: no data available
- Flash point: no data available
- Evaporation rate: no data available
- Vapor pressure: no data available
- Vapor density: no data available
- Relative density: no data available
- Water solubility: no data available
- Autoignition temperature: no data available
- Decomposition temperature: no data available
- Viscosity: no data available
- Explosive properties: no data available
- Oxidizing properties: no data available

## SECTION 10. STABILITY AND REACTIVITY

- Stability: no data available
- Reactivity: no data available
- Conditions to avoid: no data available
- Incompatible materials: no data available
- Decomposition products: no data available

## SECTION 11. TOXICOLOGICAL INFORMATION

- Acute toxicity
  - Proprietary Component A: LD50 Oral (bird) 5,62mg/kg
  - Hydrochloric acid: no data available
  - Iron (III) Chloride Hexahydrate: LD50 Oral (rat) 900mg/kg
  - Iron(II) Sulfate Heptahydrate: LD50 Oral (mouse) 1.520mg/kg; LD50 Intraperitoneal (mouse) 245 mg/kg; LD50 Intravenous (mouse) 51 mg/kg
  - Acetic acid: LD50 Oral 3.31 mg/kg (rat); LC50 Inhalation 5620 ppm (mouse); LC50 Inhalation 11.4 mg/L (rat); LD50 Dermal 1.112 mg/kg (rabbit)
- Skin corrosion/irritation
  - Proprietary Component A: no data available
  - Iron (III) Chloride Hexahydrate: no data available
  - All other hazardous components: no data available
- Serious eye damage/irritation
  - Acetic acid: Corrosive (rabbit)
  - All other hazardous components: no data available
- Respiratory or skin sensitization:
  - Acetic acid: may cause skin sensitization
  - All other hazardous components: no data available
- Germ cell mutagenicity: no data available
- Carcinogenicity: no data available
- Reproductive toxicity: no data available

## SECTION 12. ECOLOGICAL INFORMATION

- Ecotoxicity
  - Acetic acid: LC50 1.0 mg/L in 96 hrs (rainbow trout); EC50 300.82 mg/L in 48 hrs (water flea)
  - All other hazardous components: no data available
- Mobility: no data available
- Biodegradation: no data available
- Bioaccumulation: no data available

## SECTION 13. DISPOSAL CONSIDERATIONS

For small quantities: Cautiously add to a large stirred excess of water. Adjust the pH to neutral. Flush the aqueous solutions down the drain with plenty of water.

#### **SECTION 14. TRANSPORT INFORMATION - IATA**

- Hazard Class: 8
- Subsidiary Class: none
- Packing Group: III
- UN-No: UN2582

NOTE: THIS PRODUCT IS SHIPPED AS "DANGEROUS GOODS IN EXCEPTED QUANTITIES" UNDER IATA REGULATION 2.6.2.2.

#### **SECTION 15. REGULATORY INFORMATION**

- Safety, health and environmental regulations/legislation specific for the substance or mixture: no data available
- Chemical safety assessment: no data available

#### **SECTION 16. OTHER INFORMATION**

The above information is believed to be correct but does not purport to be all inclusive and should be used only as a guide for experienced personnel. Cell Biolabs, Inc. shall not be held liable for any damage resulting from the handling or from contact with the above product(s).

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