

PRODUCT AND COMPANY INFORMATION

- ◆ **Product name: Calcium Phosphate Transfection Kit**
- ◆ **Catalog number:**

CP90000 Calcium Phosphate Transfection Kit:

- 2.5 M Calcium Chloride Solution
- 1X HEPES Buffered Saline (HBS)

- ◆ **Chemical name or synonyms:**

- ◆ **Contact:**

OZ Biosciences
Parc Scientifique de Luminy
BP13
13273 Marseille cedex 9, France

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KIT CONTENT AND CLASSIFICATION

Common Name

- ◆ 2.5 M Calcium Chloride Solution
- ◆ 1X HEPES Buffered Saline (HBS)

Classification

Xi, R-36
/

SECTION 1 - PRODUCT AND COMPANY INFORMATION

◆ **Product name:** 2.5 M Calcium Chloride Solution

◆ **Chemical name or synonyms:**

◆ **Contact:**

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SECTION 2 – COMPOSITION, INFORMATION ON INGREDIENTS

Description: Aqueous solution of Calcium Chloride (2.5 M)

Ingredient name	CAS number	%	EINECS	Classification
Water	7732-18-5	70-75 %	231-791-2	None
Calcium Chloride	10043-52-4	25-30 %	233-140-8	Xi; R-36

SECTION 3 – HAZARDS IDENTIFICATION

◆ This product contains hazardous ingredients (Yes; No; Not Applicable or no information): **Yes**

○ **Calcium Chloride: Xi; R-36: irritating to eyes**

◆ This product contains hazardous carcinogens (Yes; No; N/A): **No**

◆ This product contains hazardous ingredients to the environment. (Yes; No; N/A): **No**

◆ **Effects and symptoms:**

- *Inhalation* Can cause minor respiratory irritation, dizziness, weakness, fatigue, nausea and headache. Can cause systemic damage.
- *Ingestion* Severely irritating to mouth, throat and stomach. Can cause abdominal discomfort, nausea, vomiting and diarrhea. May cause systemic poisoning if swallowed.
- *Skin contact* Can cause severe irritation, defatting and dermatitis. Irritation effects may last for hours or days but will not likely result in permanent damage.
- *Eye contact* May cause moderate to severe eye injury. Eye contact may result in tearing and reddening, but not likely to permanently injure eye tissue. Temporary vision impairment (cloudy or blurred vision) is possible.

SECTION 4 – FIRST AID MEASURES

◆ **First-Aid measures:**

- *Inhalation* If inhaled, remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention immediately.
- *Ingestion* Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.
- *Skin contact* In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothes before reuse. Thoroughly clean shoes before reuse. Get medical attention if irritation develops or persists.
- *Eye contact* In case of contact, immediately flush eyes with plenty of water for at least 15 minutes retracting eyelids often. Get medical attention immediately.
- *Notes to physician* Treat symptomatically.
- *Protection of first-aiders* Not available.

SECTION 5 – FIRE FIGHTING MEASURES

- ◆ **Flash Point:** Not available.
- ◆ **Flammability of the product:** Product itself is not combustible.
- ◆ **Fire hazards in presence of various substances:** Emits toxic fumes under fire conditions.
- ◆ **Fire fighting media and instructions:** Use an extinguish agent suitable for surrounding fires.
- ◆ **Special Fire Fighting Procedures:** Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. Fight fire from a safe distance and a protected location due to the potential of hazardous vapors and decomposition products.
- ◆ **Hazardous thermal decomposition products:** Includes carbon dioxide, carbon monoxide, dense smoke.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

- ◆ **Personal precautions:** Safety glasses, lab coat and gloves.
- ◆ **Environmental precautions and clean-up methods:** Absorb with an inert material and put the spilled material in an appropriate waste disposal. Finish cleaning by spreading water on the contaminated surface and allow evacuating through the sanitary system.
- ◆ **Small spill and leak:** Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

SECTION 7 – HANDLING AND STORAGE

- ◆ **Handling:** Avoid contacting and avoid breathing the material. Use only in a well ventilated area.
- ◆ **Storage:** Keep container tightly closed at -20°C.
- ◆ **Intended use:** Refer to the instruction booklet for proper and intended use. Otherwise, contact supplier for specific application.
- ◆ **Packaging materials**
- ◆ **Suitable:** Use original container.

SECTION 8 – EXPOSURE CONTROLS, PERSONAL PROTECTION

- ◆ **Engineering Controls:** Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. Ensure that eyewash stations and safety showers are proximal to the workstation location.
- ◆ **Personal protection**
 - **Eyes:** Safety glasses.
 - **Body:** Lab coat and gloves.
 - **Respiratory:** Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Respiratory protection is not required. Where protection is desired, use multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

- ◆ **Appearance**
 - **Physical State:** Liquid.
 - **Color:** Clear, colorless.
 - **Odor:** Odorless.
 - **Taste:** Not available.
- ◆ **Molecular weight:** Not available.
- ◆ **pH:** 7.0
- ◆ **Boiling point:** 100°C (212 F).
- ◆ **Melting point:** 0°C (32 F).
- ◆ **Flash point:** Not available.
- ◆ **Decomposition temperature:** Not available.
- ◆ **Solubility:** fully miscible in water.

SECTION 10 – STABILITY AND REACTIVITY

- ◆ **Stability and reactivity:** Stable under normal conditions of use and storage.
- ◆ **Conditions to avoid:** Moisture, metals.
- ◆ **Hazardous polymerization:** Will not occur.
- ◆ **Hazardous decomposition products:** Hydrogen chloride, chlorine containing gases.

SECTION 11 – TOXICOLOGICAL INFORMATION

- ◆ **Toxicity on animals:**
 - **LD50:** Not available.
 - **LC50:** Not available.
- ◆ **Chronic effects on humans:** Carcinogenic effects: not regulated by OSHA.
- ◆ **Other toxic effects on humans:** Hazardous in case of ingestion (calcium chloride: 1000 mg/kg), of eye and skin contact.

SECTION 12 – ECOLOGICAL INFORMATION

- ◆ **Ecotoxicological information:** This material is soluble in water. It's adsorption to soil and sediment should not be significant.
- ◆ **Environment fate:** Bioconcentration is not expected to occur. Does not biodegrade readily.

SECTION 13 – DISPOSAL CONSIDERATIONS

- ◆ **Waste stream:** Not available.
- ◆ **Waste disposal method:** Contact a licensed professional waste disposal service to dispose of this material. Dispose in accordance with governmental environmental regulations. Observe all federal, state, and local environmental regulations.
- ◆ **European waste catalogue (EWC):** Not available.
- ◆ **Hazardous waste:** Will not occur.

SECTION 14 – TRANSPORT INFORMATION

- ◆ This substance is considered to be non-hazardous for transport and air-transport.

SECTION 15 – REGULATORY INFORMATION

- ◆ **Labelling according to EC-Directives**
 - Note: This product must be labeled in accordance with EEC directive 67/548 and 99/45.
 - Hazard symbol: Xi Irritant.
 - Warnings: R36 Irritating to eyes.
 - Safety advice: S24 Avoid contact with skin.

SECTION 16 – OTHER INFORMATION

- ◆ **Hazardous Material Information System (U.S.A.):** Not determined
- ◆ **Other Comments:**

To the best of our knowledge, the information contain herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Restriction of use: for research use only.

SECTION 1 - PRODUCT AND COMPANY INFORMATION

- ◆ **Product name:** 1X Hepes Buffered Saline (HBS)
- ◆ **Chemical name or synonyms:**
- ◆ **Contact:**

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SECTION 2 – COMPOSITION, INFORMATION ON INGREDIENTS

Description: 1 X Hepes Buffered Saline solution

<u>Ingredient name</u>	<u>CAS number</u>	<u>%</u>	<u>EINECS</u>	<u>Classification</u>
Water	7732-18-5	> 97 %	231-791-2	None
HEPES Free Acid	7365-45-9	0.5 %	230-907-9	None
Glucose	50-99-7	0.5 – 1 %	200-075-1	None
Sodium Chloride	7647-14-5	0.5 – 1 %	231-598-3	None
Potassium Chloride	7447-40-7	0.01 – 0.05 %	231-211-8	None
Di-Sodium Hydrogen Phosphate Dihydrate	10028-24-7	0.01 %	231-448-7	None

SECTION 3 – HAZARDS IDENTIFICATION

- ◆ This product contains hazardous ingredients (Yes; No; Not Applicable or no information): **No**
- ◆ This product contains hazardous carcinogens (Yes; No; N/A): **No**
- ◆ This product contains hazardous ingredients to the environment. (Yes; No; N/A): **No**

◆ **Effects and symptoms:**

- *Inhalation* No toxicity expected from inhalation.
- *Ingestion* Mildly irritating to mouth, throat, and stomach. Can cause abdominal discomfort.
- *Skin contact* Can cause skin irritation.
- *Eye contact* May cause irritation of the eye.

SECTION 4 – FIRST AID MEASURES

◆ **First-Aid measures:**

- *Inhalation* If inhaled, remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention immediately.
- *Ingestion* Give plenty of water, if conscious. If vomiting occurs naturally, wash mouth out. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms develop.
- *Skin contact* In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothes before reuse. Thoroughly clean shoes before reuse. Get medical attention if symptoms develop (redness, itching...).
- *Eye contact* In case of contact, immediately flush eyes with plenty of water for at least 15 minutes retracting eyelids often. Get medical attention if symptoms develop (redness, itching...).
- *Notes to physician* Treat symptomatically.
- *Protection of first-aiders* Not available.

SECTION 5 – FIRE FIGHTING MEASURES

- ◆ **Flash Point:** Not available.
- ◆ **Flammability of the product:** Product itself is not combustible.
- ◆ **Fire hazards in presence of various substances:** Emits toxic fumes under fire conditions.
- ◆ **Fire fighting media and instructions:** Use an extinguish agent suitable (water spray, carbon dioxide, dry chemical powder, or appropriate foam) for surrounding fires.
- ◆ **Special Fire Fighting Procedures:** Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. Fight fire from a safe distance and a protected location due to the potential of hazardous vapors and decomposition products.
- ◆ **Hazardous thermal decomposition products:** Includes carbon dioxide, carbon monoxide, dense smoke.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

- ◆ **Personal precautions:** Safety glasses, lab coat and gloves.
- ◆ **Environmental precautions and clean-up methods:** Absorb with an inert material and put the spilled material in an appropriate waste disposal. Finish cleaning by spreading water on the contaminated surface and allow evacuating through the sanitary system.
- ◆ **Small spill and leak:** Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

SECTION 7 – HANDLING AND STORAGE

- ◆ **Handling:** Avoid contacting and avoid breathing the material. Use only in a well ventilated area.
- ◆ **Storage:** Keep container tightly closed at -20°C.
- ◆ **Intended use:** Refer to the instruction booklet for proper and intended use. Otherwise, contact supplier for specific application.
- ◆ **Packaging materials**
- ◆ **Suitable:** Use original container.

SECTION 8 – EXPOSURE CONTROLS, PERSONAL PROTECTION

- ◆ **Engineering Controls:** Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. Ensure that eyewash stations and safety showers are proximal to the workstation location.
- ◆ **Personal protection**
 - **Eyes:** Safety glasses.
 - **Body:** Lab coat and gloves.
 - **Respiratory:** No respiratory protection will be needed under normal industrial operating conditions.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

- ◆ **Appearance**
 - **Physical State:** Liquid.
 - **Color:** Clear, colorless.
 - **Odor:** Odorless.
 - **Taste:** Not available.
- ◆ **Molecular weight:** Not available.
- ◆ **pH:** 7.0
- ◆ **Boiling point:** 100°C (212 F).
- ◆ **Melting point:** 0°C (32 F).
- ◆ **Flash point:** Not available.
- ◆ **Decomposition temperature:** Not available.
- ◆ **Density:** 1.0
- ◆ **Solubility:** fully miscible in water.

SECTION 10 – STABILITY AND REACTIVITY

- ◆ **Stability and reactivity:** Stable under normal conditions of use and storage.
- ◆ **Conditions to avoid:** Strong oxidizing agents.
- ◆ **Hazardous polymerization:** Will not occur.
- ◆ **Hazardous decomposition products:** Chlorinated compounds.

SECTION 11 – TOXICOLOGICAL INFORMATION

- ◆ **Toxicity on animals:**
 - **LD50:** Not available.
 - **LC50:** Not available.
- ◆ **Chronic effects on humans:** Carcinogenic effects: not regulated by OSHA.
- ◆ **Other toxic effects on humans:** Slightly hazardous in case of ingestion, of eye contact.

SECTION 12 – ECOLOGICAL INFORMATION

- ◆ **Ecotoxicological information:** Not available.
- ◆ **Environment fate:** Bioconcentration is not expected to occur.

SECTION 13 – DISPOSAL CONSIDERATIONS

- ◆ **Waste stream:** Not available.
- ◆ **Waste disposal method:** Contact a licensed professional waste disposal service to dispose of this material. Dispose in accordance with governmental environmental regulations. Observe all federal, state, and local environmental regulations.
- ◆ **European waste catalogue (EWC):** Not available.
- ◆ **Hazardous waste:** Will not occur.

SECTION 14 – TRANSPORT INFORMATION

- ◆ This substance is considered to be non-hazardous for transport and air-transport.

SECTION 15 – REGULATORY INFORMATION

- ◆ This product is not classified according to the EU regulations.

SECTION 16 – OTHER INFORMATION

- ◆ **Hazardous Material Information System (U.S.A.):** Not determined
- ◆ **Other Comments:**

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