

MATERIAL SAFETY DATA SHEET

SECTION 1 - PRODUCT AND COMPANY INFORMATION

- ◆ **Product name:** SEAP Assay Kit
- ◆ **Catalog number:** SP00500
- ◆ **Chemical name or synonyms:** none
- ◆ **Kit composition:**
 - pNPP-containing assay buffer
 - Reaction Buffer #1
 - Reaction Buffer #2
 - Dilution Buffer

◆ **Contact:**

OZ Biosciences
 Parc Scientifique de Luminy – Zone Luminy Entreprises
 163 Avenue de Luminy – Case 922
 13288 Marseille cedex 9, France
 Phone: +33 (0)4.86.94.85.16 / Fax: +33 (0)4.86.94.85.15
www.ozbiosciences.com / contact@ozbiosciences.com

SECTION 2 – HAZARDS IDENTIFICATION

Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP] and GHS

Acute toxicity, Oral (Category 4), H302
 Specific target organ toxicity - repeated exposure (Category 2), H373
 Serious eye damage (Category 1), H318
 Acute aquatic toxicity (Category 3), H402

GHS Label elements, including precautionary statements

Pictogram



Signal word

Danger

Hazard statement

H302	Harmful if swallowed.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H402	Harmful to aquatic life.

Precautionary statements

P264	Wash skin thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P273	Avoid release to the environment.
P280	Wear protective gloves/ eye protection/ face protection.
P301 + P312	IF SWALLOWED: Call a POISON CENTER or a doctor/ physician if you feel unwell.
P302 + P350	IF ON SKIN: Gently wash with plenty of soap and water.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P330	Rinse mouth.
P501	Dispose of contents/container to an approved waste disposal plant.

According to European Directive 67/548/EEC as amended.

Hazard symbol(s)



R-phrases(s)

R22 Harmful if swallowed.

R38 Irritating to skin.

R41 Risk of serious damage to eyes.

R48 Danger of serious damage to health by prolonged exposure.

S-phrases(s)

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

S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

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

SECTION 3 – COMPOSITION, INFORMATION ON INGREDIENTS

Ingredient	CAS Number	EC Number	GHS Classification
Assay buffer containing 5-35 % diethanolamine CAS# 111-42-2	Not Available	Not Available	Acute toxicity, Oral (Category 4), Specific target organ toxicity - repeated exposure (Category 2), Serious eye damage (Category 1), Acute aquatic toxicity (Category 3); H302, H315, H318, H402, P264, P270, P273, P280, P301 + P312, P305 + P351 + P338, P310, P330, P501
Assay buffer containing 5-35 % MgCl ₂	7786-30-3	232-094-6	Not Dangerous at Given Concentration
Dilution buffer	Not Available	Not Available	Not Dangerous
SEAP substrate (4-Nitrophenyl phosphate disodium salt hexahydrate)	333338-18-4	224-246-5	Not Dangerous

SECTION 4 – FIRST AID MEASURES**◆ Effects and symptoms:**

- *Inhalation* Hazardous in case of inhalation.
- *Ingestion* May be fatal if swallowed.
- *Skin contact* Causes skin irritation. May be harmful if absorbed through the skin.
- *Eye contact* Causes eye irritation. Risk of serious damage to the eyes.
- *Aggravating conditions* No aggravating condition known.

◆ 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.
- *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 immediately.
- *Eye contact* In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.
- *Notes to physician* Not available.
- *Protection of first-aiders* Not available.

SECTION 5 – FIRE FIGHTING MEASURES

- ◆ **Flammability of the product:** May be combustible at high temperature.
- ◆ **Flash Point:** N/A.
- ◆ **Fire hazards in presence of various substances:** N/A.
- ◆ **Fire fighting media and instructions:** SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. Do not use water jet.
- ◆ **Protective clothing (fire):** Be sure to use an approved/certified respirator or equivalent.
- ◆ **Hazardous thermal decomposition products:** Carbon oxides, nitrogen oxides.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

- ◆ **Personal precautions:** Wear 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:** Keep away from heat and sources of ignition. Avoid breathing vapors or spray mists. Avoid prolonged exposure.
- ◆ **Storage:** Keep container tightly closed. Keep container in a cool, well-ventilated area. Store pNPP-containing assay buffer at -20°C. All other components of the kit must be stored at +4°C. Use original container.
- ◆ **Intended use:** Refer to the instruction booklet for proper and intended use. Otherwise, contact supplier for specific application.

SECTION 8 – EXPOSURE CONTROLS, PERSONAL PROTECTION

Components with workplace control parameters

Component	CAS	Value	Control Parameters	Basis
Diethanolamine	111-42-2	TWA	3 ppm 15mg/m ³	USA. OSHA - TABLE Z-1 Limits for air contaminants - 1910.1000
		TWA	1 mg/m ³	USA. ACGIH Threshold Limit Values (TLV)
		TWA	3 ppm 15mg/m ³	USA NIOSH Recommended Exposure Limits

Remarks: Liver damage and kidney damage. Confirmed animal carcinogen with unknown relevance to humans. Danger of cutaneous absorption.

- ◆ **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 work-station location.

Personal protective equipment

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Eye protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and body protection

Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene measures

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product..

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Physical state: Not available

Color: Not available

Safety Data

Odor: Not available

Odor threshold: Not available

pH: Not available

Melting point/freezing point: Not available

Initial boiling point and boiling range: Not available
 Flash point: Not available
 Evaporation rate: Not available
 Flammability: Not available
 Upper/lower flammability or explosive limits: Not available
 Vapor pressure: Not available
 Relative density: Not available
 Solubility: Not available
 Partition coefficient (n-octanol/water): Not available
 Auto-ignition temperature: Not available
 Decomposition temperature: Not available
 Viscosity: Not available

SECTION 10 – STABILITY AND REACTIVITY

- ◆ **Stability and reactivity:** The product is stable at a pH between 4 and 11
- ◆ **Conditions to avoid:** pH < 4 and pH > 11, using temperatures < + 2°C and > + 96°C
- ◆ **Materials to avoid:** Strong acids, strong bases, strong oxidizing agents.
- ◆ **Hazardous polymerization:** Will not occur.
- ◆ **Hazardous decomposition products:** Not available.

SECTION 11 – TOXICOLOGICAL INFORMATION

Acute toxicity: LD50 Oral 710 mg/kg (rat; Diethanolamine)
 LD50 Dermal 12,200 mg/kg (rabbit; Diethanolamine)
Acute toxicity: No data available
Skin corrosion/irritation: Draize Test - Mild skin irritation 24 h (rabbit; Diethanolamine)
Serious eye damage/irritation: Severe eye irritation 24 h (rabbit; Diethanolamine)
Respiratory or skin sensitization: No data available
Germ cell mutagenicity: No data available
Carcinogenicity: 2B - Group 2B: Possibly carcinogenic to humans (Diethanolamine)
Reproductive toxicity: No data available
Additional information: RTECS: KL2975000 (Diethanolamine)

SECTION 12 – ECOLOGICAL INFORMATION

No data available.

SECTION 13 – DISPOSAL CONSIDERATIONS

- ◆ **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

Note Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

D.O.T.: Not regulated.

IATA.: Not regulated.

IMDG: Not regulated.

SECTION 15 – REGULATORY INFORMATION

This product is not classified according to the EU regulations.

Safety, health and environmental regulations/legislation specific for the substance or mixture
 no data available

Chemical Safety Assessment

no data available

SARA 302 Component: None of the ingredients are listed.**SARA 313 Component:** The following component is subject to reporting levels established by SARA Title III, Section 313.

Diethanolamine CAS no. 111-42-2

SARA 311/312 Hazards: Acute Health Hazard, Chronic Health Hazard**U.S. State Regulations**

Chemical Name	Massachusetts RTK	New Jersey RTK	Pennsylvania RTK
Diethanolamine CAS no. 111-42-2	X	X	X

California Proposition 65: WARNING! This product contains a chemical known to the State of California to cause cancer.

Diethanolamine CAS no. 111-42-2

SECTION 16 – OTHER INFORMATION◆ **Hazardous Material Information System (U.S.A.):**

Health	1
Fire	1
Reactivity	0
Personal Protection	E

National Fire Protection Association (U.S.A.):

0 = not significant
1 = slight
2 = moderate

3 = high
4 = extreme
* = chronic

◆ **Revisions:**

Issue Date: 22-May-2014

Last Revision Date: 25-Aug-2016

Revision note: New format. updated Section 2,8,15,16.

◆ **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.

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