MATERIAL SAFETY DATA SHEET

SECTION 1: PRODUCT AND COMPANY

- **Product name: FluoProdige protein quantification assay kit**
- **Catalog number:** FPRO200
- **Chemical name or synonyms:** none
- **Kit contains:**
  - ***FluoProdige fluorescent Dye***
  - ***Dilution Buffer***
  - ***Lyophilized Standard of Bovine Serum Albumin***

- **Contact :**

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SECTION 2 – HAZARDS IDENTIFICATION

- **Classification of the substance or mixture**

Classification according to Regulation (EC) No 1272/2008

• FluoProdige fluorescent Dye	Not Classified
• Dilution Buffer	**Eye Irritation (Category 2B)**
• Lyophilized Standard of Bovine Serum Albumin	Not Classified

- **Label elements**

Labelling according Regulation (EC) No 1272/2008
Pictogram:

Signal word:	**Warning**
Hazard statement(s)	
H320	Causes eye irritation
Precautionary statement(s)	
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Supplemental Hazard Statements	none

SECTION 3 – COMPOSITION, INFORMATION ON INGREDIENTS

Ingredient name	Description	CAS number	%	EINECS	Classification
FluoProdige fluorescent Dye	A solution of proprietary compounds in DMSO	67-68-5 (DMSO)	>90%	95-100	None
Dilution Buffer	Sodium carbonate	497-19-8 (Sodium	Less than 10 %	207-898-8 (Sodium	H320

	and sodium bicarbonate in water	carbonate) 144-55-8 (sodium bicarbonate)773-218-5 (Water)		carbonate) 205-633-8 (sodium bicarbonate)	
Bovine serum albumin	Lyophilized BSA	9048-46-8	-	232-936-2	None

This product contains hazardous ingredients (yes; no; n/a; n/i): yes
This product contains hazardous carcinogens (y; n; n/a; n/i): no

SECTION 4-HEALTH HAZARD DATA

FluoProdige fluorescent Dye (Hazards associated with DMSO):

Skin contact	Rinse with plenty of water. Immediate medical attention is not required
Eye contact	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
INGESTION	Not expected to present a significant ingestion hazard under anticipated conditions of normal use. If you feel unwell, seek medical advice.
Inhalation	Not expected to be an inhalation hazard under anticipated conditions of normal use of this material. Consult a physician if necessary
Notes to Physician	Treat symptomatically.

Dilution Buffer

Inhalation:	Remove to fresh air
Ingestion:	Rinse mouth with water.
Skin Contact:	Wash immediately with soap and water. Seek medical attention if irritation occurs.
Eye Contact:	Rinse with thoroughly with plenty of water for at least 15 minutes. Seek medical attention.

BSA Standard

Inhalation	If breathed in, move person into fresh air. If not breathing, give artificial respiration.
Skin Contact	Wash off with soap and plenty of water.
Eye Contact	Flush eyes with water as a precaution.
Ingestion	Never give anything by mouth to an unconscious person. Rinse mouth with water.

Most important symptoms and effects, both acute and delayed
The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11
Indication of any immediate medical attention and special treatment needed
no data available

SECTION 5 – FIRE FIGHTING MEASURES

FluoProdige fluorescent Dye (Hazards associated with DMSO):

Extinguishing media	
Suitable Extinguishing Media	Water spray. Carbon dioxide (CO2). Foam. Dry chemical.
Special hazards arising from the substance or mixture	Not Known
Advice for fire-fighters	Standard procedure for chemical fires

Dilution Buffer

Extinguishing media	
Suitable Extinguishing Media	Use extinguishing media suitable for surrounding area
Special hazards arising from the substance or mixture	Not Known
Advice for fire-fighters	Standard procedure for chemical fires

BSA Standard

Extinguishing media	
Suitable Extinguishing Media	Water spray. Carbon dioxide (CO2). Foam. Dry chemical.
Special hazards arising from the substance or mixture	Not Known
Advice for fire-fighters	Standard procedure for chemical fires

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures
Wear respiratory protection. Avoid breathing vapours, mist or gas. Ensure adequate ventilation.
Evacuate personnel to safe areas.
For personal protection see section 8.

Environmental precautions
Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Methods and materials for containment and cleaning up
Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

Reference to other sections
For disposal see section 13.

SECTION 7 – HANDLING AND STORAGE

- **Handling and storage:**
  - *Information for safe handling***:** Ensure good ventilation/exhaustion at the workplace. No special
- precautions are necessary if used correctly.
  - *Information about protection against explosions and fires*: No special measures required.
  - *Requirements to be met by storerooms and receptacles:* No special requirements.
  - *Information about storage in one common storage facility:* Not required.

  - *Further information about storage conditions:* Upon receipt, store all reagent tubes at 4°C (up to 6 months). For long term storage, store the dye at -20°C..

- **Stability and reactivity:**
  - *Thermal decomposition / conditions to be avoided*: No decomposition if used according to specifications.
  - *Dangerous reactions* No dangerous reactions known
  - *Dangerous products of decomposition:* No dangerous decomposition products known

SECTION 8 – EXPOSURE CONTROLS, PERSONAL PROTECTION

Exposure Controls:
Control parameters:
Components with limit values that require monitoring at the workplace:
Contains no substances with occupational exposure limit values.

Appropriate engineering controls
General industrial hygiene practice.
Personal protective equipment
Eye/face protection
Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
Skin 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.
The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.
Full contact
Material: Nitrile rubber
Minimum layer thickness: 0,11 mm
Break through time: 480 min
Material tested:Dermatril® (KCL 740 / Aldrich Z677272, Size M)
Splash contact
Material: Nitrile rubber

Minimum layer thickness: 0,11 mm
Break through time: 480 min
Material tested:Dermatril® (KCL 740 / Aldrich Z677272, Size M)
data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de,
test method: EN374
If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body Protection

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental expos

Do not let product enter drains.

SECTION 9-PHYSICAL AND CHEMICAL PROPERTIES

FluoProdige fluorescent Dye (Properties associated with DMSO):

Appearance	Liquid
Odour	no data available.
pH	6-8
Melting Range	°C 18-19
Flash Point	°C 87-89
Boiling Point	°C 188-190
Autoignition Point	°C 214-216
Decomposition	No Data
Evaporation rate	no data available
Flammability (solid, gas)	no data available
Solubility no data available	
Upper explosion limit	61% - 64%
Lower explosion limit	2.4% - 2.8%
Vapour Pressure	Mixture has not been tested
Relative density	Mixture has not been tested
Specific gravity	no data available
Partition coefficient:	
n-octanol/water	no data available
Explosive properties	Mixture has not been tested
OTHER INFORMATION	no data available

Dilution Buffer

Appearance:		
		Form: Liquid
		Color: Colorless
Odor:		None
pH:		9.2
Melting Point:		851°C/ 1564°F
Boiling Point:		N/A
Flash Point:		N/A
Ignition temperature:		N/A
Explosion limits:	Lower:	no data available
	Upper:	no data available
Vapor Pressure @ 20ºC:		N/A
Specific Gravity @ 20ºC (68ºF):		no data available
Vapor Density:		N/A
Percent Volatile:		N/A
Evaporation Rate:		N/A

Flammable Limits in air % by volume: Lel: N/A
Uel: N/A

Solubility in/ Miscibility with Water@20ºC: soluble

BSA Standard

Appearance Form:	powder, lyophilized
Colour:	white, light brown
Odour	no data available
pH	4,8 - 7,5
Melting point/freezing	no data available
Initial boiling range	no data available
Flash point	no data available
Evaporation rate	no data available
Flammability (solid, gas)	no data available
Upper/lower flammability	no data available
Vapour pressure	no data available
Vapour density	no data available
Relative density	no data available
Water solubility	solubleslightly soluble
Partition coefficient:	
noctanol/water	no data available
Auto-ignition	
Temperature	no data available
q) Decomposition	
temperature	no data available
Viscosity	no data available
Explosive properties	no data available
Oxidizing properties	no data available

SECTION 10-REACTIVITY DATA

FluoProdige fluorescent Dye (Properties associated with DMSO):

Reactivity	Not known
Chemical Stability	Stable under normal conditions.
Possibility of hazardous reactions	Hazardous reaction has not been reported.
Conditions to Avoid	No information available.
Incompatible Materials	Strong acids. Strong oxidising agents.
Hazardous decomposition products	no data available.

Dilution Buffer

Stability:	Stable
Incompatibility:	Phosphorous pentoxide, sulfuric acid, zinc, lithium, moisture, calcium hydroxide and 2,4,6-trinitrotoluene. Reacts violently with acids to form carbon dioxide
Conditions to Avoid:	None identified.
Hazardous Polymerization:	Will not occur
Hazardous Decomposition:	Carbon oxides and sodium oxides may form under fire conditions

BSA Standard

Reactivity	no data available
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	no data available
Conditions to avoid	no data available
Incompatible materials	Strong oxidizing agents
Hazardous decomposition products	
Other decomposition products -	no data available

SECTION 11: TOXICOLOGICAL INFORMATION

FluoProdige fluorescent Dye (Properties associated with DMSO):

Information on toxicological effects

Chemical Name	LD50 (Oral rat/mouse)	LD50 (dermal, rat/rabbit)	LC50 (inhalation, rat /mouse)
Dimethyl sulfoxide	14500 mg/kg	>40000 mg/kg	>5000 mg/L

Principle Routes of Exposure, Potential health effects

Irritation Mild skin irritant	Mild eye irritation Components of the product may be absorbed into the body through the skin
Corrosivity	Conclusive but not sufficient for classification
Sensitisation	Conclusive but not sufficient for classification
STOT - Single Exposure	Conclusive but not sufficient for classification
STOT - Repeated Exposure	Conclusive but not sufficient for classification
Carcinogenicity	Conclusive but not sufficient for classification
Mutagenicity	Conclusive but not sufficient for classification
Reproductive toxicity	Conclusive but not sufficient for classification
Dilution Buffer	no data available
BSA Standard	no date available

SECTION 12: ECOLOGICAL INFORMATION

Toxicity
no data available

Persistence and degradability
no data available

Bioaccumulative potential
no data available

Mobility in soil
no data available

Results of PBT and vPvB assessment
PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

Other adverse effects
no data available

SECTION 13: DISPOSAL CONSIDERATIONS

- **Waste treatment methods**
  Recommendation
  Hand over to hazardous waste disposers.
  Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

- **Uncleaned packagings:**
  Recommendation: Disposal must be made according to official regulations.
  Recommended cleansing agent: Water, if necessary with cleansing agents.

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 – OTHER INFORMATION

- **US Federal Regulations**

RCRA (Lists of Hazardous Wastes, 40 CFR 261 Subpart D): Not applicable

CLEAN AIR ACT (SEC. 112. Hazardous Air Pollutants): Not applicable

CLEAN WATER ACT (RQ, 40 CFR): Not applicable

SARA Title III:

Section 302 -304, 40 CFR 355: Components present in this product at a level which could require reporting are: none.

Section 311 - 312: Components present in this product at a level which could require reporting are: none.

Section 313: Not applicable

TSCA Section 8(b) Inventory Status: All ingredients are listed on TSCA Inventory of Chemical Substances or exempt from TSCA Inventory requirements.

AICS Inventory Status: All ingredients are listed on the Australia Inventory of Chemical Substances.

State Lists

This product does not contain any Proposition 65 chemicals.

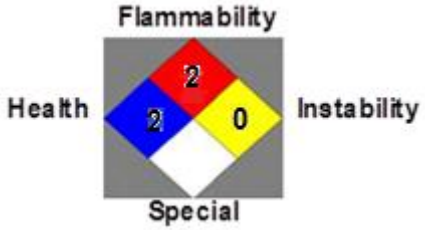
- This product is not classified according to the EU regulations.

SECTION 16– OTHER INFORMATION

- **Hazardous Material Information System (U.S.A.):**

Health	**1**
Fire hazard	**2**
Reactivity	**0**
Personal protection	**F**

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



0 = not significant
1 = slight
2 = moderate
3 = high
4 = extreme
* = chronic

- **Revisions:**
  Issue Date: 12-Dec-2016
  Last Revision Date: 03-Jan-2017
  Revision note: New format. updated Section 2,8,15,16.

- **Steps to be taken in Case Material is Released or Spilled:**
  Ventilate the area. Initiate cleaning up immediately. If the product is dry, mop up. If the product is a solution, use an absorbent material to contain/pick up the spilled solution. Once spent, place all the contaminated disposables into a suitable container, seal, label and dispose.
- **Waste Disposal Method:**
  Dispose in accordance with governmental environmental regulations.

- **Measure for environmental protection :**
  Dilute with plenty of water. Do not allow to enter sewers/ surface or ground water.

- **Precaution to be taken in Handling and Storage:**

  See package insert for storage information.
- **Maintenance Precautions:**
  N/A

- **Other Precautions:**
  N/A
- **Other Comments:**
  N-No, Y-Yes, N/A-Not Applicable, N/I-No Information.
  The information provided is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. OZ Biosciences shall not be held liable for any damage resulting from handling or from contact with the product.