

MATERIAL SAFETY DATA SHEET MSDS No.2012612
1. IDENTIFICATION OF SUBSTANCE
Product name : Prolyl 4-Hydroxylated Human α -Fibrinogen ELISA Kit

Catalog number : KG612

Manufactures :

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2. COMPOSITION / INFORMATION ON INGREDIENTS

COMPONENT	CHEMICAL NAME	CAS NUMBER	CONTENT
【1】 Precoated plate	Anti-human FGA antibody, mouse IgG	-	-
【2】 Labeled antibody conc.	HRP conjugated Anti- Human HP-FGA Mouse IgG Fab'	-	-
【3】 Standard	Human HP-FGA ①	-	-
【4】 EIA buffer 【5】 Solution for Solution for Labeled antibody	BSA ②	-	1 %
	Tween-20 ③	9005-64-5	0.05 % (v/v)
	Potassium chloride ④	7447-40-7	0.02 %
	Potassium dihydrogen phosphate ⑤	7778-77-0	0.02 %
	Sodium chloride ⑥	7647-14-5	0.8 %
	Disodium hydrogen phosphate ⑦	7558-79-4	0.115 %
【6】 Chromogen	TMB ⑧	-	-
【7】 Stop solution	Sulfuric acid ⑨	7664-93-9	4.9 % (w/v)
【8】 Wash buffer Conc.	Tween-20 ③	9005-64-5	2 % (v/v)
	Potassium dihydrogen phosphate ⑤	7778-77-0	0.884 %
	Disodium hydrogen phosphate ⑦	7558-79-4	5.838 %
	Proclin300 ⑩	-	0.05 % (v/v)

• **SYNONYMS:** ①=Prolyl 4-Hydroxylated Human α -Fibrinogen

②=Bovine serum albumin

③=Polyoxyethylene Sorbitan Monolaurate

⑤=potassium phosphate monobasic

⑦=sodium hydrogenphosphate

- **Formula:** ④ KCl ⑤ KH₂PO₄ ⑥ NaCl ⑦ Na₂HPO₄ ⑨ H₂SO₄
- **Molecular weight:** ④ 74.55 ⑤ 136.09 ⑥ 58.44 ⑦ 141.96 ⑨ 98.08
- **EINECS No.:** ④ 231-211-8 ⑤ 231-913-4 ⑥ 231-598-3 ⑦ 231-448-7 ⑨ 231-639-5

3. HAZARDS IDENTIFICATION (Sulfuric acid solution)

- **NFPA704** : health-3, flam.-0, react.-2
- **Main hazard** : Acute toxicity, corrosive, strong acidity
- **Flammability** : Non flammability
- **Potential health effect** :

Skin Corrosive. Severe burn can occur.

Eyes Corrosive. Can cause blindness.

Inhalation Inhalation produces damaging effects on the mucous membranes and upper respiratory tract. Symptoms may include irritation of the nose and throat and labored breathing. May cause lung edema, a medical emergency.

Ingestion Corrosive. Swallowing can cause severe burns of the mouth, throat and stomach, leading to death. Can cause sore throat, vomiting and diarrhea. Circulatory shock is often the immediate cause of death.

4. FIRST AID MEASURES

- **General advice** :

Wash off immediately with soap and plenty of water. In the case of respirable dust and/or fumes, use self-contained breathing apparatus and dust impervious protective suit. Use personal protective equipment.

- **Skin contact** :

【7】:Remove contaminated clothes and shoes, rinse skin with plenty of water or shower. Use soap to help assure removal. If irritation persists, transport to a hospital immediately.

- **Eye contact** :

【7】:Remove any contact lenses at once. Flush eyes well with flooding amounts of running water for at least 15 minutes. Assure adequate flushing by separating the eyelids with sterile fingers. Transport to a hospital immediately.

- **Inhalation** : Move victim to fresh air. If breathing is difficult, give oxygen. If irritation persists, consult a physician.

- **Ingestion** :

【7】:Rinse mouth, give plenty of water to dilute the substance. Do not induce vomiting. Never give anything by mouth to an unconscious person. Transport to a hospital immediately.

5. FIRE FIGHTING MEASURES

- **Extinguishing media** : Carbon dioxide, dry chemical powder, foam, water spray.
- **Fire & explosion hazards** : Toxic, irritating fumes or smoke may be emitted.
- **Special protective equipment for firefighters** :

Firemen should wear normal protective equipment (full bunker gear) and positive-pressure self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

- **Personal precautions :**

Remove ignition sources and ventilate area. In case of insufficient ventilation, wear suitable respiratory equipment. Avoid raising dust and avoid contact with skin and eyes.

- **Environmental precautions :** Prevent spills from entering sewers, watercourses or low areas.

- **Methods for cleanup :**

【7】 :Do not touch spilled material without suitable protection (see section 8). Take up spilled material with ashes or other incombustible absorbents and dilute it with plenty of water and neutralized with soda ash. After material is completely picked up, wash the spill site with soap and water and ventilate the area. Put all waste in a plastic bag for disposal and seal it tightly. Remove, clean, or dispose of contaminated clothing.

7. HANDLING AND STORAGE

- **Handling :**

Avoid contact with eyes, skin and clothing. Avoid prolonged or repeated exposure. Handle material with suitable protection away from source of heat or ignition. Ensure good ventilation at the workspace.

- **Storage :** Keep container tightly closed. Store in a cool, dry, well-ventilated area away from incompatible substances.

- **Incompatible products :** ⑨:Sulfuric acid ; Oxidizers

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

- **Engineering measures :**

Use exhaust ventilation to keep airborne concentrations below exposure limits. Use only with adequate ventilation.

- **Ventilation :** Local Exhaust; Necessary, Mechanical (General);Recommended.

- **Control parameter :**

⑨:Sulfuric acid ; OSHA : PEL-TWA= 1 mg/m³

ACGIH : TLV TWA= 1 mg/m³, TLV STEL= 3 mg/ m³

- **Personal protection :**

Respiratory protection: NIOSH/MSHA approved respirator

Hand protection: Chemical resistant gloves

Eye protection: Safety glasses (goggles)

Skin protection: Protective clothing

9. PHYSICAL AND CHEMICAL PROPERTIES

- **Appearance :**

【1】 Colorless clear plate

【5】 Colorless clear liquid

【2】 Colorless clear liquid

【6】 Light blue-green liquid

【3】 Pale yellow powder

【7】 Colorless clear liquid

【4】 Colorless clear liquid

【8】 Colorless clear liquid

- **Odor** : Odorless
- **pH** : 【7】 ; 0.3 (1N solution), Other reagents ; Not determined
- **Boiling point** : Not determined
- **Melting point** : Not determined
- **Flash point** : Not applicable
- **Explosive limits** : Product does not present an explosive hazard.
- **Vapor pressure** : Not available
- **Solubility in water** : Fully miscible

10. STABILITY AND REACTIVITY

- **Chemical stability** : This material is stable under normal condition.
- **Conditions to avoid** : Sunlight, heat, moisture.
- **Incompatibility (Materials to avoid)** : Strong oxidizers, metals, acids, acid chlorides.
- **Hazardous decomposition products** :
Carbon monoxide, nitrogen oxides, sulfur oxides, phosphor oxides and sodium compounds may be formed.
- **Hazardous polymerization** : Will not occur.

11. TOXICOLOGICAL INFORMATION

- **Acute toxicity data** : Not available as the mixture
 - ③= LD50 (oral, rat) : 36700 uL/kg
 - ④= LDLo (oral, human) : 20 mg/kg
 - LD50 (oral, rat) : 2600 mg/kg
 - ⑤= LDLo (oral, rat) : 4640 mg/kg
 - ⑥= LD50 (oral, rat) : 3 gm/kg
 - LD50 (inhalation, rat) : >42 gm/m³/1hour
 - ⑦= LD50 (oral, rat) : 17 gm/kg
 - ⑨= LD50 (oral, rat) : 2140 mg/kg
 - LC50 (inhalation, mouse) : 320 mg/m³/2H
- **Irritation data** : Not available as the mixture
 - ③= Skin : human ; 15 mg/3day (Mild)
 - ④= Eye : rabbit ; 500 mg/24hour (Mild)
 - ⑤= Skin : rabbit ; >4640 mg/kg

- ⑥= Skin : rabbit ; 50 mg/24hours (Mild)
Eye : rabbit ; 100 mg/24hour (Moderate)
- ⑦= Skin : rabbit ; 500 mg/24hours (Mild)
Eye : rabbit ; 500 mg/24hour (Mild)
- ⑨= Eye : rabbit ; 5 mg/30seconds (Severe)

12. ECOLOGICAL INFORMATION

- **Biodegradability** : Not available
- **Bioaccumulation potential** : Not available
- **Aquatic toxicity** : ⑨= LC50 (prawns) : 42.5 ppm/48hours (saltwater)
- **Other data** : Not available

13. DISPOSAL CONSIDERATIONS

【7】 : Cautiously add to a large stirred excess of water. Adjust the pH to neutral, separate any insoluble solids or liquids and package them for hazardous-waste disposal. Flush the aqueous solution down the drain with plenty of water. Any disposal must be in compliance with local, state, and federal laws and regulations (contact local or state environmental agency specific rules).

Other reagents: Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber in accordance with all applicable regulations. Any disposal must be in compliance with local, state, and federal laws and regulations (contact local or state environmental agency specific rules).

14. TRANSPORT INFORMATION

- **UN-Number** : 【7】 ; UN2796 (Sulfuric acid with not more than 51% acid)
- **UN-Classification** : 【7】 ; Class8 (Corrosive, Package group II)

15. REGULATORY INFORMATION

- **Labelling according to Japan guidelines:**

Sulphuric acid is indicated as a deleterious substance by Poisonous and Deleterious Substances Control Law in Japan (exempts below concentration 10 %).

This product is exempted from deleterious substances.

16. OTHER INFORMATION

No specific notes

The above information is believed to be correct to be the best of our knowledge and information but does not purport to be all inclusive and shall be used only as a guide.

This product is intended to be used by expert persons having chemical knowledge and skill, at their own discretion

and risk and TransGenic Inc. shall not be held liable for any damage resulting from handling or from contact with the above material.