

Material Safety Data Sheet

Free T4 ELISA

1. IDENTIFICATION OF THE PREPARATION AND COMPANY NAME.

Product Name: Free T4 ELISA
Catalog No: 3146-15
Synonyms: N/A
Intended Use: Laboratory Use

2. Information on product/preparation composition

The product contains the following hazardous substances and those with the following highest permissible concentrations in the working environment:

A. fT4 Calibrators (human sera with determined fT4 concentrations)

Identification numbers statements	Chemical name of substance	Concentrations	Risk and safety
CAS: 2682-20-4 EC (EINECS): 220-239-6 Merck Index:	2-Methyl-4-isothiazolin-3-one	0.015 %	R22-34-43
CAS: 30007-47-7 EC (EINECS): 250-001-7 Merck Index:	5-Bromo-5-nitro-1, 3-dioxane (BND)	0.015 %	R21/22

B. fT4 Enzyme Reagent (fT4 analog coupled to horse radish peroxidase enzyme, in stabilizing solution)

Identification numbers statements	Chemical name of substance	Concentrations	Risk and safety
CAS: 2682-20-4 EC (EINECS): 220-239-6 Merck Index:	2-Methyl-4-isothiazolin-3-one	0.015 %	R22-34-43
CAS: 30007-47-7 EC (EINECS): 250-001-7 Merck Index:	5-Bromo-5-nitro-1, 3-dioxane (BND)	0.015 %	R21/22

C. Microtiter strips (96 wells, coated with purified sheep Anti-IgG, vacuum sealed)

Identification numbers statements	Chemical name of substance	Concentrations	Risk and safety
CAS: 7558-79-4 EC (EINECS): Merck Index: None	Sodium Phosphate Dibasic	0.015 %	R22-34-43, S26
CAS: 26628-22-8 EC (EINECS): Merck Index: None	Sodium Azide	>0.01%	R20/21/22, S23, S24/25, S26, S28.1

D. Wash solution concentrate (10x)

<i>Identification numbers statements</i>	<i>Chemical name of substance</i>	<i>Concentrations</i>	<i>Risk and safety</i>
CAS: 2682-20-4 EC (EINECS): 220-239-6 Merck Index:	2-Methyl-4-isothiazolin-3-one	0.015 %	R22-34-43
CAS: 30007-47-7 EC (EINECS): 250-001-7 Merck Index	5-Bromo-5-nitro-1, 3-dioxane (BND)	0.015 %	R21/22

E. Substrate A solution

<i>Identification numbers</i>	<i>Chemical name of substance</i>	<i>Concentrations</i>	<i>Risk and safety statements</i>
CAS: 54827-17-7 S26-36/37 EC (EINECS): 259-364-6 Merck Index: None	3,3',5,5'-Tetramethylbenzidine	< 1 %	R20/21/22-36/37/38-40,
CAS: 67-68-5 EC (EINECS): 200-664-3 Merck Index: 12,3308	Dimethylsulfoxide	< 1 %	R36/37/38, S23-26-36

F. Substrate B solution

<i>Identification numbers</i>	<i>Chemical name of substance</i>	<i>Concentrations</i>	<i>Risk and safety statements</i>
CAS: 67-68-5 EC (EINECS): 200-664-3 Merck Index: 12,3308	Dimethylsulfoxide	< 1 %	R36/37/38, S23-26-36
CAS: 10384-4 EC (EINECS): 203-424-6 Merck Index: None	Acetanilide	< 1 %	R36/R37/R38, S26-36
CAS: 124-43-6 EC (EINECS): 204-701-4 Merck Index: None	Urea Hydrogen-peroxide	< 0.05 %	R8-34 , S17-26-36/37/39-45

G. Stop solution

<i>Identification numbers</i>	<i>Chemical name of substance</i>	<i>Concentrations</i>	<i>Risk and safety statements</i>
CAS: 7647-01-0 EC (EINECS): 231-59-7 Merck Index:	Hydrochloric acid	< 3 %	R36/37/38, S26

Risk symbols

T+ Very toxic
Xi Irritant
C Corrosive

Risk phrases

R20/21/22 Harmful by inhalation, in contact with skin and if swallowed
R21/22 Harmful in contact with skin and if swallowed
R22 Harmful if swallowed
R26/27/28 Very Toxic by inhalation, in contact with skin and if swallowed
R28 Very Toxic if swallowed

- R32 Releases very toxic gas in contact with acids
- R33 Danger of cumulative effects
- R34 Causes burns
- R36/37/38 Irritating to eyes, respiratory system and skin
- R40 Possible risk of irreversible effects
- R43 May cause sensitization by skin contact

Safety phrases

- S13 Keep away from food, drink and animal feeding stuffs
- S23 Do not breath spray
- S24/25 Avoid contact with skin and eyes
- S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
- S28.1 After contact with skin, wash immediately with plenty of water
- S30 Never add water to this product
- S36 Wear suitable protective clothing
- S36/37 Wear suitable protective clothing and gloves
- S45 In case of accident or if you feel unwell, seek medical advice immediately (show label where possible)

3. Substance/preparation hazards data

When used, the most adverse impacts of the substance/preparation on human health include:

The followed components can damage health if ingested and/or can irritate eyes and skin: Stop solution, Streptavidin-HRP

Conjugate, Substrate (TMB) solution, Human Calibrators, Wash solution concentrate. The Stop solution contains hydrochloric acid in total concentration < 5% and is not classified as “Corrosive” or “Irrigating”. The Quality controls (Human serum matrix calibrators) contain thimerosal and ε-aminocaproic acid in total concentrations < 0.1% and are classified as “Harmful”. The Quality controls are based on HIV-1, HIV-2 and HbsAg negative human sera and must be handled as potentially infectious material. The Wash solution concentrate contains thimerosal in total concentration < 0.1% and is classified as “Harmful”.

4. First aid instructions

General instructions: Immediately rinse with soap and plenty of water. Use personal protective working aids.

If inhaled: Transport the affected person into the open air. When there are respiratory complaints, oxygen must be administered. When irritation persists, seek medical advice.

In case of skin contact: The contaminated clothing and footwear must be taken off, the affected skin must be rinsed with plenty of water. Use soap to completely remove the substance. When irritation persists, seek medical advice.

In case of contact with eyes: Remove contact lenses. Rinse with a stream of water for at least 15 minutes. Thorough rinsing must be ensured by opening the eyelids using sterile (clean) fingers. When irritation persists, seek medical advice.

If ingested: Rinse the mouth, administer a big amount of water to dilute the substance. In the case of unconsciousness, never administer anything orally. Seek medical advice.

5. Extinguishing measures

Suitable fire-extinguishing media: Carbon dioxide, dry powder, foam, water.

Thermal decomposition: No thermal decomposition degradation products are expected.

Special hazards: None.

Special protective means for firemen: None.

6. Incidental leakage measures:

Safety measures to protect humans: Avoid contact with skin and eyes.

Environmental safety measures: Avoid penetration into sewerage systems, surface and ground water.
Avoid soil pollution.

Recommended cleaning and disposal methods: Cover with suitable absorbing material. After removing the substance, rinse the spot of spilling thoroughly with water and soap.

7. Handling and storage instructions:

Handling instructions: Avoid contact with skin, eyes and clothing. Use suitable protective means to work with the substance.

Storage instructions: Store at temperatures between + 2 and + 8°C in a dry and dark place.

8. Exposition checking and protection of persons:

Technical measures: Do not eat, drink and smoke when working with the kit. Use the kit only in rooms enabling good ventilation.

Local exhaustion is necessary, general (forced) exhaustion is recommended.

Personal protective means – protection of respiratory organs: None

Personal protective means – eye protection: Protective glasses

Personal protective means – hand protection: Protective gloves (wash your hands before and after work)

Personal protective means – body protection: Protective clothing

9. Physical/chemical properties

State (at 20°C):

Solid: Microtiter strips

Liquids: Calibrators, Enzyme reagent, Wash solution concentrate, Substrate solutions, Stop solution

Colour:

Green: Enzyme reagent

Colourless: Stop solution, Wash solution concentrate, Substrate solutions

Creamy to white: Calibrators

Smell (odour): Odourless

pH value (at 25°C): Stop solution: < 1

Others: 6.8 - 7.4

Melting temperature (temperature range) (°C): No data available.

Boiling temperature (temperature range) (°C): No data available.

Flash point (°C): No data available.

Inflammability: No data available.

Vapour tension (°C): No data available.

Water solubility: Soluble.

Partition coefficient a-octanol/water: No data available.

10. Stability and reactivity

Conditions to be avoided: Heat

Substances and materials with which the product is not allowed to get in touch: Acids

Hazardous decomposition products: Not known

Other data: No hazardous polymerization

11. Toxicological information

The product contains ϵ -aminocaproic acid in total concentration 0.03%, thimerosal in total concentration 0.05% and sulfuric acid in total concentration 1.96%.

Acute toxicity-LD50 orally, rat (mg/kg): Not known

Acute toxicity-LD50 dermally, rat or rabbit (mg/kg): Not known

Acute gingivostomatitis LD50: Not known

Acute toxicity-LD50 inspiration: Not known

Irritability: No data available

Mutagenicity: No data available

Reproduction toxicity: No data available

Tests on animals: No data available

Other data: Sodium azide damages centre neural system, it causes tachycardia, it reduces hemic pressure, abbreviates respiration, causes headache, vomiting and nausea.

12. Environmental information

Water hazard class: 2 (water-damaging substances)

13. Disposal Information

The manner of disposing the substance/preparation:

Mix or dissolve the material in a combustible solvent and burn up in a facility whose equipment matches all regulations in effect.

Every waste disposal must be carried out in coincidence with national and local legislation or administrative regulations respectively.

Packages:

In coincidence with local legislation, or administrative regulations respectively.

14. Transportation information

Overland transportation (ADR/RID): As a mixture, the substance is subject to no limitations.

Transatlantic transportation (IMDG): As a mixture, the substance is subject to no limitations.


Air transportation (ICAO/IATA): As a mixture, the substance is subject to no limitations.

15. Information on legal regulations

According to the Act No. 157/1998 Coll. on chemical substances and chemical preparations and on amendments in some other laws and acts, components contained in the Diagnostic Automation, Inc. ELISA kits are non-hazardous substances in said concentrations. Diagnostic Automation, Inc. ELISA kit is subject to special marking regulations according to the EC regulations (28/10/1999).

16. Additional information

The material safety data sheet contains data necessary to ensure safety and health and environmental protection in working with chemical substances. The above-stated data match the contemporary state of knowledge and experience and are in coincidence with legal regulations currently in effect. This product is a chemical substance and can be solely used by persons with chemical education at their own risk. Diagnostic Automation, Inc. kits are designed for biomedical research. The manufacturer has no responsibility for damage caused by unsuitable use and by disrespecting the enclosed working instructions. The above-stated information cannot be considered as complete and must be understood to be only a methodical instruction.

<p>ISO 13485 ISO 9001</p> 	
Date Adopted	2016-05-20
REF 3146-15	AccuDiag™ - Free T4 ELISA
EC REP	<p>CEpartner4U, Esdoornlaan 13, 3951DB Maarn. The Netherlands.</p> <p>www.cepartner4u.eu</p>
Revision Date: 2010-12-01	