

TMB substrate

MATERIAL SAFETY AND DATA SHEET

Section 1 Chemical Product and Company Identification	
Name	TMB Check Substrate Cat.#UPS08171, UPS08172, UPS08173
Synonyms (CAS, chemical names, tradename, abbreviates...)	HRP substrate for ELISA, using 3,3',5,5'-tetramethylbenzidine Dihydrochloride
Company identification	UPTIMA-INTERCHIM 213 J.F.Kennedy, 03100 Montluçon (FRANCE) Tel.+33 (0)4 70 03 88 55 Fax +33 (0)4 70 03 82 60 e-mail uptima@interchim.com
In case of Emergency	In Europe: Call UPTIMA-INTERCHIM Tel.+33 (0)4 70 03 88 55 out of office: Centre anti Poisons de Lyon Tel. 04 72 11 69 11 In US: call CHEMTREC Tel. 800;424;9300

Section 2 Composition, Information on Ingredients		
Component	CAS number	Weight (mMol/L)
3,3',5,5'-tetramethylbenzidine Dihydrochloride	64285-73-0	1.045 Xn;R22 N;R51/53 *
Hydrogen Peroxide	124-43-6	5.315 Not hazardous*
Water	7732-18-5	Not hazardous*
Proprietary Ingredients		Not hazardous*

Section 3 Hazards Identification	
Health Hazards	Hazardous risks are low, and limited in intended use (immunoassays) – See section 15 May be irritant to eyes and skin

Section 4 First aid Measures	
Inhalation	Allow the victim to rest in a well ventilated area, Seek medical attention
Eyes contact	Wash thoroughly (>15min) with copious amounts of water or salt water. Remove contact lenses. Seek medical attention if irritation persists.
Skin contact	Remove contaminated clothing and wash with water and soap.
Ingestion	Rinse mouth and drink plenty water. Keep under surveillance. Seek medical attention.
Notes to physicians	Treat symptomatically

Section 5 Fire Fighting Measures	
Flammability	No combustible; aqueous solution
Extinguishing media	Use suitable extinguishing media for surrounding fire: Foam, Alcohol Foam, dry chemicals, CO2 and Water/Fog
Comments	When heated to dryness the product may form hazardous decomposition products. When extinguishing fires use breathing apparatus with an independent source of air.

Section 6 Accidental Release Measures	
Personal precautions	Provide for sufficient ventilation/respiratory protection.
Environmental precautions	Do not empty into drains. If large amounts of the product contaminates sewages, inform appropriate authorities in accordance with local regulations.
Spills and Leaks	Contain spill and then clean up with copious amounts of water. Avoid contact with skin.

Section 7 Handling and Storage	
Storage	Store +4°C. Protected against light.
handling	see section 8.

Section 8 Exposure Controls, Personal Protection	
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MSDS-S08170	
Personal protection (eyes, hands, body, respiratory...)	Direct contact with the product may result in eye irritation and skin irritation. Wear safety goggles when risk of splashes and use gloves of plastic or rubber when risk of contact. Respiratory protection is not required if good ventilation is maintained. Wear a NIOSH/MSHA approved respirator suitable if high or prolonged exposure to vapor or mist concentrations.

Section 9 Physical and Chemical Properties	
Appearance	Clear, colorless to light blue green solution
Other (pH, Melting/Freezing Point, Vapor Pressure, Vapor Density, Volatility, Boiling Point, Viscosity, Flash point, Auto-ignition temperature, Explosion limits (low.Upp.), Specific Gravity / Density, Molecular Formula /MW, CAS...)	Melting or Freezing Point: <0°C/32°F Boiling Point: >100°C/212°F Solubility in water: dilutable Density: about 1

Section 10 Stability and Reactivity	
Chemical Stability	This product is stable under normal storage and handling conditions.
Hazardous decomposition product	When heated to dryness the product may form hazardous decomposition products.
Hazardous polymerization	Will not occur
Incompatibility Materials to avoid	Strong oxidizing agents, acid chlorides, acid anhydrides

Section 11 Toxicological Information	
Toxicology data	Not available / risks are very low under recommended use. For TMB /high concentrations: -acute: may give irritation of eyes, skin, gastrointestinal tract (ingestion). -chronic: Not available. May cause reproductive disorders Possible mutagenic effects (shown in mice)

Section 12 Ecological Information	
Ecotoxicity (BOD5, COD..., Biodegradation, Mobility	Not available / risks are very low under recommended use. For TMB /high concentrations: toxic to aquatic organisms (EC50: 1-10mg/ml); Miscible with water; Not readily biodegradable. Bioaccumulative potential LogK _{ow} : 4.11
Remarks	Avoid empty into waters or drains.

Section 13 Disposal Considerations	
Remarks	Observe your local or regional rules for proper disposal. If regulated, consult your local or regional authority or a licensed professional waste service

Section 14 Transport Information	
Shipping	Room temperature Not regulated for transportation

Section 15 Regulatory Information	
Classification Europe	Not classified according to EEC directives 88/379/EEC (as evaluated on 12 Dec.2005)
Precautionary Statement	R: 22-51/53 Harmful if swallowed; Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment S: 36/37 Wear suitable protective clothing and gloves

Section 16 Additional Information	
MSDS validation	UPTIMA-INTERCHIM, I05E-A0701VB
Comment	<i>The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no way shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if the company has been advised of the possibility of such damages</i>