

## Material Safety Data Sheet according to 91/155/EEC

### 1. Product and Company Information

Product Name	TMB SOLUTION VII
Product Number	TMB-S-004
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### 2. Composition/Information on ingredients

% w/w	Chemical Name	CAS no.	Classification
< 1	3,3',5,5'-Tetramethylbenzidin (TMB)	54827-17-7	Xn;R22 N;R51/53
> 98	Water	7732-18-5	-

### 3. Hazards identification

#### Particular information pertaining specific risk for human and environment

The health risk is low – see section 15.

### 4. First-aid measures

#### Eye contact

Flush thoroughly with water or physiological salt water. Remember to remove contact lenses. If irritation persists, seek medical advice.

#### Skin Contact

Remove contaminated clothing and wash with water and soap.

#### Inhalation

Go to fresh air. Keep at rest. If person feels queasy/discomfort, seek medical advice.

#### Ingestion

Rinse mouth and drink plenty of water. Keep under surveillance. If person feels queasy/discomfort, seek medical advice.

#### Information

Show this Safety Data Sheet to a physician or emergency ward.

### 5. Fire-fighting measures

#### Flammability

Not combustible; aqueous solution.

#### Extinguishing media – suitable

Use suitable extinguishing media for surrounding fire.

#### Extinguishing media – NOT suitable

-

#### Special risks in a fire situation

When heated to dryness the product may form hazardous decomposition products.

### **Protective equipment**

When extinguishing fires use breathing apparatus with an independent source of air.

### **Additional information**

-

## **6. Accidental release measures**

### **Personal precautions**

Provide for sufficient ventilation/respiratory protection. See protective equipment listed in section 8.

### **Environment precautions**

Do not empty into drains. If large amount of the product contaminates sewages, inform appropriate authorities in accordance with local regulations.

### **Methods for cleaning up/collecting**

Absorb spilled liquid and place spillage in a plastic container.

## **7. Handling and storage**

### **Safe handling**

See section 8.

### **Safe storage**

At 4°C. Keep container tightly closed when not in use. Protect against light.

## **8. Exposure controls and personal protection**

### **Engineering measures (prevention of worker exposure)**

Avoid contact with skin and eyes.

### **Personal protective equipment**

Eye protection: Wear safety goggles when at risk of splashes.

Skin protection: Wear plastic or rubber gloves.

Respiratory protection: None.

## **9. Physical and chemical properties**

**Appearance:** Clear, colourless or tiny blue or very pale yellow liquid

**Odour:** Odourless

**Boiling point (°C):** Approximately 100

**Flash point (°C):** -

**Density (g/ml) at 20°C:** Approximately 1

**Solubility in water:** Miscible

## **10. Stability and reactivity**

### **Stability**

-

### **Conditions to avoid**

-

### **Materials to avoid**

-

### **Hazardous decomposition products**

When heated to dryness the product may form hazardous decomposition products.

## **11. Toxicology information**

**Routes of exposure:** May be absorbed through ingestion.

### **Acute toxicity:**

**Eyes:** May cause irritation.

**Skin:** May cause irritation

**Inhalation:** Inhalation is not possible when used as recommended

**Ingestion:** May cause irritation of the gastrointestinal tract.

**Long term toxicity:** TMB has shown a possible mutagenic effect in experimental animals (mice).

## **12. Ecological information**

### **Mobility:**

-

**Degradability:**

TMB is not readily biodegradable

**Accumulation:**

The calculated log  $P_{ow}$  of TMB is 4.11 and TMB is therefore suspected to accumulate.

**Short and long term effects:**

TMB is toxic to aquatic organisms, and may cause long-term adverse effects in the aquatic environment.

**Other adverse effects:**

Use of the product can involve external environmental pollution. Do not empty into waters or drains.

### 13. Disposal considerations

Disposal should be according to local, state or national legislation. Dispose of through authority facilities or pass to chemical disposal company.

**EWC-code:** 16 05 03

### 14. Transport information

**Road/Rail (ADR/RID)**

Class:-

UN No.:-

Proper Shipping Name:-

Item No.:-

Letter:-

**Sea (IMDG)**

IMDG Class:-

UN No.:-

MFA Gr:-

Pack. Group:-

IMDG Page No.:-

MARPOL:-

EmS:-

**Air (ICAO/IATA)**

ICAO Class:-

ICAO UN No.:-

### 15. Regulatory information

**Classification according to EEC directives**

It has been evaluated that the preparation is not to be classified according to EEC directive 88/379/EEC.

**Danger symbol and danger designation:** None

**Risk-phrases:** -

**Safety-phrases:** -

**EINECS no.:** -

### 16. Other information

**Use**

For research and analysis (ELISA).

**Restriction on application**

-

**Requirements concerning special training**

No special training is anticipated; however, the user should be well instructed for the execution of his task, have knowledge of this Safety Data Sheet and normal training in the use of personal protective equipment.

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