



## SAFETY DATA SHEET

### TETRAMETHYLRHODAMINE METHYL ESTER PERCHLORATE

#### SECTION 1: Identification of the substance/mixture and of the company/undertaking

##### 1.1. Product identifier

**Product name** TETRAMETHYLRHODAMINE METHYL ESTER PERCHLORATE  
**Synonyms; trade names** TMRM  
**CAS number** 115532-50-8

##### 1.2. Relevant identified uses of the substance or mixture and uses advised against

**Identified uses** For research use only.

##### 1.3. Details of the supplier of the safety data sheet

**Supplier** Web: [www.bio-rad-antibodies.com](http://www.bio-rad-antibodies.com)  
Bio-Rad  
Endeavour House  
Langford Business Park  
Kidlington  
Oxford  
OX5 1GE  
[antibody\\_safetydatasheets@bio-rad.com](mailto:antibody_safetydatasheets@bio-rad.com)

**Contact person** Technical Services Manager

##### 1.4. Emergency telephone number

**Emergency telephone** Tel. +44 (0) 1865 852700 (9.00 a.m. - 5.00 p.m. Mon-Fri)

#### SECTION 2: Hazards identification

##### 2.1. Classification of the substance or mixture

###### Classification (EC 1272/2008)

**Physical hazards** Not Classified  
**Health hazards** Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 STOT SE 3 - H335  
**Environmental hazards** Not Classified

**Classification (67/548/EEC or 1999/45/EC)** Xi;R36/37/38.

##### 2.2. Label elements

###### Pictogram



**Signal word** Warning

## TETRAMETHYLRHODAMINE METHYL ESTER PERCHLORATE

<b>Hazard statements</b>	H315 Causes skin irritation. H319 Causes serious eye irritation. H335 May cause respiratory irritation.
<b>Precautionary statements</b>	P261 Avoid breathing dust. P264 Wash contaminated skin thoroughly after handling. P271 Use only outdoors or in a well-ventilated area. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P302+P352 IF ON SKIN: Wash with plenty of water. P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P312 Call a POISON CENTRE/doctor if you feel unwell. P332+P313 If skin irritation occurs: Get medical advice/ attention. P337+P313 If eye irritation persists: Get medical advice/ attention. P362+P364 Take off contaminated clothing and wash it before reuse. P403+P233 Store in a well-ventilated place. Keep container tightly closed. P405 Store locked up. P501 Dispose of contents/ container in accordance with national regulations.
<b>Supplementary precautionary statements</b>	P321 Specific treatment (see medical advice on this label).

### 2.3. Other hazards

No data available.

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

<b>Product name</b>	TETRAMETHYLRHODAMINE METHYL ESTER PERCHLORATE
<b>CAS number</b>	115532-50-8

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

<b>General information</b>	Get medical attention if any discomfort continues.
<b>Inhalation</b>	Move affected person to fresh air at once. Rinse nose and mouth with water. If breathing stops, provide artificial respiration. Get medical attention if any discomfort continues.
<b>Ingestion</b>	Never give anything by mouth to an unconscious person. Do not induce vomiting. Rinse mouth thoroughly with water. Get medical attention if any discomfort continues.
<b>Skin contact</b>	Remove affected person from source of contamination. Remove contaminated clothing. Wash skin thoroughly with soap and water. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.
<b>Eye contact</b>	Remove affected person from source of contamination. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Continue to rinse for at least 15 minutes. Get medical attention if irritation persists after washing.

### 4.2. Most important symptoms and effects, both acute and delayed

<b>General information</b>	The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
<b>Inhalation</b>	Dust may irritate the respiratory system. Symptoms following overexposure may include the following: Coughing.
<b>Ingestion</b>	May cause discomfort if swallowed.

## TETRAMETHYLRHODAMINE METHYL ESTER PERCHLORATE

<b>Skin contact</b>	Skin irritation.
<b>Eye contact</b>	May cause severe eye irritation.

### **4.3. Indication of any immediate medical attention and special treatment needed**

<b>Notes for the doctor</b>	No specific recommendations.
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## **SECTION 5: Firefighting measures**

### **5.1. Extinguishing media**

<b>Suitable extinguishing media</b>	Extinguish with the following media: Water spray, foam, dry powder or carbon dioxide.
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### **5.2. Special hazards arising from the substance or mixture**

<b>Specific hazards</b>	No data available.
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### **5.3. Advice for firefighters**

<b>Special protective equipment for firefighters</b>	Wear chemical protective suit. Use protective equipment appropriate for surrounding materials.
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## **SECTION 6: Accidental release measures**

### **6.1. Personal precautions, protective equipment and emergency procedures**

<b>Personal precautions</b>	Avoid contact with skin or inhalation of spillage, dust or vapour. Wear protective clothing as described in Section 8 of this safety data sheet. If ventilation is inadequate, suitable respiratory protection must be worn.
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### **6.2. Environmental precautions**

<b>Environmental precautions</b>	Avoid discharge into drains or watercourses or onto the ground.
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### **6.3. Methods and material for containment and cleaning up**

<b>Methods for cleaning up</b>	Collect and place in suitable waste disposal containers and seal securely. Label the containers containing waste and contaminated materials and remove from the area as soon as possible. If involved in a fire, shut off flow if it can be done without risk. Avoid the spillage or runoff entering drains, sewers or watercourses.
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### **6.4. Reference to other sections**

<b>Reference to other sections</b>	For waste disposal, see section 13.
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## **SECTION 7: Handling and storage**

### **7.1. Precautions for safe handling**

<b>Usage precautions</b>	Avoid inhalation of dust and contact with skin and eyes. Provide adequate ventilation.
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### **7.2. Conditions for safe storage, including any incompatibilities**

<b>Storage precautions</b>	Store at specified temperature. Refer to product label.
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### **7.3. Specific end use(s)**

<b>Specific end use(s)</b>	The identified uses for this product are detailed in Section 1.2.
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## **SECTION 8: Exposure Controls/personal protection**

### **8.1. Control parameters**

<b>Ingredient comments</b>	WEL = Workplace Exposure Limits
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### **8.2. Exposure controls**

## TETRAMETHYLRHODAMINE METHYL ESTER PERCHLORATE

### Protective equipment



### Appropriate engineering controls

Provide adequate ventilation.

### Eye/face protection

Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. The following protection should be worn: Chemical splash goggles or face shield.

### Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible.

### Other skin and body protection

Wear appropriate clothing to prevent any possibility of skin contact.

### Hygiene measures

Provide eyewash station. Do not smoke in work area. Wash at the end of each work shift and before eating, smoking and using the toilet. Promptly remove any clothing that becomes contaminated. Use appropriate skin cream to prevent drying of skin. When using do not eat, drink or smoke.

### Respiratory protection

No specific recommendations. If ventilation is inadequate, suitable respiratory protection must be worn.

## SECTION 9: Physical and Chemical Properties

### 9.1. Information on basic physical and chemical properties

Appearance	Dusty powder.
Colour	Various colours.
Odour	No data available.
Odour threshold	Not determined.
pH	Not determined.
Melting point	Not determined.
Initial boiling point and range	Not determined.
Flash point	Not determined.
Evaporation rate	Not determined.
Upper/lower flammability or explosive limits	Not determined.
Vapour pressure	Not determined.
Vapour density	Not determined.
Relative density	Not determined.
Solubility(ies)	No data available.
Partition coefficient	Not determined.
Auto-ignition temperature	Not determined.
Decomposition Temperature	Not determined.
Viscosity	Not determined.

## TETRAMETHYLRHODAMINE METHYL ESTER PERCHLORATE

**Explosive properties** Not determined.

**Oxidising properties** Not determined.

### 9.2. Other information

**Other information** No data available.

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

**Reactivity** No data available.

### 10.2. Chemical stability

**Stability** No data available. Stable at normal ambient temperatures.

### 10.3. Possibility of hazardous reactions

**Possibility of hazardous reactions** 7.2

### 10.4. Conditions to avoid

**Conditions to avoid** Avoid exposure to high temperatures or direct sunlight.

### 10.5. Incompatible materials

**Materials to avoid** Strong oxidising agents.

### 10.6. Hazardous decomposition products

**Hazardous decomposition products** No data available. Fire creates: Vapours/gases/fumes of: Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>). Nitrous gases (NO<sub>x</sub>). Hydrogen chloride (HCl).

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

**Toxicological effects** No information available.

### Serious eye damage/irritation

**Serious eye damage/irritation** Not determined.

### Germ cell mutagenicity

**Genotoxicity - in vitro** Not determined.

### Carcinogenicity

**Carcinogenicity** IARC Not Listed.

### Reproductive toxicity

**Reproductive toxicity - fertility** Not determined.

### Specific target organ toxicity - single exposure

**STOT - single exposure** May cause respiratory system irritation.

### Specific target organ toxicity - repeated exposure

**STOT - repeated exposure** Not determined.

### Aspiration hazard

**Aspiration hazard** Not determined.

**Inhalation** Harmful by inhalation. Irritation of nose, throat and airway.

## TETRAMETHYLRHODAMINE METHYL ESTER PERCHLORATE

<b>Ingestion</b>	Harmful if swallowed.
<b>Skin contact</b>	Harmful in contact with skin. May cause sensitisation by skin contact.
<b>Eye contact</b>	May cause severe eye irritation.

### SECTION 12: Ecological Information

**Ecotoxicity** No data on possible environmental effects have been found.

#### 12.1. Toxicity

**Toxicity** No data available.

#### 12.2. Persistence and degradability

**Persistence and degradability** There are no data on the degradability of this product.

#### 12.3. Bioaccumulative potential

**Bioaccumulative potential** No data available on bioaccumulation.

**Partition coefficient** Not determined.

#### 12.4. Mobility in soil

**Mobility** No data available.

#### 12.5. Results of PBT and vPvB assessment

**Results of PBT and vPvB assessment** No data available.

#### 12.6. Other adverse effects

**Other adverse effects** No data available.

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

**General information** When handling waste, the safety precautions applying to handling of the product should be considered.

**Disposal methods** Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

### SECTION 14: Transport information

**General** The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

**Road transport notes** Not classified.

**Rail transport notes** Not classified.

**Sea transport notes** Not classified.

**Air transport notes** Not classified.

#### 14.1. UN number

Not applicable.

**UN No. (ADR/RID)** 3082

#### 14.2. UN proper shipping name

Not applicable.

## TETRAMETHYLRHODAMINE METHYL ESTER PERCHLORATE

### 14.3. Transport hazard class(es)

Not applicable.

### 14.4. Packing group

Not applicable.

### 14.5. Environmental hazards

**Environmentally hazardous substance/marine pollutant**

No.

### 14.6. Special precautions for user

Not applicable.

### 14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

**Transport in bulk according to** Not applicable.

**Annex II of MARPOL 73/78  
and the IBC Code**

## SECTION 15: Regulatory information

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

**EU legislation** Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).

**Guidance** Workplace Exposure Limits EH40.  
Safety Data Sheets for Substances and Preparations.  
Approved Classification and Labelling Guide (Sixth edition) L131.

### 15.2. Chemical safety assessment

No data available.

## SECTION 16: Other information

<b>Revision date</b>	02/04/2019
<b>Revision</b>	4
<b>Supersedes date</b>	16/11/2016
<b>SDS number</b>	20300
<b>Risk phrases in full</b>	R36/37/38 Irritating to eyes, respiratory system and skin.
<b>Hazard statements in full</b>	H315 Causes skin irritation. H319 Causes serious eye irritation. H335 May cause respiratory irritation.

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.