

# MATERIAL SAFETY DATA SHEET

## TMTES-pentacene



### 1. Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product Details

Product Code : M241  
Name : 1,4,8,11-tetramethyl-6,13-triethylsilylethynyl pentacene  
REACH No. : A registration number is not available for this substance as the substance or its uses are exempted from registration or the annual tonnage does not require a registration.

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

Identified uses : Laboratory chemicals

#### 1.3. Supplier details

Supplied by : Ossila Limited  
Kroto Innovation Centre  
Broad Lane, Sheffield  
S3 7HQ, UK  
Telephone : 0114 213 2770  
Email address : info@ossila.com

### 2. Hazards identification

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

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.  
This substance is not classified as dangerous according to Directive 67/548/EEC.  
The substance has not been fully tested. As precautionary measure consider to be an irritant to eyes, skin and respiratory system.

#### 2.2. Label elements

The product does not need to be labelled in accordance with EC directives or respective national laws.

#### 2.3. Other hazards

None.

### 3. Composition/Information on ingredients

#### 3.1. Substances

Synonyms: : TMTES-pentacene  
Formula :  $C_{42}H_{50}Si_2$

No components need to be disclosed according to the applicable regulations.

## **4. First aid measures**

### **4.1. Description of first aid measures**

#### **After Inhalation**

If inhaled, remove to fresh air. If not breathing give artificial respiration. Call a physician.

#### **After skin contact**

In case of skin contact, wash with soap and flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Call a physician.

#### **After eye contact**

In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

#### **After Ingestion**

If swallowed, wash out mouth with water. Call a physician.

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

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11.

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

No data available.

## **5. Fire fighting**

### **5.1. Extinguishing media**

Use agent most appropriate to extinguish fire. In case of small fire, use "alcohol" foam, dry chemical or carbon dioxide. For large fires apply water from as safe a distance as possible. Use very large quantities or spraying water opposed to a solid stream.

### **5.2. Special hazards arising from the substance of mixture**

#### **Hazardous combustion products**

Carbon oxides.

### **5.3. Advice for firefighters**

As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases and vapours may be generated by thermal decomposition.

## **6. Accidental release measures**

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

Wear personal protective equipment. Avoid dust formation. Avoid breathing in vapours, mist, gas or dust. Ensure room is well ventilated.

### **6.2. Environmental precautions**

Do not let product enter drains.

### 6.3. Containment and cleaning:

Contain and clean up spill if safe to do so. Sweep up and shovel without raising dust. Dispose of dry waste in closed container for proper disposal according to local regulations.

## 7. Handling and storage

### 7.1. Precautions for safe handling

Avoid contact with eyes, skin, and clothing. Avoid formation of dust or vapour. Keep away from sources of ignition and avoid the build of electrostatic charge. Provide exhaust ventilation in places where dust is formed. In case of an accident or if you are feeling unwell, immediately seek medical advice.

### 7.2. Conditions for safe storage, including any incompatibilities

Store in a cool, dry and well-ventilated place inside of a tightly sealed container. Product may be light sensitive. Store in the dark.

### 7.3. Specific end uses

Use in laboratories.

## 8. Exposure controls / Personal protection

### 8.1. Control parameters

#### Components with workplace control parameters

Contains no substances with occupational exposure limit values.

#### Biological occupational exposure limits

This product does not contain any hazardous materials with biological limits.

### 8.2. Exposure controls

#### Engineering measures

Handle in accordance with good industrial practices for hygiene and safety. Ensure eyewash stations and safety showers are close to the laboratory workstation.

#### Personal protective equipment

**Eyes:** Wear safety glasses with side-shields conforming to appropriate government standards such as NOISH (US) or EN166 (EU).

**Skin:** Handle with appropriate gloves and use proper glove removal technique to avoid skin contact. Dispose of gloves in accordance with applicable laws. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

**Clothing:** Wear complete suit protecting against chemicals; the type of equipment should be appropriate for the concentration and amount of dangerous substance used.

**Respirators:** A respiratory protection program that meets OSHA's 29 CFR §1910.134 and ANSI Z88.2 requirements or European standard EN 149 must be followed whenever workplace conditions warrant a respirator's use.

#### General hygiene measures

Wash thoroughly after handling. Wash contaminated clothing before reuse.

## 9. Physical and chemical properties

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

Appearance	:	Dark blue/black powder
Odour	:	None
Odour threshold	:	No data available
pH	:	No data available
Melting/freezing point	:	No data available
Flash point	:	No data available
Evaporation rate	:	No data available
Flammability	:	No data available
Explosive limits	:	No data available
Vapour pressure	:	No data available
Vapour density	:	No data available
Relative density	:	No data available
Water solubility	:	No data available
Solubility	:	Chlorobenzene, chloroform, toluene, tetrahydrofuran
Partition coefficient <i>n</i> -octanol/water	:	No data available
Autoignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity	:	No data available
Explosive properties	:	Not explosive
Oxidizing properties	:	Not a strong oxidiser

### 9.2. Other safety information

No data available.

## 10. Stability and reactivity

### 10.1 Reactivity

No data available.

### 10.2. Chemical stability

Stable under normal temperatures and pressures under recommended storage conditions.

### 10.3. Possibility of hazardous reactions

No data available.

### 10.4. Conditions to avoid

Excessive exposure to light.

### 10.5. Incompatible materials

Strong acids and strong oxidising agents.

### 10.6. Hazardous decomposition products

Not determined. Hazardous polymerisation not expected.

## 11. Toxicological information

### 11.1. Information on toxicological effects

#### Acute toxicity

No data available.

#### Skin corrosion/irritation

Based on available data the classification criteria are not met

#### Serious eye damage/eye irritation

No data available.

#### Respiratory or skin sensitization

Based on available data the classification criteria are not met

#### Germ cell mutagenicity

No data available.

#### Carcinogenicity

No data available.

#### Reproductive toxicity

No data available.

#### Specific target organ toxicity - single exposure

No data available.

#### Specific target organ toxicity - repeated exposure

No data available.

#### Aspiration hazard

No data available.

#### Potential health effects

Inhalation	May be harmful if inhaled.
Ingestion	May be harmful if swallowed.
Skin	May cause skin irritation.
Eyes	May causes serious eye irritation.

#### Signs and Symptoms of Exposure

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

## 12. Ecological information

### 12.1. Toxicity

Not determined.

### 12.2. Persistence and degradability

Not determined.

### 12.3. Bioaccumulative potential

Not determined.

### 12.4. Mobility in soil

Not determined.

### 12.5. Results of PBT and vPvB assessment

Not determined.

### 12.6. Other adverse effects

No data available.

## 13. Disposal

### 13.1. Waste treatment methods

#### Product

Burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations and in accordance with European Directives on waste and hazardous waste. Offer surplus material to a licensed professional waste disposal professional.

#### Contaminated packaging

Dispose of as unused product.

## 14. Transport

Non-hazardous for road, air and sea transport.

**IATA:** Not regulated as a hazardous material.

**IMO:** Not regulated as a hazardous material.

**RID/ADR:** Not regulated as a hazardous material.

## 15. Regulatory information

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

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

No data available.

### 15.2 Chemical safety assessment

No chemical safety report/assessment was carried out for this product.

## 16. Other information

### Warranty

This material is for research and development use only. The information provided here is based upon the available information from material suppliers but not warranted as complete and is provided only as a guide. Ossila Limited shall not be held responsible for any damage resulting from use or handling of this product.