Safety Data Sheet

1: Identification of substance / mixture

1. Product Identifier

Substance

Product Name	**Dimethyl thiazolyl diphenyl tetrazolium salt**
Product Code	M92050
CAS Number	298-93-1
Other Names	MTT
IUPAC	
MFCD Number	
EC/EINECS	
REACH Number	Index-No

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

For research and laboratory use only

3. Details of the supplier of the safety data sheet

Melford Laboratories Ltd
Bildeston Road,Chelsworth
Ipswich
Suffolk
IP77LE
UK

Telephone: 01449 741178
Fax: 01449 741217
Email: support@melford.co.uk

4. Emergency telephone number

+44(0)1449 741178 -

2. Hazards Identification

1. Classification of the substance or mixture

H315	Skin Irrit. 2	
H319	Eye Irrit. 2	
H335	STOT SE 3	
H341	Muta. 2	

2. Label elements

Signal Word **Warning**

Hazard Statements

H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H341	Suspected of causing genetic defects ..

Precautionary Phrases

P233	Keep container tightly closed.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P281	Use personal protective equipment as required.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P304 + P340	IF INHALED: Remove victim to fresh air and keep at rest in a position 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.
P332 + P313	If skin irritation occurs: Get medical advice/attention.

3. Other Hazards

Additional precautionary phrases are located throughout the safety data sheet

3. Composition / Information on Ingredients

1. Substances

Product Name	Hazards	Concentration
Dimethyl thiazolyl diphenyl tetrazolium salt		
CAS Number: 298-93-1	H315, H319, H335, H341 Eye Irrit. 2, Muta. 2, Skin Irrit. 2, STOT SE 3	<=100%

4. First Aid Measures

1. Description of first aid measures

Skin Contact
P302 + P352: IF ON SKIN: Wash with plenty of soap and water.
P332 + P313: If skin irritation occurs: Get medical advice/attention.
Wash immediately with plenty of soap and water.
Consult a doctor.

Eye Contact
P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Bathe the eye with running water for 15 minutes.
Ensure adequate flushing by separating the eyelids with fingers
Consult a doctor.

Ingestion
Wash out mouth with water.
Consult a doctor.

Inhalation
P304 + P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
Supply fresh air; consult a doctor in case of complaints.
If not breathing, give artificial respiration.

2. Most important symptoms and effects

The most important known symptoms and effects are described in the labelling and/or in section 11

3. Indication of any immediate medical attention

No data available

5. Firefighting measures

1. Extinguishing Media

Suitable
Water spray.
Carbon dioxide.
Dry chemical powder.
Alcohol or polymer foam.

Unsuitable
No data available

2. Special Hazards arising from the substance or mixture

In combustion emits toxic fumes:
Carbon oxides, nitrogen oxides (NOx), Sulphur oxides, Hydrogen bromide gas

3. Advice for Fire Fighters

Wear self-contained breathing apparatus.
Wear protective clothing to prevent contact with skin and eyes.

6. Accidental Release Measures

1. Personal Precautions

Refer to section 8 of SDS for personal protection details.
Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation.
Evacuate personnel to safe areas. Avoid breathing dust.

2. Environmental Precautions

Do not discharge into drains or rivers.

3. Methods & Materials

Pick up and arrange disposal without creating dust. Sweep up and shovel. Transfer to a closable, labelled salvage container for disposal by an appropriate method.

4. Preventing the occurrence of secondary hazards.

Clean up all spills immediately. Wear suitable PPE.

7.Handling and Storage

1. Personal Precautions

Safe Handling	Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.
Protection against explosions and fires	Normal measures for preventive fire protection.

2. Conditions for safe storage, including any incompatibilities

Managing Storage Risks	Keep container tightly closed. Store under inert gas. Recommended storage 2-8° C.
Storage Controls	Store under inert gas.
Maintaining Integrity	P233: Keep container tightly closed. No special requirements
Other advice	no further information available

3. Specific End Uses

The end use(s) have not been fully determined. The substance is supplied for Research and Development purposes by professionals only.

8. Exposure Controls/Personal Protection

1. Control Parameters

No Data Available

2. Exposure Controls

General protective and hygiene measures	P281: Use personal protective equipment as required. The standard precautionary measures should be adhered to when handling
Engineering measures	Provide appropriate exhaust ventilation at places where dust is formed.
Eye / Face Protection	Safety Glasses with side shields. Ensure eye bath is to hand. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU)
Hand protection	Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. 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
Respiratory protection	P261: Avoid breathing dust/fume/gas/mist/vapours/spray. Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
Skin protection	impervious clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Other personal protection advice	no data available

9. Physical and Chemical Properties

1. Physical and Chemical Properties

Appearance	Solid
Odour	No Data Available
Odour threshold	No Data Available
PH	No Data Available
Melting point / Freezing point	195°C
Initial boiling point and boiling range	No Data Available
Flash point	No Data Available
Evaporation rate	No Data Available
Flammability(solid,gas)	No Data Available
Upper/lower flammability or explosive limits	No Data Available
Vapour pressure	No Data Available
Vapour density	No Data Available
Relative density	No Data Available
Solubility(ies):	No Data Available
Partition coefficient: n-octanol/water	No Data Available
Auto-ignition temperature	No Data Available
Decomposition temperature	No Data Available
Viscosity	No Data Available
Explosive properties	No Data Available
Oxidising properties	No Data Available

2. Other Information

No additional information available

10. Stability and Reactivity

1. Reactivity

no data available

2. Stability

Store under inert atmosphere

3. Possibility of Hazardous Reactions

no data available

4.Conditions to Avoid

Air.
Exposure to moisture may affect product quality.

5. Incompatible Materials

Strong oxidizing agents.

6. Hazardous Decomposition Products

In combustion emits toxic fumes:
Carbon oxides, nitrogen oxides (NOx), Sulphur oxides, Hydrogen bromide gas

11. Toxicology information

1. Information

Acute Toxicity	no data available
Skin corrosion/irritation	no data available
Serious eye Damage/irritation	no data available
Respiratory or skin sensitisation	no data available
Germ Cell mutagenicity	In vitro tests showed mutagenic effects. S. typhimurium Result: positive
Carcinogenicity	IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
Reproductive toxicity	no data available
STOT-single exposure	no data available
STOT-repeated exposure	no data available
Aspiration hazard	no data available

2. Additional

RTECS: XF8060000
To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.

12. Ecological Information

1. Toxicity

no data available

2. Persistence and degradability

no data available

3. Bio-Accumulative Potential

no data available

4. Mobility and Soil

no data available

5. Results of PBT & vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

6. Other adverse effects

no data available

13. Disposal Considerations

1. Waste Treatment Methods

Disposal Operations Consult state, local or national regulations for proper disposal.

Disposal of Packaging Disposal must be made according to official regulations.

14. Transport Information

Air (ICAO)

Not classified as hazardous for transport

Road (ADR)

Not classified as hazardous for transport

Sea (IMDG)

Not classified as hazardous for transport

15. Safety, health, environmental and national regulations

1. Safety, health, environmental and national regulations:

product is not subject to any additional regulations or provisions

2. Safety Assessment

No Chemical Safety Assessment

16. Other Information

1. Other Information:

ADR: Accord Europeen sur le transport des merchandises Dangereuses par Route(European Agreement concerning the International Carriage of Dangerous Goods by road)
RID:Reglement International concernant le transport des merchandises dangereuses par chemin de fer (Regulations concerning the International transport of Dangerous Goods by Rail)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
IATA-DGR: Dangerous Goods Regulations by the International Air Transport Association
ICAO:International Civil Aviation Organization
ICAO-TI: Technical Instructions by the ICAO
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
CAS:Chemical Abstracts Service

3. Disclaimer

The product listed is for research and development purposes only and not for human or animal use. As such, in most cases, the toxicological, ecological and physicochemical properties have not been fully determined and the product should be treated with respect and always handled under suitable conditions by appropriately qualified personnel. The responsible party shall use this datasheet only in conjunction with other sources of information gathered by them, and should make an independent judgement of suitability, to ensure proper use and protect the health and safety of employees. This information is furnished without warranty and any use of the product not in conformance with this material safety data sheet, or in combination with any other product or process, is the responsibility of the user.