

**SAFETY DATA SHEET****Dimethyl Terephthalate**

According to Appendix D, OSHA Hazard Communication Standard 29 CFR §1910.1200

1. Identification**Product identifier**

Product name	Dimethyl Terephthalate
Synonyms; trade names	DMT, Dimethyl-1,4-benzenedicarboxylate
CAS number	120-61-6

Recommended use of the chemical and restrictions on use

Application	Polyester resin.
Uses advised against	No specific uses advised against are identified.

Details of the supplier of the safety data sheet

Supplier	Wego Chemical Group 239 Great Neck Road +1 (516) 487 3510 +1 (516) 487 3794
----------	--

Emergency telephone number

Emergency telephone	(ChemTel) 800 255-3924; INTL 813 248-0585
---------------------	---

2. Hazard(s) identification**Classification of the substance or mixture**

OSHA Regulatory Status	This Product is Hazardous under the OSHA Hazard Communication Standard.
Physical hazards	Not Classified
Health hazards	STOT SE 3 - H335 STOT RE 1 - H372
Environmental hazards	Not Classified

Label elements**Hazard symbols**

Signal word	Danger
-------------	--------

Hazard statements	H335 May cause respiratory irritation. H372 Causes damage to organs (Nervous system, Liver, Respiratory tract, Kidneys) through prolonged or repeated exposure.
-------------------	--



Dimethyl Terephthalate

According to Appendix D, OSHA Hazard Communication Standard 29 CFR §1910.1200

Precautionary statements

P260 Do not breathe dust.
P261 Avoid breathing dust.
P264 Wash contaminated skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P304+P340 If inhaled: Remove person to fresh air and keep comfortable for breathing.
P312 Call a poison center/ doctor if you feel unwell.
P314 Get medical advice/ attention if you feel unwell.
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.

Other hazards

This substance is not classified as PBT or vPvB according to current EU criteria.

3. Composition/information on ingredients

Substances

Product name	Dimethyl Terephthalate
CAS number	120-61-6
Chemical formula	C ₁₀ H ₁₀ O ₄

4. First-aid measures

Description of first aid measures

General information

Get medical attention immediately. Show this Safety Data Sheet to the medical personnel.

Inhalation

Remove affected person from source of contamination. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Maintain an open airway. Loosen tight clothing such as collar, tie or belt. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Place unconscious person on their side in the recovery position and ensure breathing can take place.

Ingestion

Never give anything by mouth to an unconscious person. Rinse mouth thoroughly with water. Give a few small glasses of water or milk to drink. Stop if the affected person feels sick as vomiting may be dangerous. Do not induce vomiting unless under the direction of medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Place unconscious person on their side in the recovery position and ensure breathing can take place. Maintain an open airway. Loosen tight clothing such as collar, tie or belt.



Dimethyl Terephthalate

According to Appendix D, OSHA Hazard Communication Standard 29 CFR §1910.1200

Skin Contact	Rinse with water.
Eye contact	Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 10 minutes.
Protection of first aiders	First aid personnel should wear appropriate protective equipment during any rescue. Wash contaminated clothing thoroughly with water before removing it from the affected person, or wear gloves. It may be dangerous for first aid personnel to carry out mouth-to-mouth resuscitation.

Most important symptoms and effects, both acute and delayed

General information	See Section 11 for additional information on health hazards. The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
Inhalation	A single exposure may cause the following adverse effects: Irritation of nose, throat and airway. Difficulty in breathing. Coughing.
Ingestion	May cause discomfort if swallowed. May cause stomach pain or vomiting.
Skin contact	Prolonged contact may cause dryness of the skin.
Eye contact	May be slightly irritating to eyes.

Indication of immediate medical attention and special treatment needed

Notes for the doctor	Treat symptomatically.
-----------------------------	------------------------

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media	The product is not flammable. Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. Use fire-extinguishing media suitable for the surrounding fire.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.

Special hazards arising from the substance or mixture

Specific hazards	None known.
Hazardous combustion products	Thermal decomposition or combustion products may include the following substances: Harmful gases or vapors.

Advice for firefighters



Dimethyl Terephthalate

According to Appendix D, OSHA Hazard Communication Standard 29 CFR §1910.1200

Protective actions during firefighting

Avoid breathing fire gases or vapors. Evacuate area. Keep upwind to avoid inhalation of gases, vapors, fumes and smoke. Ventilate closed spaces before entering them. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. Control run-off water by containing and keeping it out of sewers and watercourses. If risk of water pollution occurs, notify appropriate authorities.

Special protective equipment for firefighters

Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Standard Firefighter's clothing including helmets, protective boots and gloves will provide a basic level of protection for chemical incidents.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions

Wear protective clothing as described in Section 8 of this safety data sheet. No action shall be taken without appropriate training or involving any personal risk. Keep unnecessary and unprotected personnel away from the spillage. Follow precautions for safe handling described in this safety data sheet. Wash thoroughly after dealing with a spillage. Ensure procedures and training for emergency decontamination and disposal are in place. Do not touch or walk into spilled material. Avoid inhalation of dust. Use suitable respiratory protection if ventilation is inadequate.

Environmental precautions

Environmental precautions

Stop leak if safe to do so. Large Spillages: Inform the relevant authorities if environmental pollution occurs (sewers, waterways, soil or air).

Methods and material for containment and cleaning up

Methods for cleaning up

Wear protective clothing as described in Section 8 of this safety data sheet. Clear up spills immediately and dispose of waste safely. Approach the spillage from upwind. Collect spillage with a shovel and broom, or similar and reuse, if possible. Collect and place in suitable waste disposal containers and seal securely. Flush contaminated area with plenty of water. Wash thoroughly after dealing with a spillage. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

Reference to other sections

For personal protection, see Section 8. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards. For waste disposal, see Section 13.

7. Handling and storage

Precautions for safe handling



Dimethyl Terephthalate

According to Appendix D, OSHA Hazard Communication Standard 29 CFR §1910.1200

Usage precautions

Wear protective clothing as described in Section 8 of this safety data sheet. Keep away from food, drink and animal feeding stuffs. Keep container tightly sealed when not in use. Do not handle until all safety precautions have been read and understood. Do not handle broken packages without protective equipment.

Advice on general occupational hygiene

Wash promptly if skin becomes contaminated. Take off contaminated clothing and wash before reuse. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Wash at the end of each work shift and before eating, smoking and using the toilet. Change work clothing daily before leaving workplace.

Conditions for safe storage, including any incompatibilities

Storage precautions

Store away from incompatible materials (see Section 10). Store in accordance with local regulations. Keep only in the original container. Keep container tightly closed, in a cool, well ventilated place. Keep containers upright. Protect containers from damage. Utilize retaining walls to prevent soil and water pollution in the event of spillage. The storage area floor should be leak-tight, jointless and not absorbent.

Storage class

Chemical storage.

Specific end uses(s)

Specific end use(s)

The identified uses for this product are detailed in Section 1.

8. Exposure controls/Personal protection

Exposure controls

Protective equipment



Appropriate engineering controls

Provide adequate ventilation. Personal, workplace environment or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Use process enclosures, local exhaust ventilation or other engineering controls as the primary means to minimize worker exposure. Personal protective equipment should only be used if worker exposure cannot be controlled adequately by the engineering control measures. Ensure control measures are regularly inspected and maintained. Ensure operatives are trained to minimize exposure.

Eye/face protection

Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. Personal protective equipment for eye and face protection should comply with OSHA 1910.133. Unless the assessment indicates a higher degree of protection is required, the following protection should be worn: Tight-fitting safety glasses.



Dimethyl Terephthalate

According to Appendix D, OSHA Hazard Communication Standard 29 CFR §1910.1200

Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. To protect hands from chemicals, gloves should comply with OSHA 1910.138 and be demonstrated to be impervious to the chemical and resist degradation. Considering the data specified by the glove manufacturer, check during use that the gloves are retaining their protective properties and change them as soon as any deterioration is detected. Frequent changes are recommended.

Other skin and body protection

Appropriate footwear and additional protective clothing complying with an approved standard should be worn if a risk assessment indicates skin contamination is possible.

Hygiene measures

Provide eyewash station and safety shower. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Clean equipment and the work area every day. Good personal hygiene procedures should be implemented. Wash at the end of each work shift and before eating, smoking and using the toilet. When using do not eat, drink or smoke. Preventive industrial medical examinations should be carried out. Warn cleaning personnel of any hazardous properties of the product.

Respiratory protection

Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible. Ensure all respiratory protective equipment is suitable for its intended use and is NIOSH approved. Check that the respirator fits tightly and the filter is changed regularly. Gas and combination filter cartridges should comply with OSHA 1910.134. Full face mask respirators with replaceable filter cartridges should comply with OSHA 1910.134. Half mask and quarter mask respirators with replaceable filter cartridges should comply with OSHA 1910.134.

Environmental exposure controls

Keep container tightly sealed when not in use. Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance	Solid. Flakes.
Color	Not known.
Odor	Not known.
Odor threshold	No information available.



Dimethyl Terephthalate

According to Appendix D, OSHA Hazard Communication Standard 29 CFR §1910.1200

pH	No information available.
Melting point	141°C/285.8°F
Initial boiling point and range	284°C/543.2°F
Flash point	151°C/303.8°F
Evaporation rate	No information available.
Flammability (solid, gas)	No information available.
Upper/lower flammability or explosive limits	Lower flammable/explosive limit: 0.8% Upper flammable/explosive limit: 11.8%
Vapor pressure	No information available.
Vapor density	5.5
Relative density	1.367 g/cm ³
Solubility(ies)	Slightly soluble in water. 0.031 g/l water @ 20°C
Partition coefficient	No information available.
Auto-ignition temperature	518°C
Decomposition Temperature	No information available.
Viscosity	Not applicable.
Other information	None.
Molecular weight	194.185 g/mol

10. Stability and reactivity

Reactivity	See the other subsections of this section for further details.
Stability	Stable at normal ambient temperatures and when used as recommended. Stable under the prescribed storage conditions.
Possibility of hazardous reactions	No potentially hazardous reactions known.
Conditions to avoid	Avoid heat, flames and other sources of ignition.
Materials to avoid	Reducing agents.
Hazardous decomposition products	Does not decompose when used and stored as recommended. Thermal decomposition or combustion products may include the following substances: Harmful gases or vapors.



Dimethyl Terephthalate

According to Appendix D, OSHA Hazard Communication Standard 29 CFR §1910.1200

11. Toxicological information

Information on toxicological effects

Acute toxicity - oral

Summary Based on available data the classification criteria are not met.

Notes (oral LD₅₀) LD₅₀ >3200 mg/kg, Oral, Rat

Acute toxicity - dermal

Summary Based on available data the classification criteria are not met.

Notes (dermal LD₅₀) LD₅₀ >5000 mg/kg, Dermal, Guinea pig

Acute toxicity - inhalation

Summary Based on available data the classification criteria are not met.

Notes (inhalation LC₅₀) LC₅₀ >6 mg/l, 2 hours, Dust/Mist Rat

Skin corrosion/irritation

Summary Based on available data the classification criteria are not met.

Serious eye damage/irritation

Summary Based on available data the classification criteria are not met.

Respiratory sensitization

Summary Based on available data the classification criteria are not met.

Skin sensitization

Summary Based on available data the classification criteria are not met.

Germ cell mutagenicity

Summary Based on available data the classification criteria are not met.

Carcinogenicity

Summary Based on available data the classification criteria are not met.

IARC carcinogenicity None of the ingredients are listed or exempt.

Reproductive toxicity

Summary Based on available data the classification criteria are not met.

Specific target organ toxicity - single exposure

Summary May cause respiratory irritation.

Target organs Respiratory system, lungs

Specific target organ toxicity - repeated exposure

Summary Causes damage to organs through prolonged or repeated exposure.



Dimethyl Terephthalate

According to Appendix D, OSHA Hazard Communication Standard 29 CFR §1910.1200

Aspiration hazard

Summary Not relevant. Solid.

General information

The severity of the symptoms described will vary dependent on the concentration and the length of exposure.

Inhalation

A single exposure may cause the following adverse effects: Irritation of nose, throat and airway. Difficulty in breathing. Coughing.

Ingestion

May cause discomfort if swallowed. May cause stomach pain or vomiting.

Skin Contact

Prolonged contact may cause dryness of the skin.

Eye contact

May be slightly irritating to eyes.

Route of exposure

Ingestion Inhalation Skin and/or eye contact

Target Organs

Respiratory system, lungs

12. Ecological information

Ecotoxicity

Not regarded as dangerous for the environment. However, large or frequent spills may have hazardous effects on the environment.

Acute aquatic toxicity

Summary

Based on available data the classification criteria are not met.

Acute toxicity - fish

LC₅₀, 96 hours: 13 mg/l, Brachydanio rerio (Zebra Fish)
NOEC, 96 hours: 9.6 mg/l, Brachydanio rerio (Zebra Fish)

Acute toxicity - aquatic invertebrates

EC₅₀, 48 hours: >23.5 mg/l, Daphnia magna
NOEC, 48 hours: 10.8 mg/l, Daphnia magna

Acute toxicity - aquatic plants

EC₅₀, 72 hours: >29 mg/l, Desmodium subspicatus
NOEC, 72 hours: 29 mg/l, Desmodium subspicatus

Acute toxicity - microorganisms

EC₅₀, 3 hours: >1000 mg/l, Activated sludge

Chronic aquatic toxicity

Summary

Based on available data the classification criteria are not met.

Persistence and degradability

Persistence and degradability The substance is readily biodegradable.

Biodegradation

Water - Degradation 83.8%: 14 days

Bioaccumulative potential

Bio-Accumulative Potential Bioaccumulation is unlikely.



Dimethyl Terephthalate

According to Appendix D, OSHA Hazard Communication Standard 29 CFR §1910.1200

Partition coefficient No information available.

Mobility in soil

Mobility The product is water-soluble and may spread in water systems.

Other adverse effects

Other adverse effects None known.

13. Disposal considerations

Waste treatment methods

General information

The generation of waste should be minimized or avoided wherever possible. Reuse or recycle products wherever possible. This material and its container must be disposed of in a safe way. Disposal of this product, process solutions, residues and by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any local authority requirements. When handling waste, the safety precautions applying to handling of the product should be considered. Care should be taken when handling emptied containers that have not been thoroughly cleaned or rinsed out. Empty containers or liners may retain some product residues and hence be potentially hazardous.

Disposal methods

Do not empty into drains. Dispose of surplus products and those that cannot be recycled via a licensed waste disposal contractor. Waste, residues, empty containers, discarded work clothes and contaminated cleaning materials should be collected in designated containers, labeled with their contents. Waste packaging should be collected for reuse or recycling. Incineration or landfill should only be considered when recycling is not feasible.

14. Transport information

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

UN Number

UN No. (International) Not applicable.

UN No. (DOT) Not applicable.

UN proper shipping name

Proper shipping name (International) Not applicable.

Proper shipping name (DOT) Not applicable.

Transport hazard class(es)



Dimethyl Terephthalate

According to Appendix D, OSHA Hazard Communication Standard 29 CFR §1910.1200

Transport Labels
(International) No transport warning sign required.

DOT transport labels
No transport warning sign required.

Packing group

Packing group (International) Not applicable.

DOT packing group Not applicable.

Environmental hazards

Environmentally Hazardous Substance
No.

Special precautions for user

Not applicable.

DOT reportable quantity Not applicable.

DOT TIH Zone Not applicable.

Transport in bulk according to
Annex II of MARPOL 73/78
and the IBC Code Not applicable.

15. Regulatory information

US Federal Regulations

SARA Section 302 Extremely Hazardous Substances Tier II Threshold Planning Quantities

None of the ingredients are listed.

CERCLA/Superfund, Hazardous Substances/Reportable Quantities (EPA)

None of the ingredients are listed.

SARA Extremely Hazardous Substances EPCRA Reportable Quantities

None of the ingredients are listed.

SARA 313 Emission Reporting

None of the ingredients are listed.

CAA Accidental Release Prevention

None of the ingredients are listed.

SARA (311/312) Hazard Categories

Specific target organ toxicity (single or repeated exposure)



Dimethyl Terephthalate

According to Appendix D, OSHA Hazard Communication Standard 29 CFR §1910.1200

OSHA Highly Hazardous Chemicals
None of the ingredients are listed.

US State Regulations

California Proposition 65 Carcinogens and Reproductive Toxins
None of the ingredients are listed or exempt.

New Jersey "Right To Know" List
None of the ingredients are listed.

Pennsylvania "Right To Know" List
None of the ingredients are listed.

Inventories

EU - EINECS/ELINCS
EINECS

Canada - DSL/NDL
DSL

US - TSCA
Present.

Australia - AICS
Present.

Japan - ENCS
Present.

Korea - KECI
Present.

China - IECSC
Present.

Philippines - PICCS
Present.

New Zealand - NZIOC
Present.

Taiwan - TCSI
Present.

16. Other information



Dimethyl Terephthalate

According to Appendix D, OSHA Hazard Communication Standard 29 CFR §1910.1200

Abbreviations and acronyms used in the safety data sheet

TDG: The transport of dangerous goods act

IATA: International air transport association.

ICAO: Technical instructions for the safe transport of dangerous goods by air.

IMDG: International maritime dangerous goods.

CAS: Chemical abstracts service.

ATE: Acute toxicity estimate.

LC₅₀: Lethal concentration to 50 % of a test population.

LD₅₀: Lethal dose to 50% of a test population (median lethal dose).

EC₅₀: 50% of maximal effective concentration.

PBT: Persistent, bioaccumulative and toxic substance.

vPvB: Very persistent and very bioaccumulative.

Classification abbreviations and acronyms

STOT RE = Specific target organ toxicity-repeated exposure

STOT SE = Specific target organ toxicity-single exposure

Training advice

Read and follow manufacturer's recommendations. Only trained personnel should use this material.

Revision date

5/17/2020

Revision

First edition

SDS No.

249

Hazard statements in full

H335 May cause respiratory irritation.

H372 Causes damage to organs (Nervous system, Liver, Respiratory tract, Kidneys) through prolonged or repeated exposure.

NFPA - health hazard

Irritation, minor residual injury. (1)

NFPA - flammability hazard

Burns only if pre-heated. (1)

NFPA - instability hazard

Normally stable. (0)

NFPA - special hazard

W (with horizontal line through center)

End of Safety Data Sheet

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.