

Safety Data Sheet

The content and format of this SDS is accordant with GB/T 16483-2008 (GHS standard).

1. Identification of the substance/preparation and of the company/undertaking

Product name: Diethyl Thio-Toluene Diamine (DMTDA)

Manufacturer/Supplier: ZHANG JIA GANG YARUI CHEMICAL CO., LTD.

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Further information obtainable from: ZHANG JIA GANG YARUI CHEMICAL CO., LTD.

Information in case of emergency:

Tel.: +86-512-58961066

Recommended use of the chemical and restrictions on use: It is used as curing agent of PU elastomer. Restrictions on use:
 Do NOT use it in an application which may contaminate food or do harm to human health.

2. Hazards identification

GHS classification:

Physical hazards	Health hazards	Environmental hazards
Explosives-not classified Flammable gases-not classified Flammable aerosols-not classified Gases under pressure- not classified Flammable liquids- not classified Flammable solids-not classified Self-reactive substances and mixtures -not classified Pyrophoric liquids-not classified Pyrophoric solids-not classified Self-heating substances and mixtures-not classified Substances and mixtures, which in contact with water, emit flammable gases-not classified Oxidizing liquids-not classified Oxidizing solids-not classified Organic peroxides-not classified Corrosive to metals-not classified	Acute toxicity (oral)- Category 4 Acute toxicity (dermal)- not classified Acute toxicity (inhalation)- not classified Skin corrosion/irritation- not classified Serious eye damage/eye irritation - not classified Respiratory sensitizer-not classified Skin sensitizer- Category 1 Germ cell mutagenicity-not classified Carcinogenicity- not classified Toxic to reproduction- not classified/ Effects on or via lactation-not classified STOT SE- not classified STOT RE- Category 2 Aspiration hazard-not classified	Acute hazards to the aquatic environment-Category 1 Chronic hazards to the aquatic environment-Category 1 Hazard to the ozone layer-not classified

Signal word: Warning

Symbol:



Hazard Statement:

H302: Harmful if swallowed.

H317: May cause an allergic skin reaction.

H373: May cause damage to organs through prolonged or repeated exposure.

H410: Very toxic to aquatic life with long lasting effects.

Precautionary Statements:

P260: Do not breathe dust/fume/gas/mist/vapour/spray.

P272: Contaminated work clothing should not be allowed out of the workplace.

P273: Avoid release to the environment.

P280: Wear protective gloves/eye protection/face protection.

Response Precautionary Statements:

P301+P312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

P330: Rinse mouth.

P302+P352: IF ON SKIN: Wash with soap and water.

P321: Specific treatment (see relevant information on this label).

P333+P313: If skin irritation or a rash occurs: get medical advice/attention.

P312: Call a POISON CENTER or doctor/physician if you feel unwell.

P391: Collect spillage.

Storage precautionary statements :

No relevant classification for this product.

Disposal precautionary statements :

P501: Dispose of contents/container according to relevant local and national regulations.

3. Composition/information on ingredients

Product description: substance (✓); preparation/mixture ()

Ingredient (s)	CAS number	EC number	% by weight
Diethyl thio-toluene diamine	106264-79-3	403-240-8	≥98%

4. First aid measures

Persons using this product should consult a physician or other medical professional if an accident involving this product results in injury. Specific first-aid measures are as follows:

Eyes Contact: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing. If eye irritation persists: get medical advice/attention.

Skin Contact: Wash with soap and water. Take off contaminated clothing and wash before reuse. If skin irritation or a rash occurs: get medical advice/attention.

Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

Ingestion: Rinse mouth. Do not induce vomiting without doctor's instruction. Immediately call a POISON CENTER or doctor/physician if you feel unwell.

Acute effect and delayed effect: Acute effect: Harmful if swallowed. May cause an allergic skin reaction.

Delayed effect: May cause damage to organs through prolonged or repeated exposure.

Personal protective equipment: Wear protective gloves/protective clothing/eye protection/face protection when necessary.

Indication of immediate medical attention and treatment needed, if necessary: Treat according to symptoms.

5. Fire-fighting measures

Extinguishing Media: Fire foam, water spray, carbon dioxide or dry chemical powder

Unsuitable Extinguishing Media: Discharging cylinder shape water from fire hose may lead to spread fire to the surroundings.

Special hazards arising from the chemical: The flash point of this product exceeds 93 °C, so it is not classified as flammable liquids. Irritating fume may be released from thermal decomposition.

Fire Fighting Method:

Remove all ignition sources.

Deny unnecessary entry to the place around the fire.

Remove containers from fire area if it can be done without risk.

Extinguish fire from upwind, and the fire extinguishing method should be appropriate to the situation in the surroundings.

Special actions for fire-fighters: Firefighters must wear self-contained breathing apparatus and full protective equipment.

If the colour of the container changes or there is sound from the container, immediately stay away from the container.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures:

For non-emergency personnel:

Wear suitable protective equipment to prevent any contamination of skin, eyes and personal clothing.

Stay in the windward.

For emergency responders:

Wear suitable protective equipment to prevent any contamination of skin, eyes and personal clothing.

Remove ignition sources and provide of sufficient ventilation.

Evacuate the danger area or consult an expert when necessary.

Environmental precautions: Keep cleaning run-offs out of municipal sewers and open bodies of water. Comply with local and national laws and regulations.

Methods and material for containment and cleaning up:

Small Spill:

Mop up or absorb with an inert dry material (e.g. sand, dry lime) and place in an appropriately labeled waste disposal container.

Large Spill:

Isolate contaminated area and set up a warning board. The persons handling emergency are recommended wearing protective clothing. Do NOT touch spilled material. Keep away from heat and sources of ignition.
Build up dike or dig pit for collection. Spray fog water to cool down and dilute vapour. Protect the working staff. Collect the spilled material with explosion-proof pump into an appropriate container and transport the waste to the disposal place.

7. Handling and storage

Precautions for safe handling:

Operate in a confined area with good-ventilation.

Workers must wear proper protective equipment and must operate strictly according to relative rules.

Recommend wearing anti-poison respirators (semi-face), safety goggles, impermeable working clothes and anti-oil rubber gloves.

Prevent vapour from releasing into air of working place.

Ground/bond container and receiving equipment.

Handle with care to avoid damage of packaging materials or containers.

The storeroom should be equipped with proper facilities for accidental leakage.

Conditions for safe storage, including any incompatibilities:

Keep container tightly closed and store in cool and a well-ventilated place.

Store away from strong oxidants and isocyanates.

8. Exposure controls/personal protection

Occupational Exposure Limits:

Ingredients	OELs (GBZ 2.1-2007)	OSHA PEL-TWA	ACGIH TLV-TWA
Diethyl thio-toluene diamine (CAS: 106264-79-3)	No data available	No data available	No data available

Engineering Controls:

Handle the product only under conditions where sufficient ventilation is provided.

Install eye washer and safety shower near handling and storage area.

Personal Protective Equipment (for workers) :

Protection of Hands:

Wear protective gloves (e.g. rubber gloves, etc.).



Protection of Eyes:

Wear chemical safety goggles.

Wear plastic face shield in addition to safety goggles where there is danger of splashing.



Respiratory Protection: Use an approved respirator if exposure limits are exceeded or if irritation or other symptoms occur. Wear respirators when handling emergency.



Protection of Body:

Wear work clothing and foot wear as appropriate.



.General protective and hygienic measures:

- Do not eat, drink or smoke when using this product.
- Take a shower and change clothes at the end of work.
- Wash hands before breaks and at the end of work.
- Avoid contact with eyes and skin.

9. Physical and chemical properties

General Information	
Form	Liquid
Colour	Light yellow
Odour	Slight, amine
pH Value	No data available
Boiling range	No data available
Melting point/Melting range	No data available
Flash Point	176°C
Flammable/Explosive Limits-Lower Vol %	No data available
Flammable/Explosive Limits-Upper Vol %	No data available
Relative density	1.206 (water=1)
Relative vapour density	No data available
Vapour pressure	No data available
Solubility	Insoluble in water.
n-octanol/Water partitioncoefficient	No data available
Igniting temperature	No data available
Decomposition temperature	No data available
Odour threshold value	No data available
Viscosity	600-900mPa.s (20°C)
Evaporation rate	No data available
Flammability (solid, gas, etc.)	This product is not classified as flammable liquid.

10. Stability and reactivity

Reactivity: This product is considered to be a non-reactive material under normal and anticipated storage and handling Conditions.

Chemical stability: This product is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

Possibility of hazardous reactions: No relevant information.

Conditions to Avoid: Extremely high temperature.

Incompatible materials: No relevant information.

Hazardous decomposition products: Irritating fume may be released from thermal decomposition.

11. Toxicological information

Product Toxicity Data:

Ingredient (s)	CAS number	LD 50/LC 50 (Median lethal dose)
Diethyl thio-toluene diamine	106264-79-3	Acute toxicity (Oral) LD50: 1,515mg/kg (rat) Acute toxicity (Dermal) LD50 > 2,000mg/kg (rabbit)

Serious eye damage/eye irritation: This product is classified as Category 2A-causes serious eyes irritation. This classification is based on KOSHA classification (Korea) and EU classification.

Skin corrosion/irritation: No classification for this product.

Respiratory /Skin sensitizer: No classification for this product.

Germ cell mutagenicity: No classification for this product.

Carcinogenicity: No classification for this product.

Reproductive Toxicity: No classification for this product.

STOT SE/RE: Single exposure- No classification for this product.

Repeated exposure-Category 2. This classification is based on KOSHA classification (Korea).

Aspiration hazard: No classification for this product.

12. Ecological information

Ecotoxicity:

Fish:

LC50: 200.777mg/l/96hours (data source: ECOSAR)

Crustacea:

EC50: 1.197mg/l/48hours (data source: ECOSAR)

Microorganisms:

EC50: 170mg /l/24hours (Pseudomonas putida)

Persistence and Degradability:

log Kow 1.36 (data source: QSAR)

Bioaccumulative Potential: No data available

Mobility in Soil: Due to its liquid status, it can move in soil.

13. Disposal considerations

Minimize the hazard of waste by the methods of neutralization and stabilization.
Recommend adopting incineration method for waste disposal.
Any disposal practice must be in compliance with country, local, state, and federal laws and regulations.
After contents are completely removed, dispose of its container at hazardous or special waste collection point.
Paste a label on the container indicating the possible hazards of the waste.

14. Transport Information

DOT/Air-Transportation- IATA/ICAO/Sea-Transportation-IMO/IMDG:

Proper Shipping Name: Environmentally hazardous substances, liquid (Diethyl thio-toluene diamine)

Hazard Class: 9

UN Code: UN3082

Packing Group: III

Packing Group Symbol:



Marine Pollutant (Yes/No): Yes

Note:
Check whether the package is completed or sealed before transporting; make sure there are no damage and no falling down of packages during transporting; the transport vehicle should be equipped with fire-fighting equipment and emergency facilities for handling with release; do NOT transport this product together with incompatible substances.

15. Regulatory information

Laws and Regulations of China:

General rule for classification and hazard communication of chemicals(GB 13690-2009):

Acute toxicity (oral)- Category 4, Skin sensitizer- Category 1

STOT RE- Category 2, Acute hazards to the aquatic environment-Category 1, Chronic hazards to the aquatic environment-Category 1

The Principle of Classification of Transport Packaging Groups of Dangerous Goods (GB/T 15098-2008):

III

Dangerous Chemicals List (GB 12268-2012):

UN 3082, hazard class: 9, packing group: III, proper shipping name: Environmentally hazardous substances, liquid, n.o.s

Production Safety Law of the People's Republic of China: As for safe production and management, emergency response and legal responsibilities, please refer to specific content specified in this law.

Occupational Disease Prevention Law of the People's Republic of China: This product causes slight irritation to eyes. As for prevention during working , management and diagnosis of occupational disease, please refer to specific content specified in this law.

Environmental Protection Law of the People's Republic of China: This product is toxic to aquatic life with long lasting effects. Do no release it into waters.

International Laws and Regulations:

TSCA (Toxic Substance Control Act): This substance is listed in the U.S. Toxic Substances Control Act Chemical Substance Inventory List.

Clean Water Act:

This substance is not listed as Hazardous Substances under the CWA.

This substance is not listed as Priority Pollutants under the CWA.

67/548/EEC Annex I : R: 22-43-50/53, S: (2-)24-37-60-61

Carcinogenicity categories: No relevant classification for this substance.

Candidate List of Substances of very high concern (SVHC) according to ECHA: Not listed.

REACH Regulation Annex XVII Regulation List: Not listed.

REACH Regulation Annex XIV Authorization List: Not listed.

16. Other information

DISCLAIMER: Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information 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 Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

References:

GHS Technical Documents (Version 4th and Version 5th)

GHS Annex II

GHS SDS Instruction

GB 16483-2008

GB 13690-2009

GB/T 17519-2013

Full description of some acronyms:

GHS-Globally Harmonized System of Classification and Labelling of Chemicals

CAS-Chemical Abstracts Service

EINECS-European Inventory of Existing Commercial Chemical Substances

ACGIH- American Conference of Governmental Industrial Hygienists

OSHA-Occupational Safety and Health Administration
IARC- International Agency for Research on Cancer
NTP- The National Toxicology Program
IMO-International Maritime Organization
IMDG-International Maritime Dangerous Goods
IATA-International Air Transport Association
ICAO-International Civil Aviation Organization
TSCA-Toxic Substance Control Act

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*****The End*****

