

Safety Data Sheet

Product name: DIBASIC ESTER

CAS No.: 95481-62-2

Prepared in accordance with GB/T 16483, GB/T 17519

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

>Product identifier

- Product name: DIBASIC ESTER
- CBnumber: CB3195901
- CAS: 95481-62-2
- EINECS Number: 000-000-0
- Synonyms: DBE,DIBASIC ESTER

>Relevant identified uses of the substance or mixture and uses advised against

- Relevant identified uses: For R&D use only. Not for medicinal, household or other use.
- Uses advised against: none

>Company Identification

- Company: Linyi Tuohui New Materials Co., Ltd.
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SECTION 2: Hazards identification

>GHS Label elements, including precautionary statements

- Symbol(GHS)



- Signal wordWarning

Precautionary statements

P264 Wash skin thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

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

P330 Rinse mouth.

P501 Dispose of contents/container to.....

Hazard statements

H302 Harmful if swallowed

SECTION 3: Composition/information on ingredients

>Substance

- Product name: DIBASIC ESTER
- Synonyms: DBE,DIBASIC ESTER
- CAS: 95481-62-2
- EC number: 000-000-0
- MF: C₂₁H₃₆O₁₂
- MW: 480.51

SECTION 4: First aid measures

>General advice

Show this safety data sheet to the doctor in attendance.

>If inhaled

After inhalation: fresh air.

>In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/shower.

>In case of eye contact

After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.

>If swallowed

After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.

>Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11

>Protection of first-aiders

For personal protection see section 8.

>Notes to physician

No data available

SECTION 5: Firefighting measures

>Suitable extinguishing media

Water Foam Carbon dioxide (CO₂) Dry powder

>Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

>Specific hazards during fire fighting

Combustible. Vapours are heavier than air and may spread along floors. Forms explosive mixtures with air on intense heating. Development of hazardous combustion gases or vapours possible in the event of fire.

>Hazardous combustion products

Carbon oxides

>Specific extinguishing methods

Prevent fire extinguishing water from contaminating surface water or the ground water system.

>Special protective equipment for fire-fighters

In the event of fire, wear self-contained breathing apparatus.

SECTION 6: Accidental release measures

>Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Do not breathe vapours, aerosols. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert. Advice for emergency responders: For personal protection see section 8.

>Environmental precautions

Do not let product enter drains.

>Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up with liquid-absorbent material (e.g. Chemizorb). Dispose of properly. Clean up affected area.

SECTION 7: Handling and storage

>Handling

Avoidance of contact

Bases Oxidizing agents Reducing agents acids

>Storage

Further information on storage conditions

Tightly closed.

Storage class

10, Combustible liquids

Recommended storage temperature

Recommended storage temperature see product label.

SECTION 8: Exposure controls/personal protection

>Ingredients with workplace control parameters

Contains no substances with occupational exposure limit values.

>Engineering measures

No data available

>Personal protective equipment

Respiratory protection

required when vapours/aerosols are generated.

Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

Recommended Filter type

Filter type ABEK

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Safety glasses

Skin and body protection

protective clothing

Hand protection

Remarks

required

Hygiene measures

Change contaminated clothing. Wash hands after working with substance.

SECTION 9: Physical and chemical properties

>Information on basic physicochemical properties

- Physical state liquid
- Appearance liquid
- Color colourless
- Odor No data available
- Odor Threshold No data available
- pH No data available
- Melting point/ range No data available
- Boiling point/boiling range 196 - 225 °C (1,013 hPa)
- Flash point 100 °C
Method: closed cup
- Evaporation rate No data available
- Flammability (solid, gas) No data available
- Flammability (liquids) No data available
- Burning rate No data available
- Self-ignition 370 °C
- Upper explosion limit / Upper flammability limit Upper flammability limit
- Lower explosion limit / Lower flammability limit Lower flammability limit
- Vapor pressure 0.3 hPa (20 °C)
- Relative vapor density No data available
- Relative density 1.19 g/mL at 25 °C (lit.)
- Density 1.092 g/cm³
- Water solubility 53 g/L
- Partition coefficient: n-octanol/water No data available

- Autoignition temperature No data available
- Decomposition temperature No data available
- Viscosity, dynamic No data available
- Viscosity, kinematic No data available
- Flow time No data available
- Explosive properties Not classified as explosive.
- Oxidizing properties none
- Molecular weight 146.1 g/mol
- Particle characteristics Particle size No data available

SECTION 10: Stability and reactivity

>Reactivity

Forms explosive mixtures with air on intense heating. A range from approx. 15 Kelvin below the flash point is to be rated as critical.

>Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

>Possibility of hazardous reactions

No data available

>Conditions to avoid

Strong heating.

>Incompatible materials

Bases Oxidizing agents Reducing agents acids

>Hazardous decomposition products

In the event of fire: see section 5

SECTION 11: Toxicological information

>11.1 Information on toxicological effects

Mixture Acute toxicity

Oral: No data available

Symptoms: Possible symptoms: , mucosal irritations

Dermal: No data available

Skin corrosion/irritation

Classified based on available data. For more details, see section 2

Serious eye damage/eye irritation

Remarks: Mixture causes serious eye irritation.

Respiratory or skin sensitization**Germ cell mutagenicity****Carcinogenicity****Reproductive toxicity****Specific target organ toxicity - single exposure****Specific target organ toxicity - repeated exposure****Aspiration hazard****>11.2 Additional Information**

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

Other dangerous properties can not be excluded.

Handle in accordance with good industrial hygiene and safety practice.

Components dimethyl glutarate**Acute toxicity**

LD50 Oral - Rat - female - > 5,000 mg/kg (OECD Test Guideline 423)

LC50 Inhalation - Rat - male and female - 4 h - > 11 mg/l - aerosol (OECD Test Guideline 403)

LD50 Dermal - Rat - male and female - > 2,000 mg/kg (OECD Test Guideline 402)

Skin corrosion/irritation

Skin - Rabbit

Result: No skin irritation (OECD Test Guideline 404)

Serious eye damage/eye irritation

Eyes - Rabbit

Result: No eye irritation (OECD Test Guideline 405)

Respiratory or skin sensitization

Local lymph node assay (LLNA) - Mouse

Result: negative (OECD Test Guideline 429)

Germ cell mutagenicity

Test Type: Ames test

Test system: Salmonella typhimurium

Result: negative

Test Type: Chromosome aberration test in vitro

Test system: lymphocyte

Result: negative

Test Type: gene mutation test

Test system: Chinese hamster ovary cells

Result: negative

Method: Mutagenicity (micronucleus test)

Species: Rat - male and female

Result: negative

Carcinogenicity

Reproductive toxicity

Specific target organ toxicity - single exposure

Specific target organ toxicity - repeated exposure

Aspiration hazard

dimethyl succinate

LD50 Oral - Rat - > 5,000 mg/kg

Remarks: (IUCLID)

Symptoms: Possible damages:, mucosal irritations

LD50 Dermal - Rabbit - > 5,000 mg/kg

Remarks: (IUCLID)

Eyes - Rabbit

Result: Eye irritation (OECD Test Guideline 405)

Remarks: Lacrimal irritation due to vapours.

Patch test: - Human

Result: negative

Remarks: (External MSDS)

Test Type: Ames test

Result: negative

Remarks: (IUCLID)

Result: negative

Remarks: (National Toxicology Program)

Acute inhalation toxicity - Possible damages:, mucosal irritations

dimethyl adipate

LD50 Oral - Rat - male and female - > 5,000 mg/kg (OECD Test Guideline 423)

Inhalation: No data available

LD50 Dermal - Rabbit - male and female - > 1,000 mg/kg (OECD Test Guideline 402)

Skin corrosion/irritation

Skin - Rabbit

Result: No skin irritation - 4 h

Serious eye damage/eye irritation

Respiratory or skin sensitization

Germ cell mutagenicity

Method: OECD Test Guideline 474

Species: Rat

Result: negative

Carcinogenicity

Reproductive toxicity

Specific target organ toxicity - single exposure

Specific target organ toxicity - repeated exposure

Aspiration hazard

Classified based on available data. For more details, see section 2

SECTION 12: Ecological information

>Ecotoxicity

>Components:

>dimethyl glutarate:

Toxicity to fish

LC50 (Lepomis macrochirus (Bluegill)): 30.838 mg/l Exposure time: 96 h Test Type: static test

Toxicity to daphnia and other aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 112 - 150 mg/l End point: Immobilization Exposure time: 48 h
Test Type: static test Remarks: (ECHA)

>dimethyl succinate:

Toxicity to fish

LC50 (Danio rerio (zebra fish)): 50 - 100 mg/l Exposure time: 96 h Method: OECD Test Guideline 203

Toxicity to microorganisms

EC50 (activated sludge): > 1,000 mg/l Exposure time: 3 h Method: OECD Test Guideline 209

>Ecotoxicology Assessment

Chronic aquatic toxicity

This product has no known ecotoxicological effects.

>dimethyl adipate:

Toxicity to fish

LC50 (Pimephales promelas (fathead minnow)): 18 - 24 mg/l End point: mortality Exposure time: 96 h Remarks: (ECHA)

Toxicity to daphnia and other aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 72 mg/l End point: Immobilization Exposure time: 48 h Test Type: static test Method: OECD Test Guideline 202 GLP: yes

Toxicity to algae/aquatic plants

EC50 (Raphidocelis subcapitata (freshwater green alga)): > 100 mg/l Exposure time: 72 h Test Type: static test Method: OECD Test Guideline 201

>Persistence and degradability

>Components:

>dimethyl glutarate:

Biodegradability

Result: Readily biodegradable. Biodegradation: ≥ 60 % Exposure time: 28 d Method: OECD Test Guideline 301D

>dimethyl succinate:

Biodegradability

Result: Readily eliminated from water Biodegradation: > 95 % Exposure time: 3 d Method: OECD Test Guideline 302B

>dimethyl adipate:

Biodegradability

Result: Readily biodegradable. Biodegradation: 75 % Exposure time: 28 d Method: OECD Test Guideline 301C

>Bioaccumulative potential

>Components:

>dimethyl glutarate:

Partition coefficient: noctanol/water

log Pow: 0.49 (20 °C) pH: 7 Method: OECD Test Guideline 107 Remarks: Potential bioaccumulation

>dimethyl adipate:

Partition coefficient: noctanol/water

log Pow: 1.4 (22 °C) pH: 6.9 Method: OECD Test Guideline 117 GLP: yes Remarks: Potential bioaccumulation

>Mobility in soil

No data available

>Other adverse effects

No data available

SECTION 13: Disposal considerations

>Disposal methods

Waste from residues

Offer surplus and non-recyclable solutions to a licensed disposal company.

SECTION 14: Transport information

>International Regulations

>IATA-DGR

Not regulated as a dangerous good

UN/ID No. : Not applicable

Proper shipping name : Not applicable

Class : Not applicable

Subsidiary risk : Not applicable

Packing group : Not applicable

Labels : Not applicable

Packing instruction (cargo aircraft) : Not applicable

Packing instruction (passenger aircraft) : Not applicable

>IMDG-Code

Not regulated as a dangerous good

UN number : Not applicable

Proper shipping name : Not applicable

Class : Not applicable

Subsidiary risk : Not applicable

Packing group : Not applicable

Labels : Not applicable

EmS Code : Not applicable

Marine pollutant : no

>Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

>National Regulations

>JT/T 617

UN number : Not applicable

Proper shipping name : Not applicable

Class : Not applicable

Subsidiary risk : Not applicable

Packing group : Not applicable

Labels : Not applicable

Environmentally hazardous : no

>Special precautions for user

Remarks : Not classified as dangerous in the meaning of transport regulations.

SECTION 15: Regulatory information

>National regulatory information

>Regulations on Safety Management of Hazardous Chemicals

>Catalogue of Hazardous Chemicals

>Hazardous Chemicals for Priority Management

Not applicable under SAWS

>Regulation of Environmental Management on the First Import of Chemicals and the Import and Export of Toxic Chemicals

>China Severely Restricted Toxic Chemicals for Import and Export

Not applicable

SECTION 16: Other information

>Full text of other abbreviations

AIIC - Australian Inventory of Industrial Chemicals

ANTT - National Agency for Transport by Land of Brazil

ASTM - American Society for the Testing of Materials

bw - Body weight

CMR - Carcinogen, Mutagen or Reproductive Toxicant
DIN -Standard of the German Institute for Standardisation
DSL - Domestic SubstancesList (Canada)
ECx - Concentration associated with x% response
ELx - Loading rate associated with x% response
EmS - Emergency Schedule
ENCS - Existing and NewChemical Substances (Japan)
ErCx - Concentration associated with x% growth rate response
ERG - Emergency Response Guide
GHS - Globally Harmonised System
GLP - Good Laboratory Practice
IARC - International Agency for Research on Can- cer
IATA - International Air Transport Association
IBC - International Code for theConstruction and Equipment of Ships carrying Dangerous Chemicals in Bulk
IC50 -Half maximal inhibitory concentration
ICAO - International Civil Aviation Organiza- tion
IECSC - Inventory of Existing Chemical Substances in China
IMDG - Interna- tional Maritime Dangerous Goods
IMO - International Maritime Organisation
ISHL -Industrial Safety and Health Law (Japan)
ISO - International Organisation forStandardisation
KECI - Korea Existing Chemicals Inventory
LC50 - Lethal Concen- tration to 50 % of a test population
LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose)
MARPOL - International Convention for the Prevention of Pol- lution from Ships
MERCOSUR - The Agreement for the Facilitation of the Transport of Dangerous Goods
n.o.s. - Not Otherwise Specified
Nch - Chilean Norm
NO(A)EC - No Observed (Adverse) Effect Concentration
NO(A)EL - No Observed (Adverse) Ef- fect Level
NOELR - No Observable Effect Loading Rate
NOM - Official MexicanNorm
NTP - National Toxicology Program
NZIoC - New Zealand Inventory of Chem- icals
OECD - Organisation for Economic Co-operation and Development
OPPTS - Of- fice of Chemical Safety and Pollution Prevention
PBT - Persistent, Bioaccumulative and Toxic substance
PICCS - Philippines Inventory of Chemicals and Chemical Sub- stances

(Q)SAR - (Quantitative) Structure Activity Relationship

REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals

SADT - Self-Accelerating Decomposition Temperature

SDS - Safety Data Sheet

TCSI - Taiwan Chemical Substance Inventory

TDG - Transportation of Dangerous Goods

TECI - Thailand Existing Chemicals Inventory

TSCA - Toxic Substances Control Act (United States)

UN - United Nations

UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods

vPvB - Very Persistent and Very Bioaccumulative

WHMIS - Workplace Hazardous Materials Information System