

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH) and Regulation (EU) No. 2015/830

Revision date: 8/7/2015
Version: 3
Language: en-GB,IE
Date of print: 30/1/2018

Sebacic acid

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

1.1 Product identifier

Trade name: Sebacic acid
REACH registration No.: 01-2119519212-52-0027

CAS-Number: 111-20-6
EC-number: 203-845-5

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

General use: Chemical basic material, stabiliser
For industrial purposes only

1.3 Details of the manufacturer of the safety data sheet

Company name: Shanxi zhengang chemical co ., ltd
Street/POB-No.: Economic and technological park of hequ county-036599,
Postal Code, city: Xinzhou, Shanxi, China.

Telephone: +86 (350)7263499
Telefax: +86 (350)7263488

Dept. responsible for information:
REACH Department,
Telephone: +86(350)7263488, E-mail: info@sxzgchem.com

1.4 Emergency telephone number

GIZ-Nord, Germany, Telephone: +49 (0)551-19240

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to EC regulation 1272/2008 (CLP)

This substance is classified as not hazardous.

2.2 Label elements

Labelling (CLP)

Hazard statements: not applicable

Precautionary statements: not applicable

2.3 Other hazards

No risks worthy of mention.

Results of PBT and vPvB assessment:

This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.

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SECTION 3: Composition / information on ingredients

3.1 Substances

Chemical characterisation: $C_{10}H_{18}O_4 = HOOC-(CH_2)_8-COOH$
Sebacic acid, Decanedioic acid $\geq 99,5\%$

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SECTION 4: First aid measures

4.1 Description of first aid measures

General information: Change contaminated clothing.

In case of inhalation: Move victim to fresh air. Seek medical treatment in case of troubles.

Following skin contact: Wash with plenty of water. In case of skin irritation, consult a physician.

After eye contact: Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. In case of troubles or persistent symptoms, consult an ophthalmologist.

After swallowing: Rinse mouth with water. Seek medical treatment in case of troubles.
Do not induce vomiting without medical advice.
Never give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

mild irritant

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media:

Water fog, foam, extinguishing powder, carbon dioxide.

5.2 Special hazards arising from the substance or mixture

Combustible. In case of fire may be liberated: carbon monoxide and carbon dioxide

5.3 Advice for firefighters

Special protective equipment for firefighters:

Wear a self-contained breathing apparatus and chemical protective clothing.

Additional information: Hazchem-Code: -

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Remove all sources of ignition. Wear suitable protective clothing.
Avoid generation of dust. Provide adequate ventilation.
Do not breathe dust. Avoid contact with skin and eyes.

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6.2 Environmental precautions

Do not allow to penetrate into soil, waterbodies or drains.

6.3 Methods and material for containment and cleaning up

Take up mechanically, placing in appropriate containers for disposal.

6.4 Reference to other sections

Refer additionally to section 8 and 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advices on safe handling: Provide adequate ventilation, and local exhaust as needed. Avoid generation of dust.
Wear suitable protective clothing. Do not breathe dust.
Avoid contact with skin and eyes.

Precautions against fire and explosion:

Keep away from sources of ignition - No smoking.
Take precautionary measures against static discharges.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storerooms and containers:

Keep container tightly closed and dry.

Hints on joint storage:

Keep away from food, drink and animal feedingstuffs.
Do not store together with: Oxidising agent.

7.3 Specific end use(s)

Chemical basic material, stabiliser

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Additional information: Contains no substances with occupational exposure limit values.

PNEC: PNEC Water (freshwater): 0,018 mg/L
PNEC Water (marine water): 0,0018 mg/L
PNEC Water (intermittent release): 0,18 mg/L
PNEC Sediment (freshwater): 0,547 mg/kg dw
PNEC Sediment (marine water): 0,0547 mg/kg dw
PNEC Soil: 0,0986 mg/kg dw
PNEC Sewage treatment plant: 10 mg/L

8.2 Exposure controls

Provide adequate ventilation, and local exhaust as needed. Use local exhaust.

Personal protection equipment

Occupational exposure controls

Respiratory protection: Respiratory protection necessary at dust formation.
Recommendation Particulates filter P1 according to EN 143.

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Hand protection: Protective gloves according to EN 374.
Glove material: Polyethylene, PVC

Eye protection: Tightly sealed goggles according to EN 166.

Body protection: Wear suitable protective clothing.

General protection and hygiene measures:
Do not breathe dust. Avoid contact with skin and eyes.
Take precautionary measures against static discharges.
Wash hands before breaks and after work.
Work place should be equipped with a shower and an eye rinsing apparatus.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance: Form: solid, powder
particle size distribution (median value):
<4 micrometer: 0,13%
<10 micrometer: 1,01%
< 100 micrometer: 31,84%
Colour: white

Odour: fatty acid-like
Odour threshold: No data available

pH value: No data available

Melting point/freezing point: 134.5 °C (1013 hPa)

Initial boiling point and boiling range: (Decomposes before boiling.) 338 °C (1013 hPa)

Flash point/flash point range: No data available

Evaporation rate: No data available

Flammability: This product is non-flammable.

Explosion limits: No data available

Vapour pressure: at 20 °C: 0.00001 hPa

Vapour density: No data available

Density: at 20 °C: 1.207 g/cm³

Solubility: soluble in alcohols, ester, ketones

Water solubility: at 20 °C: 209 mg/L

Partition coefficient: n-octanol/water: at 23 °C: 1.5 log P(o/w)
Based on the n-octanol/water partition coefficient significant accumulation in organisms is not expected.

Auto-ignition temperature: n.a.

Decomposition temperature: > 350 °C

Viscosity, kinematic: No data available

Explosive properties: Not explosive

Oxidizing characteristics: No data available

9.2 Other information

Bulk density: 600 - 620 kg/m³

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Additional information:

Molar mass: 202,25 g/mol
Surface tension: not surface active
Oxidising properties: not oxidising
stability in organic solvents: stable
dissociation constant (24 °C): 5

SECTION 10: Stability and reactivity

10.1 Reactivity

Reacts with acids.

10.2 Chemical stability

Product is stable under normal storage conditions.

10.3 Possibility of hazardous reactions

No hazardous reactions known.

10.4 Conditions to avoid

Avoid generation of dust.

10.5 Incompatible materials

Oxidising agent, reducing agent

10.6 Hazardous decomposition products

In case of fire may be liberated: carbon monoxide and carbon dioxide

Thermal decomposition: > 350 °C

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity: LD50 Rat, oral: > 5000 mg/kg
LD50 Rat, dermal: > 2000 mg/kg (OECD 402)

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Toxicological effects: Acute toxicity (oral): Based on available data, the classification criteria are not met.
Acute toxicity (dermal): Based on available data, the classification criteria are not met.
Acute toxicity (inhalative): Lack of data.
Skin corrosion/irritation: Based on available data, the classification criteria are not met.
Rabbit: Not an irritant
Serious eye damage/irritation: Based on available data, the classification criteria are not met.
Rabbit: Not an irritant
Sensitisation to the respiratory tract: Lack of data.
Skin sensitisation: Based on available data, the classification criteria are not met. Guinea pig: negative
Germ cell mutagenicity/Genotoxicity: Based on available data, the classification criteria are not met. Bacterial mutagenicity: Ames test negative. (in-vitro)
mammalian cell test: negative.
chromosomal aberrations mammalian cells: negative
Carcinogenicity: Lack of data.
Reproductive toxicity: Based on available data, the classification criteria are not met.
Rat, oral, 1000 mg/kg/d : No reproductive hazards have been observed. (Disodium sebacate)
Effects on or via lactation: Lack of data.
Specific target organ toxicity (single exposure): Based on available data, the classification criteria are not met.
Specific target organ toxicity (repeated exposure): Based on available data, the classification criteria are not met. NOAEL: \geq 1000 mg/kg/d bw
Aspiration hazard: Based on available data, the classification criteria are not met.

Other information: Subacute to chronic toxicity repeated exposure
NOAEL oral:
 \geq 1000 mg/kg bw (Rat),
 \geq 1500 mg/kg bw (Rabbit)
developmental toxicity/teratogenicity
NOAEL oral:
 \geq 500 mg/kg/d: negative (Disodium sebacate, Rat)
: \geq 1000mg/kg/d: negative (Disodium sebacate, Rabbit)

Symptoms

After eye contact: redness

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SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity: Algae toxicity: EC50 *Skeletonema costatum*: 38,7 mg/L/72h
Bacterial toxicity: EC50 activated sludge: >1000 mg/L/3h
Daphnia toxicity:
EC50 *Daphnia magna* (Big water flea): > 100 mg/L/48h
LC50 *Corophium volutator*: 161 mg/kg sediment dw
LC50 (*Acartia tonsa*): 18mg/L48h WAF
Fish toxicity:
LC50 *Brachydanio rerio* (zebra-fish): > 100 mg/L/96h
LC50 (*Scophthalmus maximus*):> 18 mg/L/96h (marine water)
respiratory inhibition of municipal activated sludge:
EC20: >=1000 mg/L/3h (ISO 8192)
NOEC *Skeletonema costatum*: 3 mg/L/72h (marine water)

12.2 Persistence and degradability

Further details: Biodegradability (in marine water) (OECD 306): 89 % /28 d.
Product is biodegradable.
Photolysis:
Indirect photodegradation by reaction with OH radicals.
half-life time (DT50): 34,25 h, 24 °C (calculated: SRC AOP v1.92)

Effects in sewage plants: Biodegradability in activated sludge: 98%/7d
Product is readily biodegradable.

12.3 Bioaccumulative potential

Partition coefficient: n-octanol/water:
at 23 °C: 1.5 log P(o/w)
Based on the n-octanol/water partition coefficient significant accumulation in organisms is not expected.

12.4 Mobility in soil

Koc: 268,5
log Koc: 2.429
(calculated: SRC PCKOCWIN v200)
Henry constant: 0,000003 Pa*m³/mol, 25 °C
Environmental distribution (calculated: Mackay, level1):
Water: 97%
floor: 1,2%

12.5 Results of PBT and vPvB assessment

This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.

12.6 Other adverse effects

General information: Do not allow to enter into ground-water, surface water or drains.

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SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Waste key number: 07 07 99 = Wastes from the MFSU of fine chemicals and chemical products not otherwise specified

MFSU = manufacture, formulation, supply and use

Recommendation: Dispose of waste according to applicable legislation.

Contaminated packaging

Recommendation: Dispose of waste according to applicable legislation.
Non-contaminated packages may be recycled.

SECTION 14: Transport information

14.1 UN number

ADR/RID, IMDG, IATA-DGR:

not applicable

14.2 UN proper shipping name

ADR/RID, IMDG, IATA-DGR:

Not restricted

14.3 Transport hazard class(es)

ADR/RID, IMDG, IATA-DGR:

not applicable

14.4 Packing group

ADR/RID, IMDG, IATA-DGR:

not applicable

14.5 Environmental hazards

Marine pollutant: no

14.6 Special precautions for user

No dangerous good in sense of these transport regulations.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

No data available

SECTION 15: Regulatory information

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

National regulations - Great Britain

Hazchem-Code:

-

No data available

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15.2 Chemical Safety Assessment

For this substance a chemical safety assessment has been carried out.

SECTION 16: Other information

Further information

Literature: REACH Registration Dossier CAS 111-20-6

Reason of change: General revision (Regulation (EU) No 2015/830)

Date of first version: 24/2/2012

Department issuing data sheet

Contact person: see section 1: Dept. responsible for information

For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).

The information in this data sheet has been established to our best knowledge and was up-to-date at time of revision. It does not represent a guarantee for the properties of the product described in terms of the legal warranty regulations.