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

1.1. Product identifier

Trade name

Sebacic acid

CAS number

111-20-6

EC number

203-845-5

Synonyms

n-Decanedioic acid

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

Research and development. Laboratory Chemicals. Manufacture of substances.

Not suitable for use in

Not suitable for human consumption or veterinary purposes.

1.3. Details of the supplier of the safety data sheet

Supplier

Molekula Group

Address

Molekula Ltd, Lingfield Way, Darlington, DL1 4XX Darlington United Kingdom

Telephone

+44 (0) 3302 000 333

Email

info@molekula.com

Web site

www.molekula.com

Contact person

Kevin Banks

<u>Email</u>

+44 (0) 7769276927

1.4. Emergency telephone number

Poison center/Additional emergency number

0344 892 0111 - National Poisons Information Service (Newcastle Centre)

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SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

The product is not classified as hazardous according to Regulation (EC) No 1272/2008.

2.2. Label elements

Precautionary statements

P202 Do not handle until all safety precautions have been read and understood.

P262 Do not get in eyes, on skin, or on clothing.

P264 Wash dust/fumes/gas/mist/vapours/spray thoroughly after handling.

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

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

P308 + P313 IF exposed or concerned: Get medical advice/attention.

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

P501 Dispose of contents/container to local regulations.

2.3. Other hazards

No data available

SECTION 3: Composition/information on ingredients

3.2. Mixtures

| Chemical name | CAS No. EC No. REACH No. Index No. | Concentration | Classification | H-phrase M factor acute M factor chronic | Note |
|---------------|---|---------------|----------------|--|------|
| Sebacic acid | 111-20-6 203-845-5 - | 100% | - | - | - |

Molecular weight

202.25

Substance additional information

For the complete text of H- / EUH-statements mentioned in this section, see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation

Move to fresh air if inhaled.

Get medical attention if any discomfort continues.

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Skin contact

Rinse skin with water.

If skin irritation or rash occurs: Get medical advice/attention.

Eye contact

Remove contact lenses if present. Rinse eyes with water.

If eye irritation persists: Get medical advice/attention.

Ingestion

Rinse mouth.

Get medical advice/attention if you feel unwell.

Information for doctors

No data available.

4.2. Most important symptoms and effects, both acute and delayed

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

Inhalation

May cause respiratory irritation.

Skin contact

Prolonged contact may cause dryness of the skin.

Eve contact

May be slightly irritating to the eyes.

Ingestion

May cause discomfort if swallowed.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically. No special treatment requirement.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

In case of fire: Use foam, carbon dioxide, dry powder or water fog to extinguish.

Unsuitable extinguishing media

No specific fire fighting procedure given.

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5.2. Special hazards arising from the substance or mixture

Specific hazards: Combustible.

Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

Carbon monoxide (CO). Carbon dioxide (CO2).

Development of hazardous combustion gases or vapours possible in the event of fire.

5.3. Advice for firefighters

Special protective equipment for fire-fighters

Evacuate area. Avoid breathing gas, fume, vapours or spray. Cool containers exposed to heat with water spray and remove container, if no risk is involved.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid breathing dust/fume/gas/mist/vapours/spray. Provide adequate ventilation. For personal protection, see section 8.

6.2. Environmental precautions

Avoid discharge into drains, water courses or onto the ground.

6.3. Methods and material for containment and cleaning up

Collect spillage with shovel, broom or the like and reuse, if possible. Dispose of large amounts of spillage/waste according to agreement with local authorities.

6.4. Reference to other sections

For personal protection, see section 8. For waste disposal, see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Preventive handling precautions

Wear protective clothing, gloves, eye and face protection. Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapours/spray. Avoid ingestion and inhalation. For precautions see section 2.2.

General hygiene

Observe good chemical hygiene practices. Keep away from food, drink and animal feeding stuffs. Do not eat, drink or smoke when using this product. Remove contaminated clothing and launder thoroughly before re-use. Wash skin thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

Store at ambient temperature. Store in a dry place. Store in a closed container.

7.3. Specific end use(s)

No specific usage precautions noted.

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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits

No occupational exposure limit assigned.

PNEC/PEC

| Product/Substance name (CAS No./EC No.) | Туре | Environmental compartment | Value |
|---|------|---------------------------|------------------------------------|
| Sebacic acid (111-20-6/203-845-5) | PNEC | Freshwater | 0.018 mg/l |
| Sebacic acid (111-20-6/203-845-5) | PNEC | Sediment (freshwater) | 0.547 mg/kg sedi- ment dw |
| Sebacic acid (111-20-6/203-845-5) | PNEC | Intermittent releases | 0.18 mg/l |
| Sebacic acid (111-20-6/203-845-5) | PNEC | Sewage Treatment Plant | 10 mg/l |
| Sebacic acid (111-20-6/203-845-5) | PNEC | Soil | 0.0986 mg/kg soil dry weight |
| Sebacic acid (111-20-6/203-845-5) | PNEC | Marine water | 0.0018 mg/l |
| Sebacic acid (111-20-6/203-845-5) | PNEC | Sediment (marine water) | 0.0547 mg/kg sedi- ment dw |

8.2. Exposure controls

Personal Protective Equipment Symbols











Eye / face protection

Wear eye protection.

Hand protection

Wear protective gloves. Recommended gloves: Nitrile.

Glove Thickness: 0.11mm Breakthrough time: 8 hours

No specific hygiene procedures noted, but good personal hygiene practices are always advisable,

especially when working with chemicals.

Wash contaminated skin thoroughly after handling.

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Other skin protection

Wash skin thoroughly after handling.

Respiratory protection

Provide adequate ventilation.

Environmental exposure controls

Avoid discharge into drains.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state

Solid

Colour

White.

<u>Odour</u>

No data available

Melting point / freezing point

131 - 137 °C

Boiling point or initial boiling point and boiling range

294 °C

Flammability

No data available

Lower and upper explosion limit

No data available

Flash point

No data available

Auto-ignition temperature

No data available

Decomposition temperature

No data available

<u>р</u>Н

No data available

Kinematic viscosity

No data available

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Solubility

No data available

Partition coefficient n-octanol/water

log Pow: 1.5 at 23 °C

Vapour pressure

No data available

Density and/or relative density

1.21 g/cm³

Relative vapour density

No data available

Explosive properties

Not classified as explosive.

Particle characteristics

No data available

9.2. Other information

No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

There are no known reactivity hazards associated with this product.

10.2. Chemical stability

Stable under the prescribed storage conditions.

10.3. Possibility of hazardous reactions

Violent reactions possible with:

Strong oxidising agents.

Bases.

Strong acids.

10.4. Conditions to avoid

Heating.

10.5. Incompatible materials

Strong oxidising agents. Bases. Reducing Agents.

10.6. Hazardous decomposition products

See section 5.

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SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008 Acute toxicity

| Product / Substance name CAS / EC no. | Dose descriptor | Value / Dose | Exposure route | Test animals |
|---|-----------------|--------------|----------------|--------------|
| Sebacic acid 111-20-6 / 203-845-5 | LD50 | >5000 mg/kg | Oral | Rat |
| Sebacic acid 111-20-6 / 203-845-5 | LD50 | >2000 mg/kg | Dermal | Rat |

Skin corrosion/irritation

| Product / Substance name CAS / EC no. | Result | Species |
|---------------------------------------|---------------------|---------|
| Sebacic acid 111-20-6 / 203-845-5 | No skin irritation. | Rabbit |

Serious eye damage/irritation

| Product / Substance name CAS / EC no. | Result | Species |
|--|--------------------|---------|
| Sebacic acid 111-20-6 / 203-845-5 | No eye irritation. | Rabbit |

Respiratory or skin sensitisation

| Product / Substance name CAS / EC no. | Result | Species | Method / Guideline |
|---------------------------------------|-----------|------------|---------------------|
| Sebacic acid 111-20-6 / 203-845-5 | Negative. | Guinea Pig | Intracutaneous test |

Germ cell mutagenicity

| Product / Substance name CAS / EC no. | Result | Metabolic activation / Exposure | Species | Method / Guideline |
|---|-----------|--|------------------------|--------------------|
| Sebacic acid 111-20-6 / 203-845-5 | Negative. | with and without meta- bolic activation | Salmonella typhimurium | Ames test |

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Aspiration hazard

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

11.2. Information on other hazards

No data available

SECTION 12: Ecological information

12.1. Toxicity

Acute fish toxicity

| Product / Substance name CAS / EC no. | Measurement type | Value / Result | Duration of exposure | Species |
|---|------------------|----------------|----------------------|-----------------------------------|
| Sebacic acid 111-20-6 / 203-845-5 | LC50 | >100 mg/l | 96 hours | Brachydanio rerio (Zebra Fish) |

Acute algae toxicity

| Product / Substance name CAS / EC no. | Measurement type | Value / Result | Duration of exposure | Species |
|---|------------------|----------------|----------------------|----------------------|
| Sebacic acid 111-20-6 / 203-845-5 | semi-static test | 38.7 mg/l | 72 hours | Skeletonema costatum |

Acute crustacean toxicity

| Product / Substance name CAS / EC no. | Measurement type | Value / Result | Duration of exposure | Species |
|---|------------------|----------------|----------------------|---------------|
| Sebacic acid 111-20-6 / 203-845-5 | EC50 | >100 mg/l | 48 hours | Daphnia magna |

12.2. Persistence and degradability <u>Persistence and degradability</u>

| Product / Substance name CAS / EC no. | Type of test | Duration | Result | Degradation |
|---|--------------|----------|--------|---------------------------------------|
| Sebacic acid 111-20-6 / 203-845-5 | aerobic | 7 days | 98% | The product is readily biodegradable. |

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12.3. Bioaccumulative potential

No data available

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

No data available

12.6. Endocrine disrupting properties

This product does not contain any known or suspected endocrine disruptors.

12.7. Other adverse effects

No data available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal considerations

Dispose of contents/container in accordance with local/regional/national/international regulations.

SECTION 14: Transport information

14.1. UN number

Not applicable

14.2. UN proper shipping name

Not applicable

14.3. Transport hazard class(es)

Not applicable

14.4. Packing group

Not applicable

14.5. Environmental hazards

Not applicable

14.6. Special precautions for user

Not applicable

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

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SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture <u>EU regulations</u>

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006. This material safety data sheet complies with the requirements of Regulation (EU) 2020/878.

National regulations

No data available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

No data available