



(Succinic Anhydride)
DATE PREPARED: 11/8/2017

Section 1. Product and Company Identification

Product Name Succinic Anhydride

CAS Number 108-30-5

Parchem - fine & specialty chemicals

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EMERGENCY RESPONSE NUMBER

CHEMTEL

Toll Free US & Canada: 1 (800) 255-3924

All other Origins: 1 (813) 248-0585

Collect Calls Accepted

Section 2. Hazards Identification

Classification of the substance or mixture GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Acute toxicity, Oral (Category 4), H302 Skin corrosion (Category 1B), H314 Serious eye damage (Category 1), H318 Respiratory sensitization (Category 1), H334

Skin sensitization (Category 1), H317

Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335

GHS Label Elements

Pictograms:



Signal word: DANGER

Hazard and precautionary statements Hazard Statements

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H335 May cause respiratory irritation.

Precautionary Statements

P260 Do not breathe dust or mist.

P264 Wash skin thoroughly after handling.

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



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P271 Use only outdoors or in a well-ventilated area.

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

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

P285 In case of inadequate ventilation wear respiratory protection.

P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.

P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.

P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.

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

P342 + P311 If experiencing respiratory symptoms: Call a POISON CENTER/doctor.

P363 Wash contaminated clothing before reuse.

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

P405 Store locked up.

P501 Dispose of contents/container to an approved waste disposal plant.

Hazards not otherwise classified (HNOC) or not covered by GHS: None

Section 3. Composition / Information on Ingredients

Common Name Succinic Anhydride **Synonym(s)** Dihydro-2,5-furandione

Formula C₄H₄O₃
CAS Number 108-30-5

| COMPONENT | CAS NUMBER | CONCENTRATION |
|--------------------|------------|---------------|
| Succinic Anhydride | 108-30-5 | 90 - 100% |

Section 4. First Aid Measures

Description of first-aid measures

General advice: Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

Inhalation: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

Skin Contact: Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.

Eye Contact: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Continue rinsing eyes during transport to hospital.

Ingestion: Do NOT induce vomiting. Never give anything by mouth to an unconscious person.



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Rinse mouth with water. 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. Indication of any immediate medical attention and special treatment needed: No data available

Section 5. Firefighting Measures

Extinguishing media

Suitable extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special hazards arising from the substance or mixture: No data available

Advice for firefighters: Wear self-contained breathing apparatus for firefighting if necessary.

Further information: No data available

Section 6. Accidental Release Measures

Personal precautions, protective equipment, and emergency procedures: Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist, or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

Environmental precautions: Do not let product enter drains. **Methods and materials for containment and cleaning up:** Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

Reference to other sections: For disposal see section 13.

Section 7. Handling and Storage

Precautions for safe handling: Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs. Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.

Conditions for safe storage, including any incompatibilities: Keep container tightly closed in a dry and well-ventilated place. Store under inert gas. Moisture sensitive



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Section 8. Exposure Controls / Personal Protection

Control parameters

Components with workplace control parameters: Contains no substances with occupational exposure limit values.

Derived No Effect Level (DNEL)

| Derived No Lilect Level (DIALL) | | | | |
|---------------------------------|-----------------------|----------------------------|------------------------|--|
| Application Area | Exposure Route | Health Effect | Value | |
| Workers | Inhalation | Acute local effects | 0.41 mg/m ³ | |
| Workers | Skin Contact | Long-term systemic effects | 83.3 mg/kg BW/d | |
| Workers | Inhalation | Long-term systemic effects | 10 mg/m ³ | |
| Workers | Inhalation | Long-term local effects | 0.41 mg/m ³ | |
| Workers | Skin Contact | Acute systemic effects | 167 mg/kg BW/d | |
| Workers | Inhalation | Acute systemic effects | 10 mg/m ³ | |

Predicted No Effect Concentration (PNEC)

| Compartment | Value |
|------------------------------|-----------|
| Marine Water | 0.01 mg/l |
| Fresh Water | 0.1 mg/l |
| Sewage Treatment Plant | 3 mg/l |
| Aquatic Intermittent Release | 1 mg/l |

Exposure controls

Appropriate engineering controls: Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection: Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body Protection: Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection: Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate



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government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure: Do not let product enter drains.

Section 9. Physical and Chemical Properties

Information on basic physical and chemical properties

Appearance: Crystalline

Color: White Odor: Pungent

Odor Threshold: No data available **pH:** 2.7 at 10 g/l at 20°C (68°F)

Melting point/freezing point: 118 - 120°C (244 - 248°F) - lit. Initial boiling point and boiling range: 261°C (502°F) - lit.

Flash point: 157°C (315°F)

Evaporation rate: No data available

Flammability (solid, gas): No data available

Upper/lower flammability or explosive limits: No data available

Vapor pressure: 1 hPa (1 mmHg) at 92°C (198°F)

Vapor density: No data available Relative density: No data available

Water solubility: 62.9 g/l at 20°C (68°F) - OECD Test Guideline 105 **Partition coefficient (n-Octanol/water):** log Pow: 2.44 at 40°C (104°F)

Auto-ignition temperature: No data available **Decomposition temperature:** No data available

Viscosity: No data available

Explosive properties: No data available **Oxidizing properties:** No data available

Other safety information Bulk density: 550 - 600 kg/m³

Section 10. Stability and Reactivity

Reactivity: No data available

Chemical stability: Stable under recommended storage conditions.

Possibility of hazardous reactions: No data available

Conditions to avoid: No data available

Incompatible materials: Strong oxidizing agents, Alcohols, Amines, Acids

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions: Carbon oxides

Other decomposition products: No data available

In the event of fire: see section 5





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Section 11. Toxicological Information

Acute toxicity

LD50 Oral - Rat - male and female: 1,794.9 mg/kg

(OECD Test Guideline 401) **Inhalation:** No data available

LD50 Dermal - Rat - male and female: > 2,000 mg/kg

(OECD Test Guideline 402)

Skin corrosion/irritation

Skin - in vitro assay Result: Corrosive

(OECD Test Guideline 431)

Serious eye damage/eye irritation

Eyes - Rabbit Result: Corrosive

Respiratory or skin sensitization

in vivo assay - Mouse

Result: May cause sensitization by skin contact.

(OECD Test Guideline 429)

Germ cell mutagenicity

No data available reverse mutation assay

S. typhimurium Result: negative

Carcinogenicity

This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification.

IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (Succinic anhydride)

IARC: No component of this product, present at levels greater than or equal to 0.1%, is identified as probable, possible or confirmed human carcinogen by IARC.

NTP: No component of this product, present at levels greater than or equal to 0.1%, is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product, present at levels greater than or equal to 0.1%, is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity: No data available

Specific target organ toxicity - single exposure: No data available Specific target organ toxicity - repeated exposure: No data available

Aspiration hazard: No data available

Additional Information Repeated dose toxicity

Rat - male and female - Oral - OECD Test Guideline 408



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RTECS: WN0875000

burning sensation, Cough, wheezing, laryngitis, Shortness of breath, spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Section 12. Ecological Information

Toxicity

Toxicity to fish

semi-static test LC50 - Danio rerio (zebra fish): > 100 mg/l (96 h)

(OECD Test Guideline 203) Remarks: Read-across (Analogy)

Toxicity to daphnia and other aquatic invertebrates

Immobilization EC50 - Daphnia magna (Water flea): > 100 mg/l (48 h)

(OECD Test Guideline 202) Remarks: Read-across (Analogy)

Toxicity to algae

Growth inhibition EC50 - Pseudokirchneriella subcapitata: > 100 mg/l (72 h)

(OECD Test Guideline 201) Remarks: Read-across (Analogy)

Persistence and degradability

Biodegradability aerobic - Exposure time 28 d Result: 96.55% - Readily biodegradable.

Remarks: Read-across (Analogy)

Bioaccumulative potential: No data available

Mobility in soil: No data available

Results of PBT and vPvB assessment: PBT/vPvB assessment not available as chemical safety

assessment not required/not conducted

Other adverse effects: No data available

Section 13. Disposal Considerations

Waste Treatment Methods: Dispose of product and contaminated packaging in accordance with all local, state, and federal environmental control regulations.

Section 14. Transport Information

DOT (US)

UN number: 3261

Class: 8

Packing group: **■**

Proper shipping name: Corrosive Solid, Acidic, Organic, N.O.S. (Succinic anhydride)



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Reportable Quantity (RQ): Poison Inhalation Hazard: No

IMDG

UN number: 3261

Class: 8

Packing group: II EMS-No: F-A, S-B

Proper shipping name: Corrosive Solid, Acidic, Organic, N.O.S. (Succinic anhydride)

IATA

UN number: 3261

Class: 8

Packing group: **II**

Proper shipping name: Corrosive Solid, Acidic, Organic, N.O.S. (Succinic anhydride)

Section 15. Regulatory Information

SARA 302 Components: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

Acute Health Hazard

Massachusetts Right to Know Components

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right to Know Components

Succinic anhydride (CAS-No. 108-30-5)

Revision Date: 1993-02-16

New Jersey Right to Know Components

Succinic anhydride (CAS-No. 108-30-5)

Revision Date: 1993-02-16

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

HMIS Rating Health: 3

Flammability: 1
Reactivity: 0



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NFPA Rating Health: 3

Flammability: 1 Reactivity: 0

Section 16. Other Information

Disclaimer: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product.

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