

Safety Data Sheet according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations Issue date: 09/03/2019 Version: 1.0

| SECTION 1: Identification | | |
|---|---|--|
| 1.1. Identification | | |
| Product form | : Mixture | |
| Trade name | : Dodecenylsuccinic anhydride (DDSA) | |
| Product code | : 00563 | |
| Formula | : C16H26O3 | |
| Synonyms | : Dihydro-3-(tetrapropenyl)furan-2,5-dione / Tetrapropenyl Succinic Anhydride | |
| 1.2. Recommended use and restriction | | |
| Recommended use | : Use as laboratory reagent, Manufacture of substances | |
| 1.3. Supplier | | |
| Supplier Polysciences 400 Valley Road Warrington, PA 18976 - United States T +1 215 343 6484 - F +1 215 343 0214 info@polysciences.com - www.polysciences. | <u>com</u> | |
| 1.4. Emergency telephone number | | |
| Emergency number | : 24-hour emergency phone number ChemTel 1-800-255-3924 | |
| SECTION 2: Hazard(s) identification | n | |
| 2.1. Classification of the substance or | | |
| GHS US classification | | |
| Serious eye damage/eye irritation Category 2 Causes serious eye irritation Skin sensitization, Category 1 May cause an allergic skin reaction Hazardous to the aquatic environment – Chronic Hazard May cause long lasting harmful effects to aquatic life Category 4 Category statements | | |
| GHS US labeling | | |
| Hazard pictograms (GHS US) | | |
| Signal word (GHS US) | : Warning | |
| Hazard statements (GHS US) | : May cause an allergic skin reaction Causes serious eye irritation May cause long lasting harmful effects to aquatic life | |
| Precautionary statements (GHS US) | Avoid breathing dust/fume/gas/mist/vapors/spray. Wash hands, forearms and face thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection. If on skin: Wash with plenty of water. | |
| 2.3. Other hazards which do not result | in classification | |
| No additional information available | | |
| 2.4. Unknown acute toxicity (GHS US) | | |
| Not applicable | | |
| | on on ingradianta | |
| SECTION 3: Composition/Informati | | |
| 3.1. Substances | | |
| Not applicable | | |
| 3.2. Mixtures | | |

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| Name | Product identifier | % | GHS US classification |
|------------------------------------|----------------------|----------|--|
| Dodecenylsuccinic anhydride (DDSA) | (CAS-No.) 26544-38-7 | 91 – 100 | Eye Irrit. 2, H319 Skin Sens. 1A, H317 Aquatic Chronic 4, H413 |

Full text of hazard classes and H-statements : see section 16

| SECTION 4: First-aid measures | |
|---|---|
| 4.1. Description of first aid measures | |
| First-aid measures after inhalation | : Remove person to fresh air and keep comfortable for breathing. |
| First-aid measures after skin contact | : Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention. |
| First-aid measures after eye contact | : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. |
| First-aid measures after ingestion | : Call a poison center/doctor/physician if you feel unwell. |
| 4.2. Most important symptoms and e | ffects (acute and delayed) |
| Symptoms/effects after skin contact | : May cause an allergic skin reaction. |
| Symptoms/effects after eye contact | : Eye irritation. |
| 4.3. Immediate medical attention and | special treatment, if necessary |
| Treat symptomatically. | |
| SECTION 5: Fire-fighting measure | es |
| 5.1. Suitable (and unsuitable) exting | Jishing media |
| Suitable extinguishing media | : Water spray. Dry powder. Foam. Carbon dioxide. |
| 5.2. Specific hazards arising from the | e chemical |
| Hazardous decomposition products in case fire | of : Toxic fumes may be released. |
| 5.3. Special protective equipment an | d precautions for fire-fighters |
| Protection during firefighting | : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing. |
| SECTION 6: Accidental release m | easures |
| 6.1. Personal precautions, protective | equipment and emergency procedures |
| 6.1.1. For non-emergency personnel | |
| Emergency procedures | : Ventilate spillage area. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapors/spray. |
| 6.1.2. For emergency responders | |
| Protective equipment | Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection". |
| 6.2. Environmental precautions | |
| Avoid release to the environment. | |
| 6.3. Methods and material for contain | nment and cleaning up |
| Methods for cleaning up | : Take up liquid spill into absorbent material. |
| Other information | : Dispose of materials or solid residues at an authorized site. |
| 6.4. Reference to other sections | |
| For further information refer to section 13. | |
| SECTION 7: Handling and storage | |
| 7.1. Precautions for safe handling | |
| Precautions for safe handling | : Ensure good ventilation of the work station. Avoid contact with skin and eyes. Wear personal protective equipment. Avoid breathing dust/fume/gas/mist/vapors/spray. |
| Hygiene measures | Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. |
| 7.2. Conditions for safe storage, incl | uding any incompatibilities |
| | |
| Storage conditions | : Store in a well-ventilated place. Keep cool. Store at room temp. |

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| 8. | 1. Control parameters |
|----|---|
| | Dodecenylsuccinic anhydride (DDSA) |
| | No additional information available |
| | Dodecenylsuccinic anhydride (DDSA) (26544-38-7) |
| | No additional information available |

8.2. Appropriate engineering controls

Appropriate engineering controls Environmental exposure controls : Ensure good ventilation of the work station.: Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:

Protective gloves

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

Personal protective equipment symbol(s):



| SECTION 9: Physical and chemical properties | | |
|---|---|--|
| 9.1. Information on basic physical and ch | emical properties | |
| Physical state | : Liquid | |
| Appearance | : Clear, yellow liquid. | |
| Color | : Colorless | |
| Odor | : Mixture contains one or more component(s) which have the following odour: | |
| Odor threshold | : No data available | |
| рН | : No data available | |
| Melting point | : Not applicable | |
| Freezing point | : No data available | |
| Boiling point | : No data available | |
| Flash point | : No data available | |
| Relative evaporation rate (butyl acetate=1) | : No data available | |
| Flammability (solid, gas) | : Not applicable. | |
| Vapor pressure | : No data available | |
| Relative vapor density at 20°C | : No data available | |
| Relative density | : No data available | |
| Solubility | : No data available | |
| Partition coefficient n-octanol/water (Log Pow) | : No data available | |
| Auto-ignition temperature | : No data available | |
| Decomposition temperature | : No data available | |
| Viscosity, kinematic | : No data available | |
| | | |

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| Viscosity, dynamic | : No data available |
|----------------------|---------------------|
| Explosion limits | : No data available |
| Explosive properties | : No data available |
| Oxidizing properties | : No data available |

9.2. Other information

No additional information available

| SECTION 10: Stability and reactivity | | | |
|--|--|--|--|
| 10.1. Reactivity | | | |
| The product is non-reactive under normal conditions of use, storage and transport. | | | |
| 10.2. Chemical stability | | | |
| Stable under normal conditions. | | | |
| 10.3. Possibility of hazardous reactions | | | |
| No dangerous reactions known under normal conditions of use. | | | |
| 10.4. Conditions to avoid | | | |
| None under recommended storage and handling conditions (see section 7). | | | |
| 10.5. Incompatible materials | | | |
| No additional information available | | | |
| 10.6. Hazardous decomposition products | | | |
| Under normal conditions of storage and use, hazardous decomposition products should not be produced. | | | |

| SECTION 11: Toxicological information | | |
|---|--|--|
| 11.1. Information on toxicological effe | cts | |
| Acute toxicity (oral) | : Not classified | |
| Acute toxicity (dermal) | : Not classified | |
| Acute toxicity (inhalation) | : Not classified | |
| Dodecenylsuccinic anhydride (DDSA) | | |
| LD50 oral rat | 2550 mg/kg | |
| ATE US (oral) | 2550 mg/kg body weight | |
| Dodecenylsuccinic anhydride (DDSA) (| 26544-38-7) | |
| LD50 oral rat | 2550 mg/kg | |
| Skin corrosion/irritation | : Not classified | |
| Serious eye damage/irritation | : Causes serious eye irritation. | |
| Respiratory or skin sensitization | : May cause an allergic skin reaction. | |
| Germ cell mutagenicity | : Not classified | |
| Carcinogenicity | : Not classified | |
| Reproductive toxicity | : Not classified | |
| STOT-single exposure | : Not classified | |
| STOT-repeated exposure | : Not classified | |
| Aspiration hazard | : Not classified | |
| Viscosity, kinematic | : No data available | |
| Symptoms/effects after skin contact | : May cause an allergic skin reaction. | |
| Symptoms/effects after eye contact | : Eye irritation. | |
| SECTION 12: Ecological informati | on | |
| 12.1. Toxicity | | |

| SECT | ION 12: Ecological information | | |
|---------|--------------------------------|---|-----|
| 12.1. | Toxicity | | |
| Ecolo | gy - general | : May cause long lasting harmful effects to aquatic life. | |
| 12.2. | Persistence and degradability | | |
| | tional information available | | |
| 05/10/2 | 0000 | | 1/6 |

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| 12.3. | Bioaccumulative potential |
|---------|------------------------------|
| No addi | tional information available |
| 12.4. | Mobility in soil |
| No addi | tional information available |
| | |
| 12.5. | Other adverse effects |
| No addi | tional information available |

| SECTION 13: Disposal conside | erations |
|------------------------------------|---|
| 13.1. Disposal methods | |
| Waste treatment methods | : Dispose of contents/container in accordance with licensed collector's sorting instructions. |
| Department of Transportation (DOT) | |
| In accordance with DOT | |
| Not applicable | |

Transportation of Dangerous Goods

Not applicable

Transport by sea

Not applicable

Air transport

Not applicable

| SECTION 15: Regulatory information | | |
|---|---|--|
| 15.1. US Federal regulations | | |
| Dodecenylsuccinic anhydride (DDSA) | | |
| Listed on the United States TSCA (Toxic Substances Control Act) inventory | | |
| EPA TSCA Regulatory Flag | TP - TP - indicates a substance that is the subject of a proposed TSCA section 4 test rule. | |
| Dodecenylsuccinic anhydride (DDSA) (26544-38-7) | | |
| Listed on the United States TSCA (Toxic Substances Control Act) inventory | | |
| EPA TSCA Regulatory Flag | TP - TP - indicates a substance that is the subject of a proposed TSCA section 4 test rule. | |

15.2. International regulations

CANADA

| Dodecenylsuccinic anhydride (DDSA) | |
|---|--|
| Listed on the Canadian DSL (Domestic Substances List) | |
| Dodecenylsuccinic anhydride (DDSA) (26544-38-7) | |
| Listed on the Canadian DSL (Domestic Substances List) | |
| EU-Regulations | |

| Dodecenylsuccinic anhydride (DDSA) | | |
|------------------------------------|--|---|
| | Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances) |) |

Dodecenylsuccinic anhydride (DDSA) (26544-38-7)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

National regulations

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| Dodecenylsuccinic anhydride (DDSA) | |
|--|----------------------------|
| Listed introduction on Australian Industrial Chemicals Introduction Scheme Listed on IECSC (Inventory of Existing Chemical Substances Produced or I Listed on the Japanese ENCS (Existing & New Chemical Substances) inve Listed on the Japanese ISHL (Industrial Safety and Health Law) Listed on KECL/KECI (Korean Existing Chemicals Inventory) Listed on NZIoC (New Zealand Inventory of Chemicals) Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substa Listed on the TCSI (Taiwan Chemical Substance Inventory) | mported in China) ntory |
| Dodecenylsuccinic anhydride (DDSA) (26544-38-7) | |
| Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory) Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China) Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory Listed on the Japanese ISHL (Industrial Safety and Health Law) Listed on KECL/KECI (Korean Existing Chemicals Inventory) Listed on NZIoC (New Zealand Inventory of Chemicals) Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances) Listed on the TCSI (Taiwan Chemical Substance Inventory) | |

SECTION 16: Other information

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SDS US (GHS HazCom 2012)

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