

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 30.11.2010

Version number 1

Revision: 18.03.2009

## 1 Identification of the substance/mixture and of the company/undertaking

- **Product identifier**
- **Trade name:** 2-Dodecenylsuccinic acid anhydride
- **Synonyma** DDSA
- **Article number:** 20755
- **CAS Number:**  
25377-73-5
- **EINECS Number:**  
246-917-1
- **Relevant identified uses of the substance or mixture and uses advised against**
- **Application of the substance / the preparation** Laboratory chemicals
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
SERVA Electrophoresis GmbH  
Carl-Benz-Str. 7  
D-69115 Heidelberg  
Tel.: +49 6221 13840-0  
FAX: +49 6221 13840-10  
msds.info@serva.de
- **Information department:** Product Safety department Tel.: +49 6221 13840-35
- **Emergency telephone number:** +49 6131 19240 (university hospital Mainz)

**SERVA**  
Electrophoresis

## 2 Hazards identification

- **Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS07

Skin Irrit. 2 H315 Causes skin irritation.  
Eye Irrit. 2 H319 Causes serious eye irritation.  
STOT SE 3 H335 May cause respiratory irritation.

- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**



Xi; Irritant

R36/37/38: Irritating to eyes, respiratory system and skin.

- **Classification system:**

The classification was made according to the latest editions of the EU-lists, and expanded upon from company and literature data.

- **Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**  
The substance is classified and labelled according to the CLP regulation.
- **Hazard pictograms** GHS07
- **Signal word** Warning

- **Hazard-determining components of labelling:** Void

- **Hazard statements**

H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H335 May cause respiratory irritation.

- **Precautionary statements**

P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

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- P302+P352 *IF ON SKIN: Wash with plenty of soap and water.*  
 P305+P351+P338 *IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.*  
 P362 *Take off contaminated clothing and wash before reuse.*  
 P321 *Specific treatment (see on this label).*

· **Labelling according to EU guidelines:**

*Observe the general safety regulations when handling chemicals*  
*The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials*

· **Code letter and hazard designation of product:**

*Xi Irritant*

· **Risk phrases:**

*36/37/38 Irritating to eyes, respiratory system and skin.*

· **Safety phrases:**

- 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.*  
*28 After contact with skin, wash immediately with plenty of soap and water.*  
*36/37/39 Wear suitable protective clothing, gloves and eye/face protection.*  
*60 This material and its container must be disposed of as hazardous waste.*

· **Special labelling of certain preparations:**

*Only for trade users / technical specialists*

· **Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

**\* 3 Composition/information on ingredients**

- **Chemical characterization: Substances**
- **CAS No. Description:**  
*25377-73-5 dodecenylsuccinic anhydride*
- **Identification number(s):**
- **EINECS Number:** 246-917-1
- **Description:**
- **Empirical formula:**  $C_{16}H_{26}O_3$
- **MW:** 266,4

**\* 4 First aid measures**

- **Description of first aid measures**
- **After inhalation** *Supply fresh air and to be sure call for a doctor.*
- **After skin contact** *Immediately wash with water and soap and rinse thoroughly.*
- **After eye contact**  
*Rinse opened eye for several minutes under running water. If symptoms persist, consult doctor.*
- **After swallowing** *Drink copious amounts of water and provide fresh air. Call for doctor immediately.*

**\* 5 Firefighting measures**

- **Extinguishing media**
- **Suitable extinguishing agents**  
*CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.*
- **For safety reasons unsuitable extinguishing agents** *Water with full jet.*
- **Special hazards arising from the substance or mixture**  
*In case of fire, the following can be released:*

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- Carbon monoxide (CO)
- **Advice for firefighters**
- **Protective equipment:** Wear self-contained respiratory protective device.

**6 Accidental release measures**

- **Personal precautions, protective equipment and emergency procedures** Wear protective clothing.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Ensure adequate ventilation.
- **Reference to other sections**  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

**7 Handling and storage**

- **Handling**
- **Precautions for safe handling**  
Prevent formation of aerosols.  
Keep away from heat and direct sunlight.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location.
- **Information about storage in one common storage facility:**  
Do not store together with oxidizing and acidic materials.
- **Further information about storage conditions:** Keep receptacle tightly sealed.

**8 Exposure controls/personal protection**

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**
- **Components with limit values that require monitoring at the workplace:** Not required.
- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment**
- **General protective and hygienic measures**  
Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing  
Wash hands before breaks and at the end of work.  
Avoid contact with the eyes and skin.
- **Breathing equipment:**  
Short term filter device:  
Filter P2.
- **Protection of hands:**  
Protective gloves.  
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.  
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

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- **Material of gloves**  
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
- **Penetration time of glove material**  
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **For the permanent contact of a maximum of 15 minutes gloves made of the following materials are suitable:**  
Rubber gloves  
PVC gloves
- **Eye protection:** Tightly sealed goggles.
- **Body protection:** Protective work clothing.

## 9 Physical and chemical properties

### · Information on basic physical and chemical properties

#### · General Information

#### · Appearance:

Form:	Viscous
Colour:	Light yellow
Odour:	Characteristic

#### · Change in condition

Melting point/Melting range: undetermined  
Boiling point/Boiling range: undetermined

· **Flash point:** > 150°C

· **Danger of explosion:** Product does not present an explosion hazard.

· **Density at 20°C:** 1.2 g/cm<sup>3</sup>

#### · Solubility in / Miscibility with

Water: Not miscible or difficult to mix

## 10 Stability and reactivity

### · Reactivity

### · Chemical stability

· **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

### · Possibility of hazardous reactions

Reacts with strong acids and oxidizing agents

Reacts with amines

· **Hazardous decomposition products:** No dangerous decomposition products known

## 11 Toxicological information

### · Information on toxicological effects

#### · Acute toxicity:

#### · LD/LC50 values that are relevant for classification:

Oral	LD50	2550 mg/kg (rat)
Dermal	LD50	6200 mg/kg (rabbit)

#### · Primary irritant effect:

· **on the skin:** Irritant to skin and mucous membranes.

· **on the eye:** Irritating effect.

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· **Sensitization:** No sensitizing effects known.

**12 Ecological information**

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability**
- **Other information:** The product is biodegradable.
- **Additional ecological information:**
- **General notes:**  
Water hazard class 1 (German Regulation) (Assessment by list): slightly hazardous for water.  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

**13 Disposal considerations**

- **Waste treatment methods**
- **Recommendation**  
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

**14 Transport information**

- **Land transport ADR/RID (cross-border)**
- **ADR/RID class:** -
- **Maritime transport IMDG:**
- **IMDG Class:** -
- **Air transport ICAO-TI and IATA-DGR:**
- **ICAO/IATA Class:** -
- **UN "Model Regulation":** -
- **Special precautions for user** Not applicable.
- **Transport/Additional information:** Not dangerous according to the above specifications.

**15 Regulatory information**

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **National regulations**
- **Water hazard class:** Water hazard class 1 (Assessment by list): slightly hazardous for water.
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

**16 Other information**

*This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.*

- **Department issuing MSDS:** Product safety department
- **Contact:** +49 6221 13840-35

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**· Abbreviations and acronyms:**

*ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)*

*RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)*

*IMDG: International Maritime Code for Dangerous Goods*

*IATA: International Air Transport Association*

*IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)*

*ICAO: International Civil Aviation Organization*

*ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)*

*GHS: Globally Harmonized System of Classification and Labelling of Chemicals*

*EINECS: European Inventory of Existing Commercial Chemical Substances*

*CAS: Chemical Abstracts Service (division of the American Chemical Society)*

*LC50: Lethal concentration, 50 percent*

*LD50: Lethal dose, 50 percent*

**· \* Data compared to the previous version altered.**

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