

Safety Data Sheet

According to 1907/2006/EC, Article 31

Revision: 07/10/2023

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

- **Product Identifier** - DDSA
- **Article Number** - 21340, 21341
- **CAS Number:** 26544-38-7
- **EC Number:** 247-781-6
- **Relevant identified uses of the substances or mixture and uses advised against.**
Laboratory chemicals, Manufacture of substances.
- **Application of the substance/preparation:** Hardener for epoxy resins.
- **Details of the supplier of the safety data sheet**

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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.

Label elements

Labelling according to Regulation (EC) No 1272/2008

The product has been classified and labelled according to the CLP regulation.

Hazard Pictograms



GHS07

Signal word: Warning

Hazard statements

H315

Causes skin irritation

H319

Causes serious eye irritation

Precautionary statements

P280

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

P305+P351+P338

IF IN EYES: Rinse cautiously with water for several minutes. Remove

	contact lenses, if present and easy to do. Continue rinsing.
P321	Specific treatment (see on this label).
P362	Take off contaminated clothing and wash before reuse.
P332+P313	If skin irritation occurs: Get medical advice/attention.
P337+P313	If eye irritation persists: Get medical advice/attention.

Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable

vPvB: Not applicable

3. Composition/information on ingredients

Chemical characterization: Substances

CAS No. [26544-38-7]

Chemical characterization: Natural product

Synonyms: DDSA, Dodecenylsuccinic anhydride

Formula: $C_{16}H_{26}O_3$

Molecular Weight: 266.38 g/mol

Identification number(s)

EC number: 247-781-6

4. First aid measures

Description of first aid measures

General information:

Consult a physician. Show this safety data sheet to the doctor in attendance.

After inhalation:

If breathed in, move person into fresh air. If not breathing, give artificial respiration.

Consult a physician.

After skin contact: Immediately wash with water and soap and rinse thoroughly.

Consult a physician.

After eye contact:

Rinse opened eye for 15 minutes under running water. Then consult a doctor.

After swallowing:

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Most important symptoms and effects, both acute and delayed

No further relevant information available.

Indication of any immediate medical attention and special treatment needed

No further relevant information available.

5. Firefighting measures

Extinguishing media

Suitable extinguishing agents:

CO₂, alcohol-resistant foam, dry chemical or water spray.

Special hazards arising from the substance or mixture. Carbon oxides

Advice for firefighters

Protective equipment: Wear self-contained breathing apparatus for firefighting if necessary.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Keep unprotected persons away.

Environmental precautions:

Do not allow product to reach sewage system or any water course.

Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Keep in suitable, closed containers for disposal.

Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7. Handling and storage

Handling:

Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. Normal measures for preventive fire protection.

Information about fire and explosion protection: No special measures required.

Conditions for safe storage, including any incompatibilities

Store in a cool place. Keep container tightly closed in a dry and well-ventilated place.

Storage:

Requirements to be met by storerooms and receptacles: No special requirements.

Information about storage in one common storage facility: Not required.

Further information about storage conditions: Keep container tightly sealed.

Special end use(s): No further relevant information available.

8. Exposure controls/personal protection

Additional information about design of technical facilities: No further data; see item 7.

Control parameters

Ingredients with limit values that require monitoring at the workplace: Not required

Additional information: The lists valid during the making were used as basis.

Exposure controls:

Personal protective equipment:

General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed. Avoid contact with eyes and skin. Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and the end of workday.

Respiratory protection:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

Protection of hands:

Protective gloves

The glove material has to be impermeable and resistant to the product, the substance, the preparation. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices.

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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

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.

Eye protection

Tightly sealed goggles

9. Physical and chemical properties

Information on basic physical and chemical properties**General information****Appearance:**

Form:	Viscous fluid
Color:	Light yellow. Clear
Odor:	Not determined
Odor threshold:	Not determined
pH value:	Not determined

Change in condition

Melting point/Melting range:	Undetermined
Boiling point/Boiling range:	150°C (at 4 hPa)
Flash point:	113°C (closed cup)
Flammability:	Not applicable
Ignition temperature:	
Decomposition temperature:	Not determined
Self-igniting:	Not determined
Danger of explosion:	Product does not present an explosion hazard
Explosion limits:	
Lower:	Not determined
Upper:	Not determined
Vapor pressure at 20°C:	Not determined

Density at 20°C:	1.0 g/cm ³
Relative density:	Not determined
Vapor density:	Not determined
Evaporation rate:	Not determined
Solubility in/	
Miscibility with water:	Not determined
Partition coefficient:	Not determined
Viscosity:	
Dynamic:	Not determined
Kinematic:	Not determined
Other information:	No further relevant information available

10. Stability and reactivity

Reactivity

Chemical stability Stable under recommended storage conditions.

Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

Possibility of hazardous reactions: No dangerous reactions known.

Conditions to avoid: No further relevant information available.

Incompatible materials: Strong oxidizing agents, amines, bases

Hazardous decomposition products: No dangerous decomposition products known.

11. Toxicological information

Information on toxicological effects

Acute toxicity:

Primary irritant effect:

on the skin: Irritant to skin and mucous membranes.

on the eye: Irritating effect.

Sensitization: No sensitizing effects known.

Additional toxicological information:

To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.

12. Ecological information

Toxicity

Aquatic toxicity: No further relevant information available

Persistence and degradability: No further relevant information available

Behavior in environmental systems:

Bioaccumulative potential: No further relevant information available

Mobility in soil: No further relevant information available

Ecotoxicological effects:

Remark: Very toxic for fish

Additional ecological information:

Results of PBT and vPvB assessment**PBT:** Not applicable**vPvB:** Not applicable.**Other adverse effects:** No further relevant information available.**13. Disposal considerations****Waste treatment methods****Recommendation**

Must not be disposed together with household garbage. Do not allow product to reach sewage system. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Recommendation: Disposal must be made according to official regulations.**14. Transport information****UN-Number****ADR, IMDG, IATA** Void**UN proper shipping name** Not dangerous goods**ADR** Void**IMDG** Void**IATA** Void**Transport hazard class(es)****ADR, IMDG****Class** Void**IATA****Class** Void**Packing group****ADR, IMDG, IATA** Void**Environmental hazards:** Void**Marine pollutant:** No**Special marking (ADR):** Void**Special precautions for user:** Not applicable

**Transport in bulk according
to Annex II of MARPOL 73/78
and the IBC Code:**

Not applicable

Transport/Additional information:**ADR**

Limited quantities (LQ)
UN “Model Regulation”:

Not applicable
-

15. **Regulatory information**

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

No further relevant information available.

Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16. **Other Information**

This information is based on our present knowledge and should assist the user with the safe handling of this material when properly applied. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Contact

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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)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

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

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Skin Irrit. 2: Skin corrosion/irritation. Hazard Category 2

Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2