

Safety Data Sheet

acc. to OSHA HCS

Printing date 05/03/2018

Reviewed on 11/20/2008

1 Identification

- **Product identifier**
- **Trade name:** o-Phthalaldehyde
- **Article number:** 32800
- **CAS Number:**
643-79-8
- **EC number:**
211-402-2
- **Application of the substance / the mixture** 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:**
Medical Emergency Information in case of poisoning:
Poison Information Center Mainz - Phone: +49 (0) 6131 19240
(advisory service in German or English language)



2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS06

Acute Tox. 3 H301 Toxic if swallowed.



GHS05

Skin Corr. 1B H314 Causes severe skin burns and eye damage.

Eye Dam. 1 H318 Causes serious eye damage.



GHS07

Skin Sens. 1 H317 May cause an allergic skin reaction.

- **Label elements**
- **GHS label elements**
The substance is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms** GHS05, GHS06, GHS07
- **Signal word** Danger
- **Hazard statements**
Toxic if swallowed.
Causes severe skin burns and eye damage.
May cause an allergic skin reaction.
- **Precautionary statements**
Do not breathe dusts or mists.

(Contd. on page 2)

Safety Data Sheet

acc. to OSHA HCS

Printing date 05/03/2018

Reviewed on 11/20/2008

Trade name: o-Phthalaldehyde

(Contd. of page 1)

Wash thoroughly after handling.
 Do not eat, drink or smoke when using this product.
 Contaminated work clothing must not be allowed out of the workplace.
 Wear protective gloves/protective clothing/eye protection/face protection.
 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
 If swallowed: Rinse mouth. Do NOT induce vomiting.
 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
 Continue rinsing.
 Specific treatment (see on this label).
 If skin irritation or rash occurs: Get medical advice/attention.
 Wash contaminated clothing before reuse.
 Store locked up.
 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



· **HMIS-ratings (scale 0 - 4)**



· **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**
643-79-8 phthalaldehyde
- **Identification number(s)**
- **EC number:** 211-402-2
- **Description:**
- **Empirical formula:** $C_8H_6O_2$
- **MW:** 134.1

4 First-aid measures

- **Description of first aid measures**
- **General information:**
Take affected persons out into the fresh air.
Immediately remove any clothing soiled by the product.
- **After inhalation:** Supply fresh air and to be sure call for a doctor.
- **After skin contact:** Immediately rinse with water.
- **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:** Drink copious amounts of water and provide fresh air. Immediately call a doctor.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.

(Contd. on page 3)

US

Safety Data Sheet

acc. to OSHA HCS

Printing date 05/03/2018

Reviewed on 11/20/2008

Trade name: o-Phthalaldehyde

(Contd. of page 2)

- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
CO₂ extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture**
In case of fire, the following can be released:
Carbon monoxide (CO)
- **Advice for firefighters**
- **Protective equipment:**
Mouth respiratory protective device.
Do not inhale explosion gases or combustion gases.

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.
Inform respective authorities in case of seepage into water course or sewage system.
- **Methods and material for containment and cleaning up:**
Pick up mechanically.
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
- **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**
Thorough dedusting.
Ensure good ventilation/exhaustion at the workplace.
- **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 only in the original receptacle.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Store under lock and key and with access restricted to technical experts or their assistants only.
Keep receptacle tightly sealed.
- **Specific end use(s)** No further relevant information available.

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.

(Contd. on page 4)

Safety Data Sheet

acc. to OSHA HCS

Printing date 05/03/2018

Reviewed on 11/20/2008

Trade name: o-Phthalaldehyde

(Contd. of page 3)

- **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 P3
- **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
- **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:**
 - Natural rubber, NR
 - Nitrile rubber, NBR
- **Eye protection:** Safety glasses
- **Body protection:** Protective work clothing

9 Physical and chemical properties

- **Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**
 - Form:** Crystalline powder
 - Color:** Light yellow
 - Odor:** uncharacteristic
- **pH-value (53 g/l) at 20 °C (68 °F):** 7
- **Change in condition**
 - Melting point/Melting range:** 54 - 57 °C (129 - 135 °F)
 - Boiling point/Boiling range:** 120 °C (248 °F)
- **Flash point:** Not applicable.
- **Flammability (solid, gaseous):** Product is not flammable.
- **Danger of explosion:** Product does not present an explosion hazard.
- **Density at 20 °C (68 °F):** 0.37 g/cm³ (3.088 lbs/gal)
- **Bulk density at 20 °C (68 °F):** ca. 530 kg/m³
- **Solubility in / Miscibility with**
 - Water:** Soluble.

(Contd. on page 5)

US

Safety Data Sheet

acc. to OSHA HCS

Printing date 05/03/2018

Reviewed on 11/20/2008

Trade name: *o*-Phthalaldehyde

(Contd. of page 4)

· **Other information**

There are no more data available.

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions**
 - Reacts with strong alkali.
 - Reacts with oxidizing agents.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** Carbon monoxide and carbon dioxide

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

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

Oral	LD50	178 mg/kg (rat)
	LC50/96h	0.072 mg/l (Forelle)

- **Primary irritant effect:**
- **on the skin:** Caustic effect on skin and mucous membranes.
- **on the eye:** Strong caustic effect.
- **Sensitization:** Sensitization possible through skin contact.
- **Additional toxicological information:**
 - Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.
- **Carcinogenic categories**
- **IARC (International Agency for Research on Cancer)** Substance is not listed.
- **NTP (National Toxicology Program)** Substance is not listed.
- **OSHA-Ca (Occupational Safety & Health Administration)** Substance is not listed.

12 Ecological information

· **Toxicity**· **Aquatic toxicity:**

EC50/48h	0.087 mg/l (Daphnia magna)
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- **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:**
- **General notes:**
 - Water hazard class 3 (Self-assessment): extremely hazardous for water
 - Do not allow product to reach ground water, water course or sewage system, even in small quantities.
 - Must not reach bodies of water or drainage ditch undiluted or unneutralized.
 - Danger to drinking water if even extremely small quantities leak into the ground.
 - Also poisonous for fish and plankton in water bodies.
 - Very toxic for aquatic organisms

(Contd. on page 6)

Safety Data Sheet

acc. to OSHA HCS

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Reviewed on 11/20/2008

Trade name: *o*-Phthalaldehyde









(Contd. of page 5)

- **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 of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:**
Empty contaminated packagings thoroughly. They can be recycled after thorough and proper cleaning. Packagings that cannot be cleansed are to be disposed of in the same manner as the product.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport information

- | | |
|---|--|
| · UN-Number | UN2923 |
| · DOT, ADR, IMDG, IATA | |
| · UN proper shipping name | 2928 TOXIC SOLID, CORROSIVE, ORGANIC, N.O.S. (<i>o</i> -Phthalaldehyde) |
| · ADR | CORROSIVE SOLID, TOXIC, N.O.S. (Phthalaldehyde) |
| · IMDG | Corrosive solid, toxic, n.o.s. (Phthalaldehyde) |
| · IATA | |
| · Transport hazard class(es) | |
| · DOT | |
|    | |
| · Class | 8 Corrosive substances |
| · Label | 8 (6.1) |
| · ADR, IMDG | |
|    | |
| · Class | 8 Corrosive substances |
| · Label | 8 (6.1) |
| · IATA | |
|   | |
| · Class | 8 Corrosive substances |
| · Label | 8 (6.1) |
| · Packing group | II |
| · DOT, ADR, IMDG, IATA | |

(Contd. on page 7)

US

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(Contd. of page 6)

· Environmental hazards:	Environmentally hazardous substance, solid; Marine Pollutant
· Marine pollutant:	Yes (P)
	Symbol (fish and tree)
· Special marking (ADR):	Symbol (fish and tree)
· Special precautions for user	Warning: Corrosive substances
· Danger code (Kemler):	86
· EMS Number:	F-A,S-B
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	
· DOT	
· Remarks:	Special marking with the symbol (fish and tree).
· UN "Model Regulation":	UN2923, CORROSIVE SOLID, TOXIC, N.O.S., 8(6.1), II

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Section 355 (extremely hazardous substances):** Substance is not listed.
- **Section 313 (Specific toxic chemical listings):** Substance is not listed.
- **TSCA (Toxic Substances Control Act):** Substance is listed.
- **Proposition 65** Substance is not listed.
- **Chemicals known to cause cancer:** Substance is not listed.
- **Chemicals known to cause reproductive toxicity for females:** Substance is not listed.
- **Chemicals known to cause reproductive toxicity for males:** Substance is not listed.
- **Chemicals known to cause developmental toxicity:** Substance is not listed.
- **Carcinogenicity categories**
- **EPA (Environmental Protection Agency)** Substance is not listed.
- **TLV (Threshold Limit Value established by ACGIH)** Substance is not listed.
- **NIOSH-Ca (National Institute for Occupational Safety and Health)** Substance is not listed.
- **GHS label elements**
- The substance is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms** GHS05, GHS06, GHS07
- **Signal word** Danger
- **Hazard statements**
- Toxic if swallowed.
- Causes severe skin burns and eye damage.
- May cause an allergic skin reaction.
- **Precautionary statements**
- Do not breathe dusts or mists.
- Wash thoroughly after handling.
- Do not eat, drink or smoke when using this product.
- Contaminated work clothing must not be allowed out of the workplace.
- Wear protective gloves/protective clothing/eye protection/face protection.
- IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
- If swallowed: Rinse mouth. Do NOT induce vomiting.
- If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
- IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
- Continue rinsing.
- Specific treatment (see on this label).
- If skin irritation or rash occurs: Get medical advice/attention.
- Wash contaminated clothing before reuse.

(Contd. on page 8)

Safety Data Sheet

acc. to OSHA HCS

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Trade name: o-Phthalaldehyde

(Contd. of page 7)

Store locked up.

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

· **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 SDS:** Product safety department· **Contact:** +49 6221 13840-35· **Date of preparation / last revision** 05/03/2018 / 3· **Abbreviations and acronyms:**

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

ICAO: International Civil Aviation Organisation

PBT: persistent, bioaccumulative, toxic substance (REACH)

vPvB: very persistent, very bioaccumulative substance (REACH)

REACH: Regulation concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals

CLP: Regulation on classification, labelling and packaging of substances and mixtures

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

DOT: US Department of Transportation

IATA: International Air Transport Association

P: Marine Pollutant

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

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

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Acute Tox. 3: Acute toxicity – Category 3

Skin Corr. 1B: Skin corrosion/irritation – Category 1B

Eye Dam. 1: Serious eye damage/eye irritation – Category 1

Skin Sens. 1: Skin sensitisation – Category 1

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