Printing date 05/03/2018

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Product identifier	CFD1/A
Trade name: <u>a-D-Glucose</u>	serving scientists
Article number: 22700 CAS Number: 50-99-7 EC number: 200-075-1 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	Sisch
Information department: Product Safety department T Emergency telephone number: Medical Emergency Information in case of poisoning: Poison Information Center Mainz - Phone: +49 (0) 612 (advisory service in German or English language)	~ <sup>0</sup> .
Hazard(s) identification	
Classification of the substance or mixture The substance is not classified according to the Global Label elements GHS label elements Void Hazard pictograms Void Signal word Void Hazard statements Void Classification system:	ly Harmonized System (GHS).
Classification of the substance or mixture The substance is not classified according to the Global Label elements GHS label elements Void Hazard pictograms Void Signal word Void Hazard statements Void Classification system: NFPA ratings (scale 0 - 4) Health = 0 Fire = 0	ly Harmonized System (GHS).

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Trade name: α-D-Glucose

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#### 3 Composition/information on ingredients

- · Chemical characterization: Substances
- CAS No. Description 50-99-7 glucose
- Identification number(s)
- EC number: 200-075-1
- · Description:
- · Empirical formula:  $C_6 H_{12} O_6$
- · MW: 180.2

#### 4 First-aid measures

- · Description of first aid measures
- · General information: No special measures required.
- After inhalation: Supply fresh air; consult doctor in case of complaints.
- After skin contact: Immediately rinse with water.
- After eye contact: Rinse opened eye for several minutes under running water.
- After swallowing: If symptoms persist consult doctor.
- · Information for doctor:
- · 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** *Fire-fighting 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. • 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: No special measures required.

#### 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: Pick up mechanically.
- Reference to other sections No dangerous substances are released.

#### 7 Handling and storage

- Handling:
- · Precautions for safe handling No special measures required.
- 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: No special requirements.
- · Information about storage in one common storage facility: Not required.
- Further information about storage conditions: Store in dry conditions.

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# Safety Data Sheet acc. to OSHA HCS

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• *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.
- · Exposure controls
- · Personal protective equipment:
- General protective and hygienic measures:
- The usual precautionary measures for handling chemicals should be followed.
- Breathing equipment: Suitable respiratory protective device recommended.
- · Protection of hands:

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 trough 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

- · Eye protection: Safety glasses
- · Body protection: Protective work clothing

## 9 Physical and chemical properties

Appearance:		
Form:	Powder	
Color:	White	
Odor:	Odorless	
pH-value (100 g/l) at 20 °C (68 °F	7): 5.0 - 7.0	
Change in condition Melting point/Melting range: Boiling point/Boiling range:	151 °C (304 °F) Undetermined.	
Flash point:	Not applicable.	
Flammability (solid, gaseous):	Product is not flammable.	
Danger of explosion:	Product does not present an explosion hazard.	
Density:	Not determined.	
Solubility in / Miscibility with Water at 20 °C (68 °F):	470 g/l	

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• Other information

No further relevant information 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 No dangerous reactions known.
- · Conditions to avoid No further relevant information available.
- Incompatible materials: No further relevant information available.
- · 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 25600 mg/kg (rat)

- · Primary irritant effect:
- on the skin: No irritant effect.
- · on the eye: No irritating effect.
- · Sensitization: No sensitizing effects known.
- Additional toxicological information:

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us. The substance is not subject to classification.

- · 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: 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.
- Additional ecological information:
- · General notes:
- Water hazard class 1 (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.
- · Other adverse effects No further relevant information available.

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## **13 Disposal considerations**

• Waste treatment methods

• *Recommendation:* Smaller quantities can be disposed of with household waste.

· Uncleaned packagings:

- Recommendation: Disposal must be made according to official regulations.
- Recommended cleansing agent: Water, if necessary with cleansing agents.

#### 14 Transport information

r ransport information	
· UN-Number · DOT, ADR, ADN, IMDG, IATA	Void
· UN proper shipping name · DOT, ADR, ADN, IMDG, IATA	Void
· Transport hazard class(es)	
· DOT, ADR, ADN, IMDG, IATA · Class	Void
· Packing group · DOT, ADR, IMDG, IATA	Void
· Environmental hazards:	Not applicable.
· Special precautions for user	Not applicable.
• Transport in bulk according to Annex I MARPOL73/78 and the IBC Code	I of Not applicable.
· Transport/Additional information:	Not dangerous according to the above specifications.
· UN ''Model Regulation'':	Void

## **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.
- · Cancerogenity 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 Void
- · Hazard pictograms Void
- · Signal word Void
- · Hazard statements Void
- · Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

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#### **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 / 1 · 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 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 • \* Data compared to the previous version altered.