



Material Safety Data Sheet

MSDS has been prepared in accordance with EC Directive 93/112/EEC

Section 1 Chemical Product and Company Identification

Name: Aqueous solution of dextrose		
Synonyms: D-glucose	Product type: Liquid density certified reference material	Date revised: March 2003 Previous: second issue
Manufacturer: H & D Fitzgerald Ltd. Cefn Du, Tremeirchion, St Asaph, Clwyd, LL17 0US UK		
Prepared by: Denis Fitzgerald		
Chemical family: Aqueous solution of dextrose (monosaccharide / sugar)		
Poison schedule number: None allocated		
Chemical Formula: C ₆ H ₁₂ O ₆		

Section 2 Composition / Information on ingredients

Substance name	C.A.S. No.	EINECS No.	% weight	HSCN (Tariff#)
water	7732-18-5	231-791-2	≈ 90%	28510010
dextrose	492-62-6	207-757-8	≈ 10%	17023051
Bronopol (biocide)	52-51-7	200-142-7	≈ 0.02%	

Section 3 Hazards identification

Emergency overview Colourless odourless liquid. Supplied sealed in a 10ml glass ampoule. Caution: None. Potential environmental effects: None in the quantity supplied in an ampoule.
Potential health effects Eyes: None. Skin: None. Ingestion: None. Chronic: None known. This material is not listed as carcinogenic.

Section 4 First Aid measures

Eyes: Wash eyes with water or normal saline. If symptoms develop, seek medical advice.
Skin: Wash with water.
Ingestion: None

Section 5 Fire fighting measures

Extinguishing media: Use extinguishing media appropriate for surrounding fire		
Unsuitable media: None		
Lower explosive limit: Not applicable	Upper explosive limit: Not applicable	Flash point: Not applicable
Flammability classification: Not flammable	Flame propagation: Not applicable	Ignition in air: Not applicable
Combustion hazards: Not combustible		
Protective equipment: None needed		
Unusual fire hazards: If the solution is evaporated to dryness, the resulting solid will release carbon dioxide if heated to a high temperature.		
Static charge effects: Not applicable		

Section 6 Spillage measures

Spill cleanup: Mop up liquid and place in waste disposal container.
Environmental precautions: None needed for the quantity supplied in an ampoule.

Section 7 Handling and storage

Handling precautions: Avoid contact with eyes.
Storage precautions: Store ampoule in package until ready to use. Store in a cool place if possible (less than 25°C)

Section 8 Exposure controls and personal protection

Exposure guidelines: No occupational exposure limits established.
Personal protective equipment
Eye/Face protection: Safety glasses are recommended to minimise eye contact.
Hands: Wash hands with soap before eating or drinking.

Section 9 Physical and chemical properties

Physical state: Liquid	Colour: Colourless	Odour: None
pH: 6.6	Freezing point: -1°C	Boiling point: ≈103°C
Miscibility with water: The solution mixes completely with water	Density of liquid: ≈1040 kgm ⁻³	
Vapour pressure: Slightly lower than that of water at the same temperature	Molecular weight: Anhydrous dextrose 180.16	

Section 10 Stability and reactivity

Conditions to avoid: Avoid contact with strong acids.
Incompatible materials: Reactions are unlikely at the concentration of the solution provided.
Reactivity: None known.
Hazardous decomposition: If the solution is evaporated to dryness, the resulting solid will release carbon dioxide if heated to a high temperature.
Hazardous polymerisation: None known.

Section 11 Toxicological information

Acute effects	
Acute inhalation:	Not tested
Acute ingestion:	LD ₅₀ (rat): 25800 mg/kg. (for solid dextrose)
Acute skin:	Not tested
Eye irritation:	Not tested
Skin irritation:	Not tested

Chronic effects	
Chronic ingestion:	Not tested (causes obesity)
Chronic eye:	Not tested
Chronic skin:	Not tested
Mutagenic effects:	Not tested
Reproductive effects:	Not tested
Sensitisation	Not tested

Section 12 Ecological information

Persistence / degradability: Material does not show potential to bioconcentrate from water.

Ecotoxicity: Dextrose is a naturally occurring substance.

Section 13 Disposal

For small quantities: Flush the aqueous solution down the drain / mop up with paper and dispose of as non hazardous waste.

Observe all national and local environmental regulations.

Section 14 Transport information

UN Number	UN shipping name	UN class
Not applicable	Not regulated	Not applicable
RID /ADR	IMDG shipping name	ICAO / IATA:
Non hazardous for rail or road	Non hazardous for sea freight	Non hazardous for air freight

Section 15 Regulatory information

European classification:

Label symbols: none

Section 16 Other information

Reason for revision: water content added in section 2

Disclaimer: H&D Fitzgerald believes that data given here is accurate. It is derived from published information about solid dextrose. No warranty, expressed or implied, is intended. The data is provided for your information and consideration when using dextrose solution as a certified reference material for the calibration of density meters. H&D Fitzgerald assumes no legal responsibility for its use.