

# SAFETY DATA SHEET (SDS)


## Benedict's solution

Issue date: 18-08-2020

### Section 1: Product Identifier and Chemical Identity

Product Identifier	
Product Name:	Benedict's solution
Product Codes:	MC4.1, MC4.3
Other means of identification:	
Chemical formula, alternative names:	Benedict's reagent
Recommended use of the chemical and restrictions on use	
Recommended Use:	For laboratory use only.
Suppliers name, address and phone number	
Suppliers Name:	Southern Biological
Suppliers ABN:	94 630 703 810
Suppliers Address:	1/44 Rushdale Street Knoxfield Victoria 3180 Australia
Suppliers Phone No.:	1300 138 561
Suppliers Fax No.:	+613 9753 3896
Emergency Phone number (BH)	1300 138 561

### Section 2: Hazard Identification

Classification of the Hazardous Chemical	
Hazard Category	Chronic Aquatic Toxicity Category 2, Acute Toxicity Oral Category 4, Skin Irritation Category 2, Serious Eye Irritation Category 2A
Label elements	
Hazard Pictograms:	
Signal Word:	Warning
Hazard Statements:	May be harmful if swallowed Causes mild skin irritation Causes severe eye irritation Toxic to aquatic life with long lasting effects
Precautionary Statements:	Use personal protective equipment. Ensure adequate ventilation. Avoid contact with skin, eyes and clothing. Do not ingest.

Other Hazards	
Results of PBT and vPvB assessment:	PBT: Not applicable VPvB: Not applicable

### Section 3: Composition/information on ingredients

Ingredients			
Name	CAS	Proportion	Hazard Class
Sodium citrate	68-04-2	13%	None
Sodium carbonate	497-19-8	8%	Solid: Serious Eye Damage/Eye Irritation Category 2A, Acute Toxicity - Inhalation Dust / Mist Category 4
Copper (II) Sulphate	7758-99-8	1.3%	Solid: Hazardous to the aquatic environment - Acute Category 1, Acute Toxicity - Oral Category 4
Water	7732-18-5	Balance	None

### Section 4: First Aid Measures

General Information	
After Inhalation:	Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms, call a doctor.
After skin contact:	Wash with water and soap and rinse thoroughly. If skin irritation occurs, seek medical advice.
After eye contact:	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
After swallowing:	Do not induce vomiting. Wash out mouth with water. Obtain emergency medical attention. Call a POISON CENTRE or doctor if you feel unwell.
Information for doctor:	
Most important symptoms and effects both acute and delayed:	Treat symptomatically.
Indications of any immediate medical attention and special treatment needed	No further relevant information available.

### Section 5: Firefighting measures

Extinguishing media	
Suitable extinguishing agents:	Use media suitable to extinguish surrounding fire.
Special hazards arising for the substance or mixture:	No further relevant information available.
Advice for firefighters	
Protective equipment:	Do not enter the fire area without proper protective equipment including respiratory equipment.

## Section 6: Accidental release measures

General Information	
Personal precautions, protective equipment and emergency procedures:	No health effects expected from the clean up of this material if contact can be avoided. Follow personal protective equipment recommendations found in Section 8 of this SDS. Prevent the spread of any spill to minimise harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum.
Environmental precautions:	Prevent entry to sewers and public waters. Avoid release to the environment. Notify authorities if spill to sewers or public waters.
Methods and material for containment and cleaning up:	Dispose of contaminating material as waste according to item 13. Ensure adequate ventilation. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation.
Reference to other sections:	See Section 7 for information on safe handling. See Section 8 for information on protective equipment. See Section 13 for disposal information.

## Section 7: Handling and Storage

General Information	
Precautions for safe handling:	Ensure good ventilation/exhaustion at the workplace. Do not eat drink or smoke when using this product. Wash contaminated clothing before reuse.
Information about fire – and explosion protection:	No special measures required.
Conditions for safe storage, including any incompatibilities.	
Storage:	Store in cool dry area out of direct sunlight and incompatible materials. Keep containers closed when not in use. Store in suitably labelled containers. Keep away from oxidising materials and strong acids.
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. Keep out of direct sunlight.
Specific end use(s):	No further relevant information available.

## Section 8: Exposure controls/personal protection.

General information			
Additional information about design of technical facilities:		No further data: see section 7	
Control parameters:			
Ingredients with limit values that require monitoring at the workplace:			
Name	STEL	TWA	Footnote

Copper (II) sulphate	n/a	1 mg/m <sup>3</sup>	Dust and mist, as Cu
Additional information		The lists valid during the making were used as basis.	
Exposure Controls:			
General protective and hygienic measures:		Use only in systems, processes and procedures in which effective ventilation has been provided. 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 eyes.	
Respiratory protection:		In case of significant exposure use respiratory filter device. Not normally required.	
Clothing / Foot-wear and equipment		No special requirements.	
Protection of hands:		PVC or rubber gloves	
Eye protection:		Tightly sealed goggles	
Skin protection:		Laboratory Coat	

## Section 9: Physical and chemical properties

Appearance:	
Form:	Liquid
Colour:	Blue
Odour:	Not determined
Odour Threshold:	Not determined
pH value:	Not determined
Change in Condition:	
Melting point/Melting range:	Not determined
Boiling point/Boiling range:	Not determined
Flash point:	Not determined
Flammability (solid / gaseous)	Not determined
Ignition Temperature	
Decomposition temperature:	Not determined
Self-igniting:	Not determined
Danger of explosion:	Not determined
Explosion limits	
Lower:	Not determined
Upper:	Not determined
Vapour pressure:	Not determined
Density:	Not determined
General Info	

Relative density:	Not determined
Vapour density:	Not determined
Evaporation rate:	Not determined
Solubility in/ Miscibility with water:	Soluble
Partition coefficient (n-octanol/water):	Not determined
Viscosity:	Not determined
Other information:	Not determined

## Section 10: Stability and reactivity

Reactivity	
General	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:	None known
Incompatible materials:	Water-reactive materials, strong oxidising agents, hot aluminium, strong acids, strong reducing agents, hydroxylamine, hypobromite, magnesium
Hazardous decomposition products:	None known

## Section 11: Toxicological information

Information on toxicological effects	
Acute symptoms	Alkalosis, respiratory irritation, drooling
Chemical name	
Sodium carbonate	Oral LD50 Rat 4090 mg/kg Oral LD50 Mouse 6600 mg/kg Inhalation LC50 Rat 2300 mg/m <sup>3</sup> Inhalation LC50 Mouse 1200 mg/m <sup>3</sup> Inhalation LC50 guinea pig mg/m <sup>3</sup>
Copper (II) sulphate	Oral LD50 Rat 300 mg/kg Dermal LD50 Rat > 2000 mg/kg
Chronic Toxicity:	
General	Not classified

## Section 12. Ecological information

Toxicity	
Aquatic toxicity:	Slight ecological hazard. In high concentrations, this product may be dangerous to plants and/or wildlife.

Persistence and degradability:	Dissolved into water, adsorbs to soil, chemically transformed.
Behaviour in environmental systems	
Bio-accumulative potential:	No further relevant information available.
Mobility in soil:	No further relevant information available.
Additional ecological information	
Results of PBT and vPvB assessment	PBT: Not applicable vPvB: Not applicable
Other adverse effects:	Sodium Carbonate: HR LC50 LEPOMIS MACROCHIRUS 300 MG/L [STATIC]48 HR EC50 DAPHNIA MAGNA 265 MG/L120 HR EC50 NITZSCHIA 242 MG/L Copper (II) Sulfate: HR LC50 PIMEPHALES PROMELAS 0.6752 MG/L [STATIC].

### Section 13. Ecological information

Waste treatment methods	
Recommendation	Prevent this material from entering waterways, drains and sewers. Comply with official regulations.
Uncleaned packaging:	
Recommendation:	Disposal must be made according to official regulations.
Recommended cleansing agents:	Water, if necessary, together with cleansing agents.

### Section 14. Transport information

General	Not listed as a hazardous material.
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### Section 15. Regulatory Information

Safety health and environmental regulations/legislation specific for the substance or mixture	
Australian Inventory of Chemical Substances:	Substances are listed.
Standard for the Uniform Scheduling of Medicines and Poisons	S6
GHS label elements	None
Chemical safety assessment:	A Chemical Safety Assessment has not been carried out.

### Section 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.