

Revision: 1.2

Revision date:

05 September 2022

Date printed:

03 February 2023

Section 1. Identification

1.1 Product Identifier 4863

Product Name BENEDICT'S SOLUTION QUANTITATIVE

CAS Number Mixture

REACH Registration No A registration number is not available as the substance or its uses are exempt, the annual tonnage does not require a registration or the registration is envisaged for a later date.

1.2 Relevant identified uses of the substance or mixture & uses advised against

Uses of Material Chemical for industrial and laboratory use. Not suitable for domestic use.

1.3 Supplier Vickers Laboratories Ltd



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Section 2. Hazards Identification

2.1 Classification of the substance or mixture

Classification according to regulation 1272/2008/EC

Serious eye damage/irritation, category 1
Hazard to aquatic environment, category 1
Hazard to aquatic environment, category 1

H318: Causes serious eye damage.
H400: Very toxic to aquatic life.
H410: Very toxic to aquatic life with long lasting effects.

2.2 Label elements

Labelling according to regulation 1272/2008/EC

Signal word Danger

Hazard Pictograms



Hazard Statements Causes serious eye damage. Very toxic to aquatic life with long lasting effects.

Precautionary Statements Wash thoroughly after handling. Wear protective gloves / protective clothing / eye protection. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do and continue rinsing.

Section 3. Composition

3.2 Mixtures

Component	CAS No.	EEC No.	REACH No.	Conc w/w	CLP Classification (1272/2008/CE)
Sodium carbonate	6132-02-1	207-838-8	01-2119485498-19-XXXX	~30%	Eye Irrit. 2
Potassium thiocyanate	333-20-0	206-370-1		12.5%	Acute Tox. 4 (O),Acute Tox. 4 (D),Acute Tox. 4 (I),Eye Dam. 1,Aquatic Chronic 3
Cupric sulphate	7758-99-8	231-847-6	01-2119520566-40-XXXX	1.8%	Acute Tox. 4 (O),Eye Dam. 1,Aquatic Acute 1,Aquatic Chronic 1

Section 4. First Aid

4.1 Description of first aid measures

Eyes	Irrigate thoroughly with plenty of water for at least 10 minutes, holding the eye open. If discomfort persists OBTAIN MEDICAL ATTENTION.
Skin	Thoroughly wash off skin with soap and water. Remove contaminated clothing immediately and wash before re-use.
Inhalation	Remove from exposure.
Ingestion	Wash out the patients mouth thoroughly with water. Induce vomiting. OBTAIN MEDICAL ATTENTION URGENTLY.
Personal protection for first aiders	Wear protective gloves / eye protection.

4.2 Most important symptoms and effects, both acute & delayed.

No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed.

No further relevant information available.

Section 5. Fire Fighting

5.1 Extinguishing media

Extinguishing Media	Consider what other flammable materials are present and act accordingly.
Unsuitable Media	Nothing specified.

5.2 Special hazards arising from the substance or mixture

Hazards	May evolve toxic fumes if involved in a fire.
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5.3 Advice for firefighters

Advice for firefighters	Fire-fighters should wear protective clothing and breathing apparatus.
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Section 6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Protection	Avoid contact with eyes.
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6.2 Environmental precautions

Environmental	Notify the Environmental Agency and local Environmental Health Officer if major spillage occurs.
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6.3 Methods and material for containment and cleaning up

Major Spillage	Contain and absorb on inert material. Sweep up and transfer to a suitable container for disposal. Wash area down with copious amounts of water.
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Minor Spillage

Wash area down with copious amounts of water.

6.4 Reference to other sections

See section 8.2 for information on protective equipment and section 13 for information on disposal.

Section 7. Storage & Handling

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Do not breath vapours. Do not allow to contaminate clothing.

Ensure Local Exhaust Ventilation maintains vapour concentrations to a minimum.

7.2 Conditions for safe storage, including any incompatibilities

Well ventilated, cool, dry storage .

7.3 Specific end use(s)

See section 1.2.

Section 8. Workplace Exposure & Personal Protection

8.1 Control parameters

Component	CAS No	Concentration	Workplace Exposure Limits		
			Long Term (8hr TWA)	Short Term 15min period	
Sodium carbonate	6132-02-1	~30%	-	-	-
Potassium thiocyanate	333-20-0	12.5%	-	-	-
Cupric sulphate	7758-99-8	1.8%	-	-	-

Exposure data source(s) No occupational exposure data currently available.

8.2 Exposure controls

Respiratory Protection	In case of insufficient ventilation, wear suitable respiratory protective equipment
Hand Protection	Wear gloves.
Eye Protection	Use tightly fitting chemical splash proof glasses or goggles.
Skin Protection	Avoid contact with skin. If skin contact or contamination of clothing is likely, protective clothing must be worn.
Special Hazards	No special precautions required.

Section 9. Physical & Chemical Properties

9.1 Information on basic physical and chemical properties

Appearance	Clear blue solution.
Odour	No specific odour.
pH	Not applicable
Boiling Point	Not available
Melting Point	Not applicable
Flash Point	Not applicable
Upper Flammable Limit	Not applicable
Lower Flammable Limit	Not applicable
Auto Ignition	Not applicable
Explosive Properties	No.
Oxidising Properties	No.
Vapour Pressure	Not applicable
Relative Density	Not available
Water Solubility	Not available

9.2 Other information

No data available.

Section 10. Stability & Reactivity

10.1	Reactivity	No data available.
10.2	Chemical Stability	Stable under normal conditions
10.3	Possibility of hazardous reactions	No data available.
10.4	Conditions to Avoid	No specific conditions.
10.5	Incompatible Materials	No specific materials to avoid.
10.6	Hazardous Decomposition Products	May produce hazardous fumes if involved in a fire.

Section 11. Toxicological Information

11.1 Information on toxicological effects

Eyes	Causes serious eye damage.
Skin	Contact with the liquid may be irritating to the skin.
LD50 Skin	Not available
Ingestion	Ingestion of large amounts will produce nausea, & vomiting. Copper salts tend to cause vomiting and for this reason poisoning by ingestion is rare .
LD50 Oral	Not available
Inhalation	Presents no significant inhalation health hazard.
LD50 Inhalation	Not available
TCLo	Not available
Carcinogenicity	Not considered to be a carcinogen.
Mutagenicity	Not considered to be a mutagen.
Reproductive Effects	None identified.

Section 12. Ecological

12.1	Toxicity	Copper salts are harmful to the environment. Very Toxic to aquatic organisms and may cause long term adverse effects in the aquatic environment.
	LC50 Algal	Not available
	LC50 Crustacea	Not available
	LC50 Fish	Not available
12.2	Persistence and degradability	No data available.
12.3	Bioaccumulative potential	No data available.
12.4	Mobility in soil	No data available.
12.5	Results of PBT & vPvB assessment	Assessment not required.
12.6	Other adverse effects	None known at present.

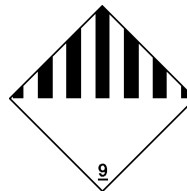
Section 13. Disposal Considerations

13.1 Waste treatment methods

Disposal Methods	Do not dispose of as domestic waste.
Contaminated Packaging	Wash out containers with water.

Section 14. Transport Information

14.1 UN Number	3082
14.2 Proper Shipping Name	Environmentally hazardous substance, liquid, N.O.S. (Cupric sulphate solution)
14.3 Transport classes	
UN classification	9
Subsidiary hazard(s)	None
Transport category	3
ADR Hazard ID	90
Tunnel Restriction Code	E
14.4 Packing Group	III
14.5 Environment hazards	Marine pollutant.
14.6 Special precautions for user	No special precautions required.
14.7 Transport in bulk	Not transported in bulk.



Section 15. Regulatory Information

15.1 Safety, health and environment regulations specific for substance/mixture.

Classification, Labeling & Packaging of Substances & Mixtures Regulations (1272/2008/CE)

Classification Serious eye damage/irritation, category 1; Hazard to aquatic environment, category 1; Hazard to aquatic environment, category 1

Signal word Danger

Hazard Pictograms



Hazard Statements H318, H410
Causes serious eye damage. Very toxic to aquatic life with long lasting effects.

Precautionary Statements P264, P280, P305+P351+P338
Wash thoroughly after handling. Wear protective gloves / protective clothing / eye protection. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do and continue rinsing.

15.2 Chemical safety assessment

Assessment not required.

Section 16. Other Information

The information contained in this document only covers the hazards presented by this material, it DOES NOT constitute a workplace risk assessment. See sections 11 for toxicological information and section 12 for ecological information.

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