PIOCHEM
LABORATORY CHEMICALS

Material Safety Data Sheet

Section1. Product Information and Company Identification			
Product name	Benedict's Reagent		
Mol.formula	Null	**Cas no**	63126-89-6
Mol.wt	Null		
Manfacture name	Pioneers for laboratory chemicals		
Brand name	Piochem		
Address	Area 540, Industrial Zone 6th October city Giza, Egypt.		
Website	www.piochem.com		
E-mail	info@piochem.com		
Phone number	+201225728304 , +201023932115		

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008
Hazardous to the aquatic environment-Chronic hazard (Category 3), H412

For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008
Pictogram

Signal word Warning

Hazard statement(s)
H412 Harmful to aquatic life with long lasting effects.

Precautionary statement(s)

P273 Avoid release to the environment.
P501 Dispose of this material and its container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3 Other hazards

The substance does not fulfill the criteria to be identified as PBT substance or vPvB substance according to Annex XIII of Regulation REACH.

SECTION 3: Composition/information on ingredients Copper (II) Sulphate Pentahydate

3.1 Mixture

Hazardous ingredients according to Regulation (EC) No 1272/2008

Component		Classification	Concentration
Potassium Thiocyanate			
CAS-No.	333-20-0	Acute Tox. 4(skin); Acute Tox. 4(inhal); Acute Tox. 4(oral); Aquatic Chronic 3; H312, H332, H302, H412	> 10 - < 15 %
Copper sulphate pentahydrate			
CAS-No.	7758-99-8	Acute Tox. 4; Skin Irrit. 2; Eye Irrit. 2; Aquatic Acute 1; Aquatic Chronic 1; H302, H315, H319, H400, H410 M-Factor - Aquatic Acute: 10	> 1 - < 5 %
EC-No.	231-847-6		
Index-No.	029-004-00-0		
Sodium carbonate			
CAS-No.	497-19-8	Eye Irrit. 2; H319	> 10 - < 15 %
EC-No.	207-838-8		
Index-No.	011-005-00-2		
Potassium Ferricyanide			
CAS-No.	13746-66-2	Eye Irrit. 2; H319	< 0.1 %
Water			
CAS-No.	7732-18-5		> 50 - < 75 %
EC-No.	231-791-2		

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice
Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled
Assure fresh air breathing. Allow the victim to rest.

In case of skin contact
Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.

In case of eye contact
Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.

If swallowed
Obtain emergency medical attention. Do NOT induce vomiting. Rinse mouth.

4.2 Most important symptoms and effects, both acute and delayed

Not expected to present a significant hazard under anticipated conditions of normal use.

4.3 Indication of any immediate medical attention and special treatment needed

Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media: Foam, Dry powder, Carbon dioxide, Water spray, Sand.
Unsuitable extinguishing media: Do not use a heavy water stream.

Surrounding fires: Use water spray or fog for cooling exposed containers.

5.2 Special hazards arising from the substance or mixture
Under fire conditions, hazardous fumes will be present.

5.3 Advice for firefighters
Protection against fire: Do not enter fire area without proper protective equipment, including respiratory protection.
Special procedures: Exercise caution when fighting any chemical fire. Avoid (reject) fire-fighting water to enter environment.

5.4 Further information
No data available

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
For emergency responders: Equip cleanup crew with proper protection. Ventilate area.
For non-emergency personnel: Evacuate unnecessary personnel.

6.2 Environmental precautions
Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters. Avoid release to the environment.

6.3 Methods and materials for containment and cleaning up
Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

6.4 Reference to other sections
See section 8. Exposure controls/personal protection

SECTION 7: Handling and storage

7.1 Precautions for safe handling
Handling: Wash hands and other exposed areas with mild soap and water before eat, drink or smoke and when leaving work.
Technical protective measures: Provide good ventilation in process area to prevent formation of vapour.

7.2 Conditions for safe storage, including any incompatibilities
Storage: Keep only in the original container in a cool, well ventilated place. Keep container closed when not in use.
Storage - away from: Strong bases, Strong acids, Sources of ignition, Direct sunlight.

7.3 Specific end use(s)
None

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

8.2 Exposure controls

Appropriate engineering controls
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection
Tightly fitting safety goggles. Faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN
166(EU).

Skin protection
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body Protection
Complete suit protecting against chemicals. Flame retardant antistatic protective clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection
Where risk assessment shows air-purifying respirators are appropriate use (US) or type ABEK (EN 14387) respirator cartridges as a backup to enginee protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure
Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

a)	Appearance	Form: liquid Colour: Bright blue
b)	Odour	Characteristic
c)	Odour Threshold	No data available
d)	pH	No data available
e)	Melting point/freezing point	No data available
f)	Initial boiling point and boiling range	No data available
g)	Flash point	No data available
h)	Evaporation rate	No data available
i)	Flammability (solid, gas)	No data available
j)	Upper/lower flammability or explosive limits	No data available
k)	Vapour pressure	No data available
l)	Vapour density	No data available
m)	Relative density	1.23 g/cm^3 at 20ºC
n)	Water solubility	Soluble in water
o)	Partition coefficient: n-octanol/water	No data available
p)	Auto-ignition temperature	No data available
q)	Decomposition temperature	No data available
r)	Viscosity	No data available
s)	Explosive properties	No data available
t)	Oxidizing properties	No data available

9.2 Other safety information
No data available

SECTION 10: Stability and reactivity

10.1 Reactivity
No data available

10.2 Chemical stability
Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions
No data available

10.4 Conditions to avoid
Direct sunlight, Extremely high or low temperatures.

10.5 Incompatible materials
Strong acids, Strong bases.

10.6 Hazardous decomposition products
Hazardous decomposition products: Fumes, Carbon monoxide, Carbon dioxide.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity
No data available

Skin corrosion/irritation
No data available

Serious eye damage/eye irritation
No data available

Respiratory or skin sensitisation
No data available

Germ cell mutagenicity
No data available

Carcinogenicity
No data available

Reproductive toxicity
No data available

Specific target organ toxicity - single exposure
No data available

Specific target organ toxicity - repeated exposure
No data available

Aspiration hazard
No data available

Additional Information
No data available

SECTION 12: Ecological information

12.1 Toxicity
Harmful to aquatic life with long lasting effects.

12.2 Persistence and degradability
May cause long-term adverse effects in the environment.

12.3 Bioaccumulative potential
No data available

12.4 Mobility in soil
No data available

12.5 Results of PBT and vPvB assessment
The substance does not fulfill the criteria to be identified as PBT substance or vPvB substance according to Annex XIII of Regulation REACH.

12.6 Other adverse effects
Environmental precautions: Avoid release to the environment.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product
Avoid release to the environment. Dispose in a safe manner in accordance with local/national regulations. Dispose of this material and its container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

Contaminated packaging
Dispose of as unused product.

SECTION 14: Transport information

14.1 UN number

ADR/RID: - 3082 IMDG: - 3082 IATA: - 3082

14.2 UN proper shipping name

ADR/RID: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
IATA: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

14.3 Transport hazard class(es)

ADR/RID: - 9 IMDG: - 9 IATA: - 9

14.4 Packaging group

ADR/RID: - III IMDG: - III IATA: - III

14.5 Environmental hazards

ADR/RID: no IMDG Marine pollutant: yes IATA: no

14.6 Special precautions for user

No data available

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

15.2 Chemical safety assessment

A Chemical Safety Assessment has been carried out for this substance.

SECTION 16: Other information

Full text of H-Statements referred to under sections 2 and 3.

H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.