SOUTHERN GROUP LABORATORY LIMITED

SAFETY DATA SHEET

SECTION 1.	IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Product name Nessler's Reagent

SGL Product code 0322

This product is a mixture

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

Identified uses Reagent for laboratory analysis

Uses advised against No information on uses against available

1.3. Details of the supplier of the safety data sheet

Supplier

Southern Group Laboratory,
Cavendish Courtyard, Sallow Road,
Weldon North Industrial Estate,
Corby, Northants,
United Kingdom
NN17 5JX

TEL: +44(0) 1536 403815
FAX: +44(0) 1536 403814
EMAIL: info@sglab.co.uk
Available 9am-5pm (UK time) Mon to Fri except UK public holidays

Emergency telephone NHS TEL (UK): 111
NHS Wales TEL (UK): 111 or 0845 46 47

SECTION 2.	HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to regulation (EC) No 1272/2008

Physical hazards

Based on available data, no classification met

Health hazards

Skin Corrosion (category 1A): H314
Germ Cell Mutagenicity (category 2): H341
Acute Toxicity – Oral (category 2): H300
Specific Target Organ Toxicity (STOT), Repeated Exposure (RE) (category 2): H373

Environmental hazards

Hazardous to the Aquatic Environment, Chronic (category 2): H411

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

2.2. Label elements

Pictogram

Signal word Danger

Hazard statements

H300: Fatal if swallowed
H314: Causes severe skin burns and eye damage
H341: Suspected of causing genetic defects
H373: May cause damage to organs through prolonged or repeated exposure
H411: Toxic to aquatic life with long lasting effects

Precautionary statements

P201: Obtain special instructions before use.
P260: Do not breathe dust/fume/gas/mist/vapours/spray.
P264: Wash hands thoroughly after handling.
P270: Do not eat, drink or smoke when using this product.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/ face protection.
P281: Use personal protective equipment as required.
P301+P330+P331+P310: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON Center or doctor/physician.
P303+P361+P353+P310: IF ON SKIN (or hair): Remove / Take off immediately all contaminated clothing. Rinse skin with water / shower. Immediately call a POISON Center or doctor/physician.
P304+P340: If INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313: IF exposed or concerned: Get medical advice / attention.
P363: Wash contaminated clothing before reuse.
P391: Collect spillage.
P501: Dispose of contents/container in accordance with national regulations.

2.3. Other hazards None

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Not applicable

3.2. Mixtures

Name	EC No.	CAS-No.	Concentration	Classification
Potassium hydroxide	215-181-3	1310-58-3	10 – 30%	Acute Toxicity 4 (oral): H302 Skin Corrosion 1A: H314
Mercury dichloride	231-299-8	7487-94-7	1 – 10%	Germ Cell Mutagenicity 2: H341 Reproductive Toxicity 2: H361f Acute Toxicity 2 (oral): H300 Specific Target Organ Toxicity (STOT), Repeated Exposure (RE) 1: H372 Skin Corrosion 1B: H314 Hazardous to the Aquatic Environment, Chronic 1: H410 Hazardous to the Aquatic Environment, Acute 1: H400

Composition comments The data shown are in accordance with Regulation (EC) No. 1272/2008.

SECTION 4. FIRST-AID MEASURES

4.1 Description of first aid measures

Inhalation Immediately remove from exposure to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms call a POISON CENTER or doctor/physician.

Ingestion Do NOT induce vomiting. Wash out mouth thoroughly with water. Immediately call a POISON CENTER or doctor/physician.

Skin contact Remove contaminated clothing immediately and wash before re-use. Wash off skin thoroughly with plenty of soap and water. Immediately call a POISON CENTER or doctor/physician.

Eye Contact Remove contact lenses, if present and easy to do. Immediately irrigate thoroughly with water for at least 15 minutes. Obtain medical advice and/or attention.

Self Protection of the first aider Wear gloves (nitrile rubber recommended). Wash hands thoroughly after handling.

4.2 Most important symptoms and effects, both acute and delayed

Toxic if absorbed through skin. Causes skin irritation. Toxic if swallowed or inhaled. Causes respiratory tract irritation.

4.3. Indication of any immediate attention and special treatment needed

Material is extremely destructive to tissue of the mucous membranes.

Notes for doctor No specific recommendations.

SECTION 5.	FIRE – FIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media Water fog, foam, carbon dioxide (CO2), dry powder

Unsuitable extinguishing media None known

Product is not combustible.

Prevent fire fighting media from entering watercourses or ground water.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products Toxic products may be liberated by fire.

5.3. Advice for firefighters

Protective actions during firefighting Wear self contained breathing apparatus (SCBA) and prevent skin contact.

SECTION 6.	ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Wear personal protective clothing as described in Section 8 of this safety data sheet. Avoid breathing vapours or aerosols. Avoid contact. Provide adequate ventilation.

6.2. Environmental precautions

Must not be released into the environment.

6.3. Methods and material for containment and cleaning up

Collect spillage using suitable inert absorbent material. Seal material in closed container avoiding the generation of aerosols or vapours. Wear personal protective clothing as recommended in Section 8. Cover drains to avoid releasing into environment. Dispose as waste requiring special attention.

6.4. Reference to other sections

Section 8 for protective measures.
Section 13 for disposal considerations.

SECTION 7.	HANDLING AND STORAGE

7.1 Precautions for safe handling

Wear personal protective clothing. Avoid contact with skin, eyes and clothing. Avoid formation of aerosols or vapours. Ensure adequate ventilation. Change contaminated clothing. Wash hands after working with material.

7.2 Conditions for safe storage, including any incompatibilities

Store according to label requirements. Keep closed.

7.3 Specific end use(s)

Use in laboratories.

SECTION 8.	EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Component	CAS No	Long Term Exposure Limit (8 hr TWA Reference Period	Short Term Exposure (15 Min Reference Period)	Basis	Comments
Potassium hydroxide	1310-58-3	Not stated	2 mg/m^3	UK. EH40 Workplace Exposure Limits	None
Mercury dichloride (mercuric chloride)	7487-94-7	0.02 mg/m^3	Not stated	UK. EH40 Workplace Exposure Limits	Mercury and divalent inorganic compounds including mercuric oxide and mercuric chloride (measured as mercury)

For those substances for which no short-term limit is specified, it is recommended that a figure of three times the long-term limit be used as a guideline for controlling short-term peaks in exposure.

8.2 Exposure controls

Engineering measures

Avoid inhalation of vapours, sprays, mists. Handle in well ventilated area. Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

Protective equipment

Eye/face protection

Eye glasses with side protection complying with Standard EN166.

Hand protection

Disposable nitrile rubber gloves complying with EC Directive 89/686/EEC and Standard EN374
Glove thickness of 0.12mm
See manufacturer's recommendations for break through times
Material tested: Not applicable

Other skin and body protection

Long sleeved clothing.

Hygiene measures

Wash hands immediately after use.

Respiratory protection

Required if vapour/aerosols are generated. Use filter complying with DIN EN 136/140.

SECTION 9.	PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance	Liquid
Colour	Pale yellow
Odour	No data available
Odour threshold	No data available
pH	No data available
Melting point/freezing point	No data available
Initial boiling point and boiling range	No data available
Flash point	No data available
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability or explosive limits	
Lower explosion limit (VOL-%)	No data available
Upper explosion limit (VOL-%)	No data available
Vapour pressure	No data available
Vapour density	No data available
Relative density	No data available
Solubility(ies)	No data available
Partition coefficient: n-octanol/water	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No data available
Explosive properties	No data available
Oxidising properties	No data available

9.2. Other information

None

SECTION 10.	STABILITY AND REACTIVITY

10.1 Reactivity

Reacts violently with the following. Water, zinc, metals, strong bases, alkali metals, strong oxidising agents, strong acids, organic materials, copper, nickel, cadmium.

Vigorous reaction with halogens, brass, aluminium, strong reducing agents, tin and zinc liberates hydrogen gas. Contact with nitromethane and other similar nitro compounds causes formation of shock sensitive salts.

10.2 Chemical stability

No data available

10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid

No data available

10.5 Incompatible materials

No data available

10.6 Hazardous decomposition products

No data available

SECTION 11.	TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

The data are based on the mixture.

Acute oral toxicity	Acute toxicity (category 2), oral: H300 Fatal if swallowed
Skin corrosion/irritation	Skin corrosion (category 1A): H314 Causes severe skin burns and eye damage
Serious eye damage/irritation	Causes severe eye damage
Respiratory or skin sensitisation	No data available
Germ cell mutagenicity	Germ cell mutagenicity (category 2): H341 Suspected of causing genetic defects
Carcinogenicity	No data available
Reproductive toxicity	No data available
STOT single exposure	No data available
STOT repeated exposure	Specific Target Organ Toxicity (STOT), Repeated Exposure (RE), (category 2): H373 May cause damage to organs through prolonged or repeated exposure
Aspiration hazard	No data available

11.2 Additional information

Toxic if absorbed through skin. Causes skin irritation. Toxic if swallowed or inhaled. Causes respiratory tract irritation.

SECTION 12.	ECOLOGICAL INFORMATION

12.1 Toxicity

Hazardous to the Aquatic Environment, Chronic (category 2): H411 Toxic to aquatic life with long lasting effects

12.2 Persistence and degradability

No information available

12.3 Bioaccumulative potential

No information available

12.4 Mobility in soil

No information available

12.5 Results of PBT and vPvB assessment

No information available

12.6 Other adverse effects

No information available

SECTION 13.	DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Dispose of in accordance with applicable local and national regulations.
Dispose as specialised waste.

Waste must not be released to sewers.

SECTION 14.	TRANSPORT INFORMATION

Land transport (ADR/RID) / Sea transport (IMDG) / Air transport (ICAO-TI/IATA-DGR)

14.1 UN number 2922

14.2 UN proper shipping name CORROSIVE LIQUID, TOXIC, N.O.S. (POTASSIUM HYDROXIDE AND MERCURY DICHLORIDE SOLUTION)

14.3 Transport hazard class(es) 8 (6.1)

14.4 Packing group II

14.5 Environmental hazards Dangerous for the environment

14.6 Special precautions for user Tunnel Restriction Code E.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable, packaged goods.

SECTION 15.	REGULATORY INFORMATION

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

EU legislation Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of Substances and mixtures (as amended).

15.2 Chemical safety assessment

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

SECTION 16.	OTHER INFORMATION

16.1 Relevant H- and EUH-phrases (number and full text)

H300: Fatal if swallowed
H302: Harmful if swallowed
H314: Causes severe skin burns and eye damage
H341: Suspected of causing genetic defects
H361: Suspected of damaging fertility or the unborn child
H372: Causes damage to organs
H373: May cause damage to organs through prolonged or repeated exposure
H400: Very toxic to aquatic life
H410: Very toxic to aquatic life with long lasting effects
H411: Toxic to aquatic life with long lasting effects

16.2 Additional information

The above information is based on present knowledge, but does not purport to be inclusive and should only be used as a guide. Southern Group Laboratory shall not be held liable for any damage resulting from handling or from contact with the above product.

The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made up material.

16.3 Revision summary

Changes to this issue Subsidiary hazard 6.1 added to Section 14.

Revision Date: 26.06.2023
Issue No: 02

END OF SAFETY DATA SHEET