

**Safety Data Sheet**  
according to UK REACH (SI 2020/1577) as amended

Issue date: 06.01.2026

Version number: 3 (replaces version 2)

Revision date: 06.01.2026

**SECTION 1: Identification of the substance/mixture and of the company/undertaking**

- **1.1 Product identifier**
- **Trade name: Ringers Solution**
- **Product Code: 20-1003**
- **Registration number Mixture**
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
- **Product category PC21 Laboratory chemicals**
- **Application of the substance / the mixture Laboratory chemicals**
- **Uses advised against None identified**
- **1.3 Details of the supplier of the safety data sheet**
- **Supplier:**  
Severn Biotech Ltd.  
Unit 2,  
Park Lane,  
Kidderminster,  
Worcestershire.  
DY11 6TJ  
UK  
Tel: 0044 1562 825286  
Fax: 0044 1562 825284  
email: info@severnbiotech.com
- **Further information obtainable from: Product safety department.**
- **1.4 Emergency telephone number:**  
Members of the public seeking specific information on poisons should contact:  
In England and Wales: NHS 111 - dial 111  
In Scotland: NHS 24 - dial 111

\* **SECTION 2: Hazards identification**

- **2.1 Classification of the substance or mixture**
- **Classification according to GB-CLP** The product is not classified, according to the GB CLP regulation.
- **2.2 Label elements**
- **Labelling according to GB-CLP** Not applicable
- **Hazard pictograms** Not applicable
- **Signal word** Not applicable
- **Hazard statements** Not applicable
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable
- **vPvB:** Not applicable
- **Determination of endocrine-disrupting properties** Not applicable

\* **SECTION 3: Composition/information on ingredients**

- **3.2 Mixtures**
- **Description:**  
Aqueous solution.  
The ingredients are not classified as hazardous or are below disclosure limits.

(Contd. on page 2)

— GB —

## Safety Data Sheet

according to UK REACH (SI 2020/1577) as amended

Issue date: 06.01.2026

Version number: 3 (replaces version 2)

Revision date: 06.01.2026

Trade name: Ringers Solution

(Contd. of page 1)

- **Dangerous components:** Not applicable

### SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **General information:** No special measures required.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Immediately rinse with water.
- **After eye contact:**
  - Check for and remove any contact lenses.
  - Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:**
  - Rinse out mouth and then drink plenty of water.
  - If symptoms persist consult doctor.
- **Information for doctor:** Treat symptomatically and supportively.
- **4.2 Most important symptoms and effects, both acute and 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: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:**
  - CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
  - Use fire extinguishing methods suitable to surrounding conditions.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **5.2 Special hazards arising from the substance or mixture**
  - In case of fire, the following can be released:
    - Carbon monoxide and carbon dioxide
    - Chlorine compounds
- **5.3 Advice for firefighters**
- **Protective equipment:**
  - Wear self-contained respiratory protective device.
  - Wear fully protective suit.
  - Do not inhale explosion gases or combustion gases.
- **Additional information**
  - Cool endangered receptacles with water spray.
  - Collect contaminated fire fighting water separately. It must not enter the sewage system.

### SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures** Ensure adequate ventilation
- **6.2 Environmental precautions:** Dilute with plenty of water.
- **6.3 Methods and material for containment and cleaning up:**
  - Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.
- **6.4 Reference to other sections**
  - See Section 7 for information on safe handling.
  - See Section 8 for information on personal protection equipment.

(Contd. on page 3)

**Safety Data Sheet**  
according to UK REACH (SI 2020/1577) as amended

Issue date: 06.01.2026

Version number: 3 (replaces version 2)

Revision date: 06.01.2026

**Trade name: Ringers Solution**

(Contd. of page 2)

See Section 13 for disposal information.

## SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**  
Prevent formation of aerosols.  
Ensure good ventilation/exhaustion at the workplace.
- **Information about fire - and explosion protection:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **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:**  
Protect from frost.  
Store in cool, dry conditions in well sealed receptacles.
- **Storage class:** 12
- **7.3 Specific end use(s)** No further relevant information available.

## \* SECTION 8: Exposure controls/personal protection

- **8.1 Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:**  
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** The lists valid during the making were used as basis.
- **8.2 Exposure controls**
- **Appropriate engineering controls** No further data; see section 7.
- **Individual protection measures, such as personal protective equipment**
- **General protective and hygienic measures:**  
The usual precautionary measures are to be adhered to when handling chemicals.  
Do not inhale gases / fumes / aerosols.  
Wash hands before breaks and at the end of work.  
Avoid contact with the eyes.  
Avoid close or long term contact with the skin.  
Do not eat, drink, smoke or sniff while working.
- **Respiratory protection:** Not necessary if room is well-ventilated.
- **Hand protection**



For prolonged contact, use protective gloves tested and approved under appropriate government standards such as NIOSH (US) or EN374 (EU).

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**  
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
- **Penetration time of glove material**  
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

(Contd. on page 4)

## Safety Data Sheet

according to UK REACH (SI 2020/1577) as amended

Issue date: 06.01.2026

Version number: 3 (replaces version 2)

Revision date: 06.01.2026

**Trade name: Ringers Solution**

(Contd. of page 3)

· **Eye/face protection**



Safety glasses with side-shields conforming to EN166.

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

· **Body protection:**



Protective work clothing

Body protection must be chosen depending on product properties, activity and possible exposure.

\* **SECTION 9: Physical and chemical properties**

· **9.1 Information on basic physical and chemical properties**

· **General Information**

· <b>Physical state</b>	Liquid
· <b>Colour:</b>	Colourless
· <b>Odour:</b>	Mild
· <b>Melting point/freezing point:</b>	Undetermined
· <b>Boiling point or initial boiling point and boiling range</b>	100 °C
· <b>Flammability</b>	Not applicable
· <b>Lower and upper explosion limit</b>	
· <b>Lower:</b>	Not determined
· <b>Upper:</b>	Not determined
· <b>Flash point:</b>	Cannot promote combustion
· <b>Decomposition temperature:</b>	Decomposition is not expected under normal conditions of use.
· <b>pH at 20 °C</b>	6 – 7
· <b>Viscosity:</b>	
· <b>Kinematic viscosity</b>	Not determined
· <b>Dynamic:</b>	Not determined
· <b>Solubility</b>	
· <b>water:</b>	Soluble.
· <b>Partition coefficient n-octanol/water (log value)</b>	Not determined
· <b>Vapour pressure at 20 °C:</b>	23 hPa
· <b>Density and/or relative density</b>	
· <b>Density at 20 °C:</b>	1.15 g/cm <sup>3</sup>
· <b>Relative density</b>	Not determined
· <b>Vapour density</b>	Not determined
· <b>Particle characteristics</b>	Not applicable

· **9.2 Other information**

· <b>Appearance:</b>	
· <b>Form:</b>	Liquid
· <b>Important information on protection of health and environment, and on safety.</b>	
· <b>Ignition temperature:</b>	Product is not self-igniting.
· <b>Explosive properties:</b>	Product does not present an explosion hazard.

(Contd. on page 5)

## Safety Data Sheet

according to UK REACH (SI 2020/1577) as amended

Issue date: 06.01.2026

Version number: 3 (replaces version 2)

Revision date: 06.01.2026

**Trade name: Ringers Solution**

(Contd. of page 4)

· <b>Solvent content:</b>	
· <b>VOC (EC)</b>	0.00 %
· <b>Change in condition</b>	
· <b>Evaporation rate</b>	Not determined
· <b>Information with regard to physical hazard classes</b>	Not applicable

### SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used and stored according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** Strong oxidising agents.
- **10.6 Hazardous decomposition products:**  
Carbon monoxide and carbon dioxide  
Chlorine compounds

### SECTION 11: Toxicological information

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
- **Acute toxicity** Based on available data, the classification criteria are not met.
- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.
- **Subacute to chronic toxicity:** Prolonged or repeated skin contact may irritate and cause dermatitis.
- **11.2 Information on other hazards**

- **Endocrine disrupting properties**  
None of the ingredients are listed.

### SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** The organic portion of the product is biodegradable.
- **12.3 Bioaccumulative potential** Product is not expected to bioaccumulate.
- **12.4 Mobility in soil** No further relevant information available.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable
- **vPvB:** Not applicable

(Contd. on page 6)

— GB —

## Safety Data Sheet according to UK REACH (SI 2020/1577) as amended

Issue date: 06.01.2026

Version number: 3 (replaces version 2)

Revision date: 06.01.2026

**Trade name: Ringers Solution**

(Contd. of page 5)

- **12.6 Endocrine disrupting properties** The product does not contain substances with endocrine disrupting properties.
- **12.7 Other adverse effects**
- **Additional ecological information:**
- **General notes:**  
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

### \* SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**  
Recommended Hierarchy of Controls:
  - Minimise waste;
  - Reuse if not contaminated;
  - Recycle, if possible; or
  - Safe disposal (if all else fails).
 Must not be disposed together with household garbage. Do not allow product to reach sewage system.  
Contact waste processors for recycling information.  
Used, degraded or contaminated product may be classified as hazardous waste. Anyone classifying hazardous waste and determining its fate must be qualified in accordance with state and international legislation.

· **UK List of Waste**

16 00 00	WASTES NOT OTHERWISE SPECIFIED IN THE LIST
16 05 00	gases in pressure containers and discarded chemicals
16 05 06*	laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals

- **Uncleaned packaging:**
- **Recommendation:**  
Empty contaminated packagings thoroughly. They may be recycled after thorough and proper cleaning.  
Disposal must be made according to official regulations.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

### SECTION 14: Transport information

· <b>14.1 UN number or ID number</b> · <b>ADR, ADN, IMDG, IATA</b>	Not applicable
· <b>14.2 UN proper shipping name</b> · <b>ADR, ADN, IMDG, IATA</b>	Not applicable
· <b>14.3 Transport hazard class(es)</b> · <b>ADR, ADN, IMDG, IATA</b> · <b>Class</b>	Not applicable
· <b>14.4 Packing group</b> · <b>ADR, IMDG, IATA</b>	Not applicable
· <b>14.5 Environmental hazards:</b> · <b>Marine pollutant:</b>	No

(Contd. on page 7)

## Safety Data Sheet

according to UK REACH (SI 2020/1577) as amended

Issue date: 06.01.2026

Version number: 3 (replaces version 2)

Revision date: 06.01.2026

**Trade name: Ringers Solution**

(Contd. of page 6)

· <b>14.6 Special precautions for user</b>	Not applicable
· <b>14.7 Maritime transport in bulk according to IMO instruments</b>	Not applicable
· <b>UN "Model Regulation":</b>	Not applicable

### SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Poisons Act**

· **Regulated explosives precursors**

None of the ingredients are listed.

· **Regulated poisons**

None of the ingredients are listed.

· **Reportable explosives precursors**

None of the ingredients are listed.

· **Reportable poisons**

None of the ingredients are listed.

- **Control Of Major Accident Hazards Regulations 2015 (COMAH)**
- **Named dangerous substances - ANNEX I** None of the ingredients are listed.

· **DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**

None of the ingredients are listed.

· **REGULATION (EU) 2019/1148**

· **Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))**

None of the ingredients are listed.

· **Annex II - REPORTABLE EXPLOSIVES PRECURSORS**

None of the ingredients are listed.

· **Regulation (EC) No 273/2004 on drug precursors**

None of the ingredients are listed.

· **Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors**

None of the ingredients are listed.

- **15.2 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. This Safety Data Sheet is supplied on a voluntary basis.

- **Department issuing SDS:** Product safety department.
- **Date of previous version:** 07.03.2025

(Contd. on page 8)

**Safety Data Sheet**  
**according to UK REACH (SI 2020/1577) as amended**

Issue date: 06.01.2026

Version number: 3 (replaces version 2)

Revision date: 06.01.2026

**Trade name: Ringers Solution**

(Contd. of page 7)

· **Version number of previous version: 2**

· **Abbreviations and acronyms:**

UK REACH: REGULATION (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals

GB CLP: REGULATION (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures.

UFI: Unique Formula Identifier

UK- REACH: The UK REACH etc. (Amendment etc.) (EU Exit) Regulations 2019 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals

GB- CLP: Retained GB CLP Regulation (EU) No. 1272/2008 as amended for Great Britain on the Classification, Labelling and Packaging of Chemicals.

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

· **\* Data compared to the previous version altered.**