

SAFETY DATA SHEET**Hydrophilic Polymer Elastomer Ball****SECTION 1: Identification of the substance/mixture and of the company/undertaking****Product identifier**

Trade name: Hydrophilic Polymer Elastomer Ball
▼ Other names / Synonyms: H-1000-0173-01-A

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

Relevant identified uses of the substance or mixture: Industrial professional use for Renishaw REVO Ultrasonic Probe 1 (RUP1) Restricted to professional users.
Uses advised against: None known.

Details of the supplier of the safety data sheet

Company and address: **Renishaw plc**
New Mills
Wotton-under-Edge,
GL12 8JR, Gloucestershire,
United Kingdom
+44 (0) 1453 524524
www.renishaw.com
E-mail: msds@renishaw.com
SDS date: 5/9/2025
SDS Version: 2.0
Date of previous version: 8/4/2024 (1.0)

Emergency telephone number

In an emergency call 995
In less severe situations call the Drugs & Poison Hotline: 6423 9119
See section 4 "First aid measures".
Emergency contact from supplier: +44 (0) 1453 524524 (UK office hours 08:00 to 17:00 UTC Monday to Thursday, 08:00 to 13:00 Friday)

SECTION 2: Hazards identification

Classified according to SS 586-2:2022.

Classification of the substance or mixture

Acute Tox. 4; H302, Harmful if swallowed.
STOT SE 3; H336, May cause drowsiness or dizziness.
STOT RE 2; H373, May cause damage to organs through prolonged or repeated exposure.

Label elements

Hazard pictogram(s):



Signal word: Warning

Hazard statement(s): Harmful if swallowed. (H302)
May cause drowsiness or dizziness. (H336)
May cause damage to organs through prolonged or repeated exposure. (H373)

Precautionary statement(s):

▼ *General* Not applicable.
▼ *Prevention* Do not breathe dust. (P260)
Wash hands and exposed skin thoroughly after handling. (P264)
Response Call a POISON CENTER/doctor if you feel unwell. (P312)
Get medical advice/attention if you feel unwell. (P314)

▼ <i>Storage</i>	Store in a well-ventilated place. Keep container tightly closed. (P403+P233)
▼ <i>Disposal</i>	Dispose of contents/container in accordance with local regulation. (P501)
Hazardous substances:	ethanediol;ethylene glycol
▼ Additional labelling:	

SECTION 3: Composition/information on ingredients

Substances

Not applicable. This product is a mixture.

Mixtures

Product/substance	Identifiers	% w/w	Classification	Note
ethanediol;ethylene glycol	CAS No.: 107-21-1 EC No.: 203-473-3	60-80%	Acute Tox. 4, H302 STOT SE 3, H336 STOT RE 2, H373	
2-Propenoic acid, homopolymer, sodium salt	CAS No.: 9003-04-7 EC No.: 618-349-8	1-3%	Eye Irrit. 2, H319	

See full text of H-phrases in section 16. Occupational exposure limits are listed in section 8, if these are available.

Other information

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SECTION 4: First aid measures

Description of first aid measures

General information:	In the case of accident: Contact a doctor or casualty department – bring the label or this safety data sheet. Contact a doctor if in doubt about the injured person's condition or if the symptoms persist. Never give an unconscious person water or other drink.
Inhalation:	Upon breathing difficulties or irritation of the respiratory tract: Bring the person into fresh air and stay with him/her.
Skin contact:	Remove contaminated clothing and shoes immediately. Ensure to wash exposed skin thoroughly with water and soap. Skin cleanser can be used. DO NOT use solvents or thinners. If skin irritation occurs: Get medical advice/attention.
Eye contact:	If in eyes: Flush eyes with water or saline water (20-30 °C) for at least 5 minutes. Remove contact lenses. Seek medical assistance and continue flushing during transport.
Ingestion:	IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.
Burns:	Not applicable.

Most important symptoms and effects, both acute and delayed

Neurotoxic effects: This product contains organic solvents, which may cause adverse effects to the nervous system. Symptoms of neurotoxicity include: loss of appetite, headache, dizziness, ringing in ears, tingling sensations of skin, sensitivity to the cold, cramps, difficulty in concentrating, tiredness, etc. Repeated exposure to solvents can result in the breaking down of the skin's natural fat layer and may result in an increased absorption potential of other hazardous substances at the area of exposure.

Indication of any immediate medical attention and special treatment needed

Call a POISON CENTER/doctor if you feel unwell.

Information to medics

Bring this safety data sheet or the label from this product.

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media: Alcohol-resistant foam, carbon dioxide, powder, water mist.
Unsuitable extinguishing media: Waterjets should not be used, since they can spread the fire.

Special hazards arising from the substance or mixture

Fire will result in dense smoke. Exposure to combustion products may harm your health. Closed containers, which are exposed to fire, should be cooled with water. Do not allow fire-extinguishing water to enter the sewage system and nearby surface waters.

If the product is exposed to high temperatures, e.g. in the event of fire, dangerous decomposition compounds are produced. These are:

Carbon oxides (CO / CO₂)

Advice for firefighters

Wear self-contained breathing apparatus and protective clothing to prevent contact. Upon direct exposure contact Drugs & Poison Hotline (tel: 6423 9119) in order to obtain further advice.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Avoid direct contact with spilled substances.

Ensure adequate ventilation, especially in confined areas.

Contaminated areas may be slippery.

Environmental precautions

Avoid discharge to lakes, streams, sewers, etc.

Keep unauthorized persons away from the spill

▼ Methods and material for containment and cleaning up

Limit spillage and collect using granular absorbent or similar materials, and dispose of it in accordance with the regulations on dangerous waste.

Limit spillage, sweep up and shovel into appropriate containers for disposal. Store in suitable, closed containers for disposal.

Wherever possible cleaning should be performed with normal cleaning agents. Avoid use of solvents.

Reference to other sections

See section 13 "Disposal considerations" on handling of waste.

See section 8 "Exposure controls/personal protection" for protective measures.

SECTION 7: Handling and storage

Precautions for safe handling

Avoid direct contact with the product.

Avoid contact during pregnancy and while nursing.

Smoking, drinking and consumption of food is not allowed in the work area.

See section 8 "Exposure controls/personal protection" for information on personal protection.

▼ Conditions for safe storage, including any incompatibilities

No special conditions required.

Recommended storage material: Always store in containers of the same material as the original container.

▼ Storage conditions: No specific requirements.

Incompatible materials: Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

Specific end use(s)

This product should only be used for applications quoted in section 1.2.

SECTION 8: Exposure controls/personal protection

Control parameters

ethanediol;ethylene glycol

Short term PEL (15 minutes) (ppm): 50

Short term PEL (15 minutes) (mg/m³): 127

Workplace Safety and Health Act (Chapter 354a, Section 65), Workplace Safety and Health (General Provisions) Regulations (G.N. No. S 134/2006) (Latest revision: January 2023)

Exposure controls

Compliance with the given occupational exposure limits values should be controlled on a regular basis.


General recommendations:	Smoking, drinking and consumption of food is not allowed in the work area.
Exposure scenarios:	There are no exposure scenarios implemented for this product.
Exposure limits:	Professional users are subjected to the legally set maximum concentrations for occupational exposure. See occupational hygiene limit values above.
Appropriate technical measures:	Apply standard precautions during use of the product. Avoid inhalation of gas or dust. Airborne gas and dust concentrations must be kept at a minimum and below current limit values (see above). Installation of a local exhaust system if normal air flow in the work room is not sufficient is recommended. Ensure emergency eyewash and showers are clearly marked.
Hygiene measures:	In between use of the product and at the end of the working day all exposed areas of the body must be washed thoroughly. Pay special attention to hands, forearms and face.
Measures to avoid environmental exposure:	Keep damming materials near the workplace. If possible, collect spillage during work.


Individual protection measures, such as personal protective equipment

Generally: Use only protective equipment with a recognized certification mark, e.g. the S-Mark.

Respiratory Equipment:	<table border="1"> <thead> <tr> <th>Type</th> <th>Class</th> <th>Colour</th> <th>Standards</th> </tr> </thead> <tbody> <tr> <td colspan="4">No special when used as intended.</td> </tr> </tbody> </table>	Type	Class	Colour	Standards	No special when used as intended.			
Type	Class	Colour	Standards						
No special when used as intended.									

Skin protection:	<table border="1"> <thead> <tr> <th>Recommended</th> <th>Type/Category</th> <th>Standards</th> </tr> </thead> <tbody> <tr> <td colspan="3">No special when used as - intended.</td> </tr> </tbody> </table>	Recommended	Type/Category	Standards	No special when used as - intended.		
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No special when used as - intended.							

▼ Hand protection:	<table border="1"> <thead> <tr> <th>Material</th> <th>Glove thickness (mm)</th> <th>Breakthrough time (min.)</th> <th>Standards</th> </tr> </thead> <tbody> <tr> <td>Nitrile</td> <td>0.4</td> <td>> 480</td> <td>EN374-2, EN16523-1, EN388</td> </tr> </tbody> </table> 	Material	Glove thickness (mm)	Breakthrough time (min.)	Standards	Nitrile	0.4	> 480	EN374-2, EN16523-1, EN388
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Eye protection:	<table border="1"> <thead> <tr> <th>Type</th> <th>Standards</th> </tr> </thead> <tbody> <tr> <td>Wear safety goggles with protective side shields in accordance with standard EN166.</td> <td>EN 166</td> </tr> </tbody> </table> 	Type	Standards	Wear safety goggles with protective side shields in accordance with standard EN166.	EN 166
Type	Standards				
Wear safety goggles with protective side shields in accordance with standard EN166.	EN 166				

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Form:	Solid
Colour:	Red
Odour:	None
▼ Odour threshold (ppm):	No data available.
pH:	Not applicable - product is a solid
▼ Density (g/cm³):	No data available.
Kinematic viscosity:	Not applicable - product is a solid
▼ Particle characteristics:	No data available.

Phase changes

Melting point/Freezing point (°C):	70
▼ Softening point/range (°C):	Does not apply to solids.
Boiling point (°C):	Not applicable - product is a solid
Vapour pressure:	Not applicable - product is a solid
Relative vapour density:	Not applicable - product is a solid

Decomposition temperature (°C):	Not applicable - product is a solid
Evaporation rate (n-butylacetate = 100):	Not applicable - product is a solid

Data on fire and explosion hazards

Flash point (°C):	Not applicable - product is a solid
Flammability (°C):	The material is not combustible.
▼ Auto-ignition temperature (°C):	No data available.
Explosion limits (% v/v):	Does not apply to solids.

Solubility

Solubility in water:	Insoluble
▼ n-octanol/water coefficient (LogKow):	No data available.
▼ Solubility in fat (g/L):	No data available.

Other information

Evaporation rate (n-butylacetate = 100):	Not applicable - product is a solid
Other physical and chemical parameters:	No data available.
▼ Oxidizing properties:	No data available.

SECTION 10: Stability and reactivity

Reactivity

No data available.

Chemical stability

The product is stable under the conditions, noted in section 7 "Handling and storage".

Possibility of hazardous reactions

None known.

Conditions to avoid

None known.

Incompatible materials

Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

▼ Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

Information on toxicological effects

▼ Acute toxicity

Product/substance	ethanediol;ethylene glycol
Species:	Rat
Route of exposure:	Oral
Test:	LD50
Result:	7712 mg/kg

Product/substance	ethanediol;ethylene glycol
Species:	Mouse
Route of exposure:	Dermal
Test:	LD50
Result:	>3500 mg/kg

Product/substance	ethanediol;ethylene glycol
Species:	Rat
Route of exposure:	Inhalation
Test:	LC50

Result: >2.5 mg/L

Product/substance 2-Propenoic acid, homopolymer, sodium salt
 Species: Rat
 Route of exposure: Oral
 Test: LD50
 Result: >5000 mg/kg

Harmful if swallowed.

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 sensitisation

Based on available data, the classification criteria are not met.

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

Product/substance ethanediol;ethylene glycol
 Target organ: Central nervous system

May cause drowsiness or dizziness.

STOT-repeated exposure

Product/substance ethanediol;ethylene glycol
 Target organ: Kidney

May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard

Based on available data, the classification criteria are not met.

Long term effects

Neurotoxic effects: This product contains organic solvents, which may cause adverse effects to the nervous system. Symptoms of neurotoxicity include: loss of appetite, headache, dizziness, ringing in ears, tingling sensations of skin, sensitivity to the cold, cramps, difficulty in concentrating, tiredness, etc. Repeated exposure to solvents can result in the breaking down of the skin's natural fat layer and may result in an increased absorption potential of other hazardous substances at the area of exposure.

SECTION 12: Ecological information

▼ Toxicity

Product/substance ethanediol;ethylene glycol
 Species: Fish, *Oncorhynchus mykiss*
 Duration: 96 hours
 Test: LC50
 Result: 41000 mg/L

Product/substance ethanediol;ethylene glycol
 Species: *Daphnia*, *Daphnia magna*
 Duration: 48 hours
 Test: EC50
 Result: 46300 mg/L

Product/substance ethanediol;ethylene glycol
 Species: Algae, *Pseudokirchneriella subcapitata*
 Duration: 96 hours
 Test: EC50

Result: 6500 mg/L

Based on available data, the classification criteria are not met.

Persistence and degradability

Based on available data, the classification criteria are not met.

▼ Bioaccumulative potential

Product/substance ethanediol;ethylene glycol
 LogKow: -1.93
 Conclusion: -

Mobility in soil

No data available.

Results of PBT and vPvB assessment

This mixture/product does not contain any substances known to fulfil the criteria for PBT and vPvB classification.

Other adverse effects

None known.

SECTION 13: Disposal considerations

Waste treatment methods

Dispose of contents/container to an approved waste disposal plant.
 Environmental Protection and Management Act 1999 (2020 Rev. Ed.)

Contaminated packing

Packaging containing residues of the product must be disposed of similarly to the product.

SECTION 14: Transport information

	14.1 UN / ID	14.2 UN proper shipping name	14.3 Hazard class(es)	14.4 PG*	14.5 Env**	Other information:
ADR	-	-	-	-	-	-
IMDG	-	-	-	-	-	-
IATA	-	-	-	-	-	-

* Packing group

** Environmental hazards

Additional information

Not dangerous goods according to ADR, IATA and IMDG.

Special precautions for user

Not applicable.

Transport in bulk according to Annex II of Marpol and the IBC Code

No data available.

SECTION 15: Regulatory information

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

Restrictions for application: Restricted to professional users.
 People under the age of 18 shall not be exposed to this product.
 Pregnant women and women breastfeeding must not be exposed to this product. The risk, and possible technical precautions or design of the workplace needed to eliminate exposure, must be considered.

Demands for specific education: No specific requirements.

Major hazard installation: Not applicable.

Additional information: Not applicable.

Sources: Employment Act 1968 (2020 Rev. Ed.)
 Environmental Protection and Management Act 1999 (2020 Rev. Ed.)
 Environmental Protection and Management Act (Chapter 94a, Section 77), Environmental Protection and Management (Hazardous Substances) Regulations (No. S 159/1999)

Globally Harmonized System of Classification and Labelling of Chemicals (GHS Rev. 8, 2019) as specified by SS 586-2 and SS 586-3:2022.

Chemical safety assessment

No

SECTION 16: Other information

Full text of H-phrases as mentioned in section 3

H302, Harmful if swallowed.

H319, Causes serious eye irritation.

H336, May cause drowsiness or dizziness.

H373, May cause damage to organs through prolonged or repeated exposure.

The full text of identified uses as mentioned in section 1

None known.

Abbreviations and acronyms

ATE = Acute Toxicity Estimate

BCF = Bioconcentration Factor

CAS = Chemical Abstracts Service

EINECS = European Inventory of Existing Commercial chemical Substances

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IARC = International Agency for Research on Cancer

IATA = International Air Transport Association

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)

OECD = Organisation for Economic Co-operation and Development

PBT = Persistent, Bioaccumulative and Toxic

PEL = Permissible Exposure Level

RCM = Regulatory Mark of Conformity

RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail

SCL = A specific concentration limit

SS = Singapore Standard

STEL = Short-term exposure limits

STOT-RE = Specific Target Organ Toxicity - Repeated Exposure

STOT-SE = Specific Target Organ Toxicity - Single Exposure

TWA = Time weighted average

UN = United Nations

UVBC = Unknown or variable composition, complex reaction products or of biological materials

VOC = Volatile Organic Compound

vPvB = Very Persistent and Very Bioaccumulative

Additional information

The classification of the mixture in regard of health hazards is in accordance with the calculation methods given by SS 586-2:2022.

The safety data sheet is validated by

Safety Data Sheet Consulting, MAE

Other

A change (in proportion to the last essential change (first cipher in SDS version, see section 1)) is marked with a triangle. The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.

It is recommended to hand over this safety data sheet to the actual user of the product. Information in this safety data sheet cannot be used as a product specification.

Country-language: SG-en