Safety Data Sheet

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This Safety Data Sheet contains information concerning the potential risks to those involved in handling, transporting and working with the material, as well as describing potential risks to the consumer and the environment. This information must be made available to those who may come into contact with the material or are responsible for the use of the material. This Safety Data Sheet is provided on a voluntary basis and follows the formatting described in the REACH Regulation (EC) No 1907/2006 and the CLP Regulation (EC) No 1272/2008.

Section 1: Identification of the substance/mixture and of the company/undertaking 1

1.1 Product identifier
Pol

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

1.3 Details of the supplier of the safety data sheet
TwistDx Ltd
Abbott House
Vanwall Business Park
Vanwall Road
Maidenhead SL6 4XE
United Kingdom
Telephone: +1-877-450-6901
E-mail: info@twistdx.co.uk

1.4 Emergency telephone number
In case of emergency Tel. +1-703-741-5970 (+1-800-424-9300 for US, Canada)

Section 2: Hazards Identification 2

2.1 Classification of the substance or mixture
Not classified as hazardous according to the CLP Regulation (EC) No 1272/2008.

2.2 Label elements
No label required according to the CLP Regulation (EC) No 1272/2008.

2.3 Other hazards
No special hazards.

Section 3: Composition 3

3.1 Substances

Not applicable, the product is a mixture

3.2 Mixtures

Name	CAS No, EC No, Registration No (if available)	Concentration	Classification
Tris	77-86-1 201-064-4	< 1%	Not classified as hazardous
Potassium chloride	231-211-8 7447-40-7	< 1%	Not classified as hazardous
Dithiothreitol	3483-12-3 222-468-7	< 1%	Acute Tox 4 H302 Skin Irrit 2 H315 Eye Irrit 2 H319 STOT SE 3 H335
Ethylenediaminetetra-acetic acid	64-02-8 200-573-9	<1%	Acute Tox 4 H302 Eye Dam. 1 H318 Acute Tox 4 H332 STOT RE 2 H373 (Respiratory tract, inhalation)
Triton X100	9002-93-1	< 1%	Acute Tox. 4 H302, Eye Irrit 2 H319 Aquatic Chronic 2 H411
Recombinant protein		< 1%	Not classified as hazardous

See section 16 for full description of R phrases and H statements.

Section 4: First Aid Measures 4

4.1 Description of first aid measures

EYE CONTACT: Wash thoroughly with water and obtain medical attention if signs of discomfort.

INHALATION: Remove from exposure. If breathing becomes difficult call a doctor.

SKIN CONTACT: Wash off with soap and water. Seek medical attention if irritation occurs.

INGESTION: If swallowed, rinse mouth with water.

4.2 Most important symptoms and effects, both acute and delayed
Prolonged or repeated exposure may case mild irritation of the skin and eyes.
Ingestion may result in nausea and discomfort.

4.3 Indication of any immediate medical attention and special treatments needed
Symptomatic treatment as required

Section 5: Firefighting Measures 5

5.1 Extinguishing media
Not combustible. Use extinguishing media appropriate to surrounding conditions.

5.2 Special hazards arising from the substance or mixture
No special hazards.

5.3 Advice for fire fighters
No special measures required.

Section 6: Accidental Release Measures 6

6.1 Personal precautions, protective equipment and emergency procedures
Remove unnecessary personnel away from area of spill or contamination. Wear suitable protective clothing including eye protection, gloves and lab coat or coveralls. See section 8 for more information.

6.2 Environmental precautions
Prevent entry into drains and watercourses.

6.3 Methods and materials for containment and clearing up
Small quantities (<500 mls) may be flushed to drain with plenty of running water. Larger quantities should be absorbed onto a suitable absorbent or paper towels and place in a sealed container for disposal. Wash spill area thoroughly with water and detergent.

6.4 References to other sections
See section 8 for further advice on protective equipment and section 13 for advice on disposal.

Section 7: Handling and Storage 7

7.1 Precautions for safe handling
Avoid unnecessary skin and eye contact. Wash thoroughly after handling and before eating and drinking.

7.2 Conditions for safe storage, including any incompatibilities
Product should be stored at -80°C to maintain efficacy.

7.3 Specific end uses(s)
Only for use as a laboratory reagent.

Section 8. Exposure Controls/Personal Protection 8

8.1 Control parameters
No exposure limits available

8.2 Exposure controls

Engineering controls
None usually required.

Respiratory protection
Not normally required.

Hand Protection
Wear suitable chemical resistant gloves. Change gloves in accordance with manufacturer recommendations. If gloves are damaged during use, remove immediately and wash hands before replacing with new gloves.

Eye protection
Wear safety glasses with side protection to prevent splashes to the eye.

Skin protection
Wear suitable protective clothing – lab coat or coveralls. These should be changed after use or if contaminated. Wash before re-use.

Environmental Exposure
Prevent unnecessary releases to the environment.

Section 9: Physical and Chemical Properties 9

9.1 Information on basic physical and chemical properties

Appearance:	Clear liquid
Odour:	No odour
Odour threshold:	Not applicable
pH:	7.5
Melting point:	Similar to water
Boiling point:	Similar to water
Flashpoint:	Not flammable
Evaporation rate:	Similar to water
Flammability (gas, solid):	Not applicable
Upper/lower flammability limits:	Not flammable
Vapour pressure:	Similar to water
Vapour density:	Similar to water
Relative density:	Approximately 1.0
Solubility in water:	Soluble
Solubility in other solvents:	No data
Partition coefficient (log Kow):	No data
Autoignition temperature:	Not flammable
Decomposition temperature:	No data
Viscosity:	No data
Explosive properties:	Not classified as explosive
Oxidising properties:	Not classified as oxidising

9.2 Other information
None

Section 10: Stability and Reactivity 10

10.1 Reactivity
No reactive hazards known

10.2 Chemical stability
Stable under normal conditions.

10.3 Possibility of hazardous reactions
Not expected to occur.

10.4 Conditions to avoid
Excessive heat.

10.5 Incompatible materials
Strong oxidisers.

10.6 Hazardous decomposition products
None known

Section 11: Toxicological Information 11

11.1 Information on toxicological effects
This product has not been tested. Judgements on the expected toxicity of this product have been made based upon consideration of its major components.

(a) acute toxicity	Not expected to be acutely toxic
(b) skin corrosion/irritation	Splashes may be mildly irritating to skin.
(c) serious eye damage/irritation	Splashes to the eye may be mildly irritating.
(d) respiratory/skin sensitisation	Contains no known sensitisers.
(e) germ cell mutagenicity	Contains no substances classified for germ cell mutagenicity.
(f) carcinogenicity	Contains no known carcinogens
(g) reproductive toxicity	Contains no known reproductive toxicants.
(h) STOT-single exposure	Contains a substance classified for respiratory irritation, however such effects are unlikely in solution and at the concentration present.
(i) STOT-repeated exposure	Contains a substance that may be harmful if inhaled, however, no adverse effects are expected from the concentrations and amounts used in this product.
(j) aspiration hazard	Contains no substances known to present an aspiration hazard.

Section 12: Ecological Information 12

This product has not been tested. Judgements on the expected environmental effects of this product have been made based upon consideration of its major components.

12.1 Toxicity
Contains a substance hazardous to aquatic life, but a the concentration present no adverse effects are anticipated from this product

12.2 Persistence and degradability
The organic components are expected to be rapidly biodegraded.

12.3 Bioaccumulative potential
None of the components are expected to bioaccumulate

12.4 Mobility in soil
All components are soluble

12.5 Results of PBT and vPvB assessment
A formal PBT/vPvB assessment has not been carried out, but none of the components are expected to be PBT or vPvB.

12.6 Other adverse effects
None known.

Section 13: Disposal Considerations 13

13.1 Waste treatment methods
Small quantities of this material (< 500 millilitres) may be disposed of by flushing with an excess of water to foul drainage. A dilution factor of at least 100 is recommended. Larger quantities of waste should be disposed of in a manner that complies with local regulations. Advice should be sought from local agencies.

Section 14: Transport Information 14

14.1	UN Number	Not classified as hazardous
14.2	UN Proper shipping name	Not applicable
14.3	Transport hazard class(es)	Not applicable
14.4	Packing group	Not applicable
14.5	Environmental hazards	Not applicable
14.6	Special precautions for user	None

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not transported in bulk

Section 15: Regulatory Information 15

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture. All components are listed as existing substances in Europe

15.2 Chemical Safety Assessment
A Chemical Safety Assessment has not been carried out for this product.

Section 16: Other Information 16

Revision information:
Revised to update to new REACH and CLP formatting requirements.

List of Abbreviations used in this SDS:

CAS	Chemical Abstracts Service
CLP	Classification, Labelling and Packaging Regulation (EC) no 1272/2008
DSD	Dangerous Substances Directive 67/548/EEC
DPD	Dangerous Preparations Directive 1999/45/EC
EC	European Community/Commission
PBT	Persistent, Bioaccumulative and Toxic
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) no 1907/2006
vPvB	very Persistent, very Bioaccumulative

References:
ECHA Classification and Labelling Inventory and Database of Disseminated Registration Dossiers

Method used for classification of mixtures:
Ingredient based approaches

R Phrases and H Statements used in Section 3

Acute Tox 4 H302	Acute Toxicity Category 4, H302 Harmful if swallowed.
Acute Tox. 4, H332	Acute Toxicity Category 4, H302 Harmful if inhaled
Aquatic Chronic 2, H411	Aquatic Chronic Toxicity Category 2, H411 Very toxic to aquatic life
Eye Dam. 1, H318	Eye Damage Category 1, H318 Causes serious eye damage
Eye irrit 2 H319	Eye Irritation Category 2, H319 Causes serious eye irritation
Skin Irrit 2 H315	Skin Irritation Category 2, H315 Causes skin irritation
STOT RE 2, H373	Specific Target Organ Toxicity Category 2, H373 May cause damage to organs
STOT SE 3 H335	Specific Target Organ Toxicity Category 3, H335 May cause respiratory irritation

Training requirements for workers
None