ABSELION™
PRECISION MADE PRACTICAL

SAFETY DATA SHEET

DETECTION DILUTION BUFFER | HIS TAG QUANTIFICATION

A1-8037

VERSION 1.1
REVISION DATE: 24 Apr. 2026
SUPERSEDES DATE: 31 Oct. 2025

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ACCORDING TO REGULATION (EC) NO. 1907/2006 (REACH)

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

1.1 PRODUCT IDENTIFIER

Product Name	**Detection Dilution Buffer|His Tag Quantification**
Product Code	A1-8037
CAS Number	Not Available
EC Number	Not Available

1.2 RELEVANT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND USES ADVISED AGAINST

For research use only. Contains a proprietary HRP-stabilizing aqueous buffer with trace levels of isothiazolone preservatives.

1.3 DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

Company Name	**HexagonFab Ltd. (trading as Abselion™)**
Address	Unit 1, Cambridge House, Oakington Road, Cambridge, UK, CB3 0QH
Telephone	UK: +44 1223 981475 (9:00 to 17:00 Mon-Fri) US: +1 617 865 6252 (9:00–17:00 Mon–Fri)
Email	support@abselion.com

1.4 EMERGENCY TELEPHONE NUMBER

During normal office hours:

UK: +44 1223 981475 (9:00–17:00 Mon–Fri)

US: +1 617 865 6252 (9:00–17:00 Mon–Fri)

In the event of medical emergency, call for an ambulance or emergency medical assistance immediately.

SECTION 2: Hazards identification

2.1 CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

Classification according to Regulation (EC) No 1272/2008 (CLP)

Skin Sens. 1 – H317 May cause an allergic skin reaction.

Classification according to Directive 67/548/EEC or 1999/45/EC as amended.

Classified as sensitising (R43 – May cause sensitisation by skin contact).

2.2 LABEL ELEMENTS

Labelling according to Regulation (EC) No 1272/2008 (CLP)

This substance or mixture is classified and labelled in accordance with EC Regulation No 1272/2008 due to the presence of a sensitising component (Skin Sens. 1 – H317).

Pictogram:

Signal Word:

Warning

Hazard Statements:

H317 – May cause an allergic skin reaction.

Precautionary Statements:

P261 – Avoid breathing mist, vapours or spray.

P272 – Contaminated work clothing must not be allowed out of the workplace.

P280 – Wear protective gloves.

P302 + P352 – IF ON SKIN: Wash with plenty of soap and water.

P333 + P313 – If skin irritation or rash occurs: Get medical advice / attention.

P363 – Wash contaminated clothing before reuse.

P501 – Dispose of contents / container in accordance with local regulations.

2.3 OTHER HAZARDS

Contains trace levels of isothiazolone preservatives (≤ 0.02 %), which may cause sensitisation in susceptible individuals. Does not meet the criteria for PBT or vPvB classification.

SECTION 3: Composition/information on ingredients

3.2 MIXTURES

Component	CAS-No.	EINECS -No.	Weight percent	REACH reg. no.	Classification (EC No 1272/2008)
3(2H)-Isothiazolone, 2-methyl-	2682-20-4	-	≤ 0.013 %	-	Skin Sens. 1 – H317
5-Chloro-2-methyl-3(2H)-isothiazolone mixture with 2-methyl-3(2H)-isothiazolone	55965-84-9	-	0.0024 %	-	Skin Sens. 1 – H317

Description of mixture:

A proprietary aqueous stabilizing buffer containing trace amounts of isothiazolone preservatives to maintain HRP-conjugate stability. All other components are non-hazardous under Regulation (EC) No 1272/2008.

3.1 DESCRIPTION OF FIRST AID MEASURES

General Information

Show this Safety Data Sheet to the doctor in attendance. Provide symptomatic treatment.

Following skin contact

Wash affected area with plenty of soap and water. May cause an allergic skin reaction. Remove contaminated clothing and launder before reuse. If skin irritation or rash occurs, seek medical advice/attention.

Following eye contact

Immediately rinse eyes with plenty of water, occasionally lifting upper and lower eyelids. Remove contact lenses if present and easy to do so. Continue rinsing for at least 15 minutes. If eye irritation develops or persists, seek medical advice/attention.

Following ingestion

If swallowed, do not induce vomiting unless instructed by a physician or poison control centre. Rinse mouth with water. Never give anything by mouth to an unconscious person. If symptoms develop or persist, seek medical advice/attention.

Following inhalation

If inhaled, remove person to fresh air and keep comfortable for breathing. If respiratory symptoms develop or persist, seek medical advice/attention.

3.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

Dermal exposure may cause an allergic skin reaction. Symptoms can include irritation, redness, pain, rash, inflammation, itching, burning or dermatitis. Effects depend on dose and duration of contact.

3.3 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

Treat symptomatically. No specific antidote is known.

SECTION 4: Firefighting measures.

4.1 EXTINGUISHING MEDIA

Suitable extinguishing media

Water mist / fog, carbon dioxide, dry chemical or alcohol-resistant foam.

Unsuitable extinguishing media

Do not use water jet.

4.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

Product is or contains a skin sensitiser. May release irritant fumes under fire conditions. Avoid breathing vapours or combustion products.

4.3 ADVICE FOR FIRE FIGHTERS

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA). Avoid contact with skin, eyes and clothing. Use water spray to cool containers exposed to fire. Prevent run-off from entering drains, sewers or watercourses.

SECTION 5: Accidental release measures

5.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURE.

Evacuate unnecessary personnel and ensure adequate ventilation. Extinguish all sources of ignition. Wear appropriate personal protective equipment. Avoid contact with skin, eyes and clothing. Avoid breathing mist, vapour or spray. Wash thoroughly after handling.

5.2 ENVIRONMENTAL PRECAUTIONS

Prevent further leakage or spillage if safe to do so. Prevent entry into drains, sewers and waterways. Discharge into the environment must be avoided.

5.3 METHODS AND MATERIALS FOR CLEANING UP

Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Stop leak if it can be done without risk. Absorb spillage with inert material (e.g. dry earth, sand or other non-combustible absorbent) and place in suitable container for disposal in accordance with Section 13.

5.4 REFERENCE TO OTHER SECTIONS

See Section 7 for safe handling.

See Section 8 for information on exposure controls/personal protection.

See Section 13 for disposal information.

SECTION 6: Handling and storage

6.1 PRECAUTIONS FOR SAFE HANDLING

Use only with adequate ventilation. Avoid breathing mist, vapour or spray. Avoid contact with skin, eyes and clothing. Wear suitable protective gloves and laboratory clothing (see Section 8). Do not eat, drink, smoke or apply personal products while handling this material. Wash hands and any contaminated skin thoroughly after handling. Keep away from incompatible materials (see Section 10). Keep container tightly closed when not in use.

6.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

Storage conditions:

Store in a cool, dry and well-ventilated area, protected from direct sunlight. Keep container tightly sealed and upright. Protect from freezing and physical damage. Keep away from heat, open flames and other ignition sources. Store separately from food and beverages. No specific incompatibilities are known under recommended conditions.

6.3 SPECIFI END USE(S)

The identified uses for this product are detailed in Section 1.2.

SECTION 7: Exposure controls/personal protection

7.1 CONTROL PARAMETERS

No occupational exposure limits are available for the components of this mixture. No biological exposure limits are established.

7.2 EXPOSURE CONTROLS

ENGINEERING MEASURES

Normally not required under recommended use conditions. If engineering controls are insufficient, use a respirator approved to appropriate standards (EN 140 / EN 143 or equivalent).

PERSONAL PROTECTIVE EQUIPMENT

Respiratory protection:

Provide adequate ventilation. Avoid inhalation of vapours and spray/mists. Observe any occupational exposure limits for the product or ingredients.

Protection of hands:

Wear chemical-resistant gloves conforming to EN 374. Inspect gloves before use and replace if damaged or contaminated.

Eye protection:

Wear safety glasses or chemical splash goggles compliant with EN 166.

Skin and Body protection:

Wear protective laboratory clothing or apron to prevent skin contact. Remove contaminated clothing and wash before reuse.

General protective and hygienic measures:

Do not eat, drink, or smoke when handling this product. Wash hands thoroughly after use and before breaks. Ensure good laboratory hygiene practices at all times.

SECTION 8: Physical and chemical properties

8.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Clear to amber liquid
Physical States	Liquid
Odour	Mild
Odour Threshold	No data available
pH	Neutral
Melting point/freezing point	No data available
Initial boiling point /boiling range	No data available
Flash point	No data available
Evaporation rate	No data available
Flammability (solid, gas)	Not applicable
Upper/lower flammability or explosion limits	No data available
Vapour pressure	No data available
Vapour density	No data available
Relative density	No data available
Solubility(ies)	Soluble in water
Partition coefficient	No data available
Auto ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No data available
Explosive properties	No unusual fire or explosion hazards noted
Oxidizing properties	No data available

8.2 OTHER INFORMATION

No further relevant information available.

SECTION 9: Stability and reactivity

9.1 REACTIVITY

Not reactive under normal conditions of handling and storage.

9.2 CHEMICAL STABILITY

Stable under recommended use and storage conditions.

9.3 POSSIBILITY OF HAZARDOUS REACTIONS

Hazardous reactions are not expected to occur under normal conditions of use or storage.

9.4 CONDITIONS TO AVOID

Avoid excessive heat, open flames, sparks, and other sources of ignition. Prevent freezing and direct sunlight.

9.5 INCOMPATIBLE MATERIALS

None known under normal conditions of storage and handling.

9.6 HAZARDOUS DECOMPOSITION PRODUCTS

No hazardous decomposition products are expected under normal conditions of use. Thermal decomposition may produce carbon oxides or nitrogen oxides.

SECTION 10: TOXICOLOGICAL INFORMATION

10.1 INFORMATION ON TOXICOLOGICAL EFFECTS

Acute Toxicity

Based on available data, the mixture is not classified as acutely toxic. No acute toxicity data are available for the formulation as a whole.

Component	Exposure Route	Result
3(2H)-Isothiazolone, 2-methyl-	Oral (rat)	LD_{50}: 120 mg/kg
	Inhalation (rat, aerosol, 4 h)	LC_{50}: 0.11 mg/L
	Dermal (rat)	LD_{50}: 242 mg/kg
5-Chloro-2-methyl-3(2H)-isothiazolone mixture with 2-methyl-3(2H)-isothiazolone	Oral (rat)	LD_{50}: 66 mg/kg
	Inhalation (rat, aerosol, 4 h)	LC_{50}: 0.33 mg/L
	Dermal (rabbit)	LD_{50}: 87 mg/kg

Skin corrosion/irritation

Based on available data, the mixture does not meet the criteria for classification. Individual components may cause irritation or burns at higher concentrations.

Serious eye damage/irritation

Based on available data, the mixture does not meet the criteria for classification. Individual components may cause serious eye damage.

Respiratory or skin sensitisation

May cause an allergic skin reaction (contains isothiazolone preservatives).

Germ cell mutagenicity

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

Carcinogenicity

Based on available data, the classification criteria are not met. No components are listed by IARC, NTP or OSHA as carcinogenic.

Reproductive toxicity

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

STOT-single exposure

No data available.

STOT-repeated exposure

No data available.

Aspiration hazard

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

Information on likely routes of exposure

May cause sensitisation by skin contact. No adverse effects expected through inhalation, ingestion or eye contact under normal use conditions

Symptoms related to the physical, chemical and toxicological characteristics

Skin contact may cause redness, itching, rash or irritation.

Other information

No additional relevant data available.

SECTION 11: Ecological information

11.1 TOXICITY:

No data available for the mixture as a whole.
Component information indicates potential aquatic toxicity at high concentrations:

Component	Test Species / Endpoint	Result
3(2H)-Isothiazolone, 2-methyl-	Fish (Oncorhynchus mykiss) LC_{50} (96 h)	4.77 mg/L
	Daphnia magna LC_{50} (48 h)	0.934 mg/L
	Algae EC_{50} (96 h, growth rate)	> 0.072 mg/L
5-Chloro-2-methyl-3(2H)-isothiazolone mixture with 2-methyl-3(2H)-isothiazolone	Fish (Oncorhynchus mykiss) LC_{50} (96 h)	0.19 mg/L
	Daphnia magna EC_{50} (48 h)	0.16 mg/L
	Algae EC_{50} (72 h, growth rate)	0.0199 mg/L

11.2 PERSISTENCE AND DEGRADABILITY:

3(2H)-Isothiazolone, 2-methyl-: Not readily biodegradable (54.1% degradation in 29 days). 5-Chloro-2-methyl-3(2H)-isothiazolone mixture with 2-methyl-3(2H)-isothiazolone: Readily biodegradable but fails 10-day window (62% degradation in 29 days).

11.3 BIO-ACCUMULATIVE POTENTIAL:

Not expected to bioaccumulate.
(3(2H)-Isothiazolone, 2-methyl-: log Pow −0.486; 5-chloro-2-methyl-isothiazolone: BCF 41).

11.4 MOBILITY IN SOIL:

The components are highly mobile in soil and are not expected to adsorb strongly to sediment (Koc 6–10).

11.5 RESULTS OF PBT AND VPVB ASSESSMENT:

This mixture does not contain substances assessed to be PBT or vPvB.

11.6 OTHER ADVERSE EFFECTS:

No data available.

SECTION 12: Disposal considerations

12.1 WASTE TREATMENT METHODS

General information

When handling waste, apply the same protective measures described in this Safety Data Sheet.

Disposal methods

Dispose of contents and container in accordance with local, regional, national, and international regulations. Collect and place in suitable, labelled containers for chemical waste disposal. Do not discharge into drains, sewers, or the environment.

Disposal methods

Empty containers or packaging may contain product residues. Dispose of packaging in accordance with local waste disposal authority requirements.

SECTION 13: Transport information

General

The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

Road transport notes

Not classified.

Rail transport notes

Not classified.

Sea transport notes

Not classified.

Air transport notes

Not classified.

13.1 UN NUMBER

Not applicable.

13.2 UN PROPER SHIPPING NAME

Not applicable.

13.3 TRANSPORT HAZARD CLASS(ES)

Not applicable.

13.4 PACKING GROUP

Not applicable.

13.5 ENVIRONMENTAL HAZARDS

Environmentally hazardous substance/marine pollutant

No.

13.6 SPECIAL PRECAUTIONS FOR USER

Not known.

13.7 TRANSPORT IN BULK ACCORDING TO ANNEX II OF MARPOL AND THE IBC CODE

Not applicable.

SECTION 14: Regulatory information

14.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS /LEGISLATION SPECIFIC FOR THE SUBSTANCE OR MIXTURE

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).

Chemical Safety Assessment:

A chemical safety assessment has not been carried out for this mixture.

SECTION 15: Other information

General information

Only trained personnel should use this material.

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.

Abbreviations and acronyms

RID: Rėglement international concernant le transport des marchandises par chemin de fer (Regulations Concerning the International transport of Dangerous Goods by Rail)
ICAO: International Civil Aviation Organisation
ADR: Accord europėen sur le transport 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
CAS: Chemical Abstracts Service (division of the American Chemical Society)
VbF: Verordnung ũber brennbare Flũssigkeiten, Österreich (Ordinance on the storage of combustible liquids, Austria)
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative