



SAFETY DATA SHEET

SUBSTRATE

A1-8026

VERSION 2.2
REVISION DATE: 24 Apr. 2026
SUPERSEDES DATE: 16 Oct. 2025

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

1.1 PRODUCT IDENTIFIER

Product Name	Substrate
Product Code	A1-8026
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.

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)

Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008.

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

Not a hazardous substance or mixture according to EC Directive 67/548/EEC or 1999/45/EC.

2.2 LABEL ELEMENTS

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

This substance or mixture does not need to be labelled in accordance with EC directives or respective national laws.

Pictogram:

None

Signal Word:

None

Hazard Statements:

The substance or mixture does not meet the criteria for classification.

Precautionary Statements:

None

2.3 OTHER HAZARDS

None known

SECTION 3: Composition/information on ingredients

3.2 MIXTURES

Hazardous components: None present at concentrations requiring classification under Regulation (EC) No 1272/2008 (CLP).

Additional information: Contains <0.1% 3,3',5,5'-Tetramethylbenzidine (CAS No. 54827-17-7). 3,3',5,5'-Tetramethylbenzidine is present below classification thresholds and is not expected to pose a hazard under normal conditions of use.

SECTION 4: First aid measures

4.1 DESCRIPTION OF FIRST AID MEASURES

General Information

Move out of exposure area. Consult doctor if discomfort occurs. Show MSDS to responders.

Following skin contact

Remove contaminated clothing and shoes. Wash with soap and plenty of water. Seek medical attention if irritation develops.

Following eye contact

Rinse eyes thoroughly with water for at least 15 minutes. Consult a doctor. Seek medical attention if irritation persists.

Following ingestion

Do not induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water if conscious. Consult poison centre or medical personnel for actions to take.

Following inhalation

Move into fresh air. Seek medical attention for any breathing difficulty.

4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

All known important symptoms are described in Section 2 and/or Section 11. No other important symptoms to report.

4.3 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

No special treatment indicated. Provide treatment in accordance with exhibited symptoms.

SECTION 5: Firefighting measures.

5.1 EXTINGUISHING MEDIA

Suitable extinguishing media

Water Spray, dry chemical, foam, carbon dioxide.

5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

No special hazards are known to exist regarding combustion of this product.

5.3 ADVICE FOR FIRE FIGHTERS

No specific firefighting precautions known.

SECTION 6: Accidental release measures

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURE.

Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate.

6.2 ENVIRONMENTAL PRECAUTIONS

Avoid the spillage or runoff entering drains, sewers or watercourses.

6.3 METHODS AND MATERIALS FOR CLEANING UP

Collect liquid as chemical waste or absorb using an inert absorbent material such as towels, vermiculite, dry earth, sand or other suitable material, and dispose of as chemical waste.

6.4 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 7: Handling and storage

7.1 PRECAUTIONS FOR SAFE HANDLING

Avoid inhalation of vapours/spray and contact with skin and eyes. Good personal hygiene procedures should be implemented. Wash hands and any other contaminated areas of the body with soap and water before leaving the work site.

7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

Storage conditions:

Store in an upright, closed container in an arid, ventilated environment in the dark at 2-8 ° C.

7.3 SPECIFIC END USE(S)

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

SECTION 8: Exposure controls/personal protection

8.1 CONTROL PARAMETERS

No data available.

8.2 EXPOSURE CONTROLS

ENGINEERING MEASURES

Ensure adequate ventilation, especially in confined areas. Use in areas near a properly functional safety shower and eyewash station.

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:

No special protection required under normal use conditions. Wear gloves if prolonged or repeated contact is expected, or if required by good laboratory or workplace hygiene practices.

Eye protection:

Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. The following protection should be worn: Chemical splash goggles or face shield.

Skin and Body protection:

Wear appropriate clothing to prevent any possibility of skin contact. Wear apron or protective clothing in case of contact.

General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Wash hands before breaks and at the end of work. Do not eat or drink whilst working.

SECTION 9: Physical and chemical properties

9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Colourless to trace blue
Physical States	Liquid
Odour	Minimal odour characteristics
Odour Threshold	No data available
pH	pH 3.1 ± 0.5
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)	No data available
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 data available
Oxidizing properties	TMB is readily oxidized by oxidizing agents such as common metal cations and trace metals, forming blue or yellow coloured products.

9.2 OTHER INFORMATION

No further relevant information available.

SECTION 10: Stability and reactivity

10.1 REACTIVITY

No data available.

10.2 CHEMICAL STABILITY

Stable under recommended use and storage conditions.

10.3 POSSIBILITY OF HAZARDOUS REACTIONS

No known hazardous reactions. Will not polymerise.

10.4 CONDITIONS TO AVOID

May cause sensitisation by skin contact.

10.5 INCOMPATIBLE MATERIALS

Strong oxidizing agents, strong acids.

10.6 HAZARDOUS DECOMPOSITION PRODUCTS

Does not decompose when used and stored as recommended.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 INFORMATION ON TOXICOLOGICAL EFFECTS

Acute Toxicity

Not classified as acutely toxic by oral, dermal, or inhalation routes.

Skin corrosion/irritation

No data available.

Serious eye damage/irritation

No data available

Respiratory or skin sensitisation

May cause sensitisation by skin contact.

Germ cell mutagenicity

No data available

Carcinogenicity

No data available

Reproductive toxicity

No data available.

STOT-single exposure

No data available.

STOT-repeated exposure

No data available.

Aspiration hazard

No data available

SECTION 12: Ecological information

12.1 TOXICITY:

No data available.

12.2 PERSISTENCE AND DEGRADABILITY:

No data available.

12.3 BIO-ACCUMULATIVE POTENTIAL:

No data available.

12.4 MOBILITY IN SOIL:

The product is soluble in water.

12.5 RESULTS OF PBT AND VPVB ASSESSMENT:

No data available.

12.6 OTHER ADVERSE EFFECTS:

No data available.

SECTION 13: Disposal considerations

13.1 WASTE TREATMENT METHODS

General information

When handling waste, the safety precautions applying to handling of the product should be considered.

Disposal methods

Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

SECTION 14: 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.

14.1 UN NUMBER

Not applicable.

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

Environmentally hazardous substance/marine pollutant

No.

14.6 SPECIAL PRECAUTIONS FOR USER

Not known.

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

Not applicable.

SECTION 15: Regulatory information

15.1 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).

15.2 CHEMICAL SAFETY ASSESSMENT:

No chemical safety assessment has been carried out.

SECTION 16: 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:** Règlement 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 européen 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 über brennbare Flüssigkeiten, Österreich (Ordinance on the storage of combustible liquids, Austria)
- PBT:** Persistent, Bioaccumulative and Toxic
- vPvB:** very Persistent and very Bioaccumulative