

TECHNICAL DATA SHEET

LS1 INSTANT ADHESIVE

LIQUID PROPERTIES

Ester Base.....ethyl-2-cyanoacrylate
Appearance.....Clear, colourless
Flashpoint.....>81°C
Density.....1,05
Shelf Life.....12 months, unopened
Viscosity (Brookfield)
@ 25°C.....90 - 120cP
(Spindle 1, 20rpm)

POLYMER PROPERTIES

Appearance.....Clear, colourless
Softening Point.....c. 130°C
Refractive Index, n_D^{20} 1,45
Full Cure Time.....24 hours
Solubility.....DMF, acetonitrile, acetone

STORAGE

BONDLOC cyanoacrylates should ideally be stored in original sealed containers until used. Containers should be stored between 10°C and 22°C; avoid exposure to strong light and heat sources. Refrigeration can prolong shelf life.

CURED PERFORMANCE

Cure Speed

Balsa / Balsa.....5 seconds
Oak / Oak.....90-180 seconds
Nitrile / Nitrile.....<5 seconds
Neoprene / Neoprene.....<5 seconds
EPDM / EPDM.....<5 seconds
Steel / Steel.....10-20 seconds
PVC / PVC.....3-10 seconds
Polycarbonate / Polycarbonate.....10-40 seconds

Shear Strength

Grit Blasted Steel.....>15 N/mm²
Etched Aluminium.....>11 N/mm²
Nitrile Rubber.....>10 N/mm²
Polycarbonate.....>12 N/mm²

Tensile Strength

Grit Blasted Steel.....>18 N/mm²
Nitrile Rubber.....>5 N/mm²
Neoprene Rubber.....>5 N/mm²
EPDM Rubber.....>2,5 N/mm²

SAFETY DATA SHEET

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Revision No. 1
Revision Date

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product name LS1 INSTANT ADHESIVE

Company Beal UK Ltd
Sterling Works
Texas Street
Tingley (A650)
Leeds
LS27 0HG

2. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous components	Conc.	CAS	EINECS	Risks
Ethyl-2-cyanoacrylate	95 - 99%	7085-85-0	230-391-5	Xi;R36/37/38
1,4-Dihydroxybenzene	0 - 0.5%	123-31-9	204-617-8	Xn;R22 Xn;R40 Xi;R41 Xi;R43 N;R50 Xn;R68

3. HAZARDS IDENTIFICATION

Most important hazards Irritating to eyes, respiratory system and skin.

4. FIRST AID MEASURES

Skin contact	Irritating to skin. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. In the case of skin irritation or allergic reactions see a physician.
Eye contact	Irritating to eyes. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If eye irritation persists, consult a specialist.
Inhalation	Irritating to respiratory system. Inhalation of vapours is irritating to the respiratory system, may cause throat pain and cough. Move to fresh air. Consult a physician after significant exposure.
Ingestion	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea. Consult a physician if necessary. Do NOT induce vomiting.

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5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	Carbon dioxide (CO ₂).
Specific hazards	Burning produces obnoxious and toxic fumes.
Special protective equipment for fire-fighters	Wear self contained breathing apparatus for fire fighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions	Ensure adequate ventilation. Use personal protective equipment.
Environmental precautions	Do not let product enter drains. Prevent further leakage or spillage.
Methods for cleaning up	Soak up with inert absorbent material. Sweep up and shovel into suitable containers for disposal. After cleaning, flush away traces with water.

7. HANDLING AND STORAGE

Handling	Avoid contact with skin and eyes. Ensure adequate ventilation or exhaust ventilation in the working area. Handle in accordance with good industrial hygiene and safety practice.
Storage	Keep containers tightly closed in a dry, cool and well-ventilated place. Keep in properly labelled containers.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure limit(s)		
Ethyl cyanoacrylate	WEL 8-hr limit ppm: - WEL 15 min limit ppm: 0.3	WEL 8-hr limit mg/m ³ : - WEL 15 min limit mg/m ³ : 1.5
Hydroquinone	WEL 8-hr limit ppm: - WEL 15 min limit ppm: -	WEL 8-hr limit mg/m ³ : 0.5 WEL 15 min limit mg/m ³ : -
Engineering measures	Ensure adequate ventilation, especially in confined areas.	
Respiratory protection	In case of insufficient ventilation wear suitable respiratory equipment.	
Hand protection	PVC or other plastic material gloves.	
Eye protection	Goggles.	
Skin and body protection	Wear chemical protective clothing.	

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9. PHYSICAL AND CHEMICAL PROPERTIES

Description	Liquid.
Colour	Clear.
Odour	Irritating.
Boiling point/range	100°C
Flash point	81°C
Vapour pressure	@25c:<0.5mm hg
Water solubility	immiscible.

10. STABILITY AND REACTIVITY

Stability	Stable under normal conditions.
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11. TOXICOLOGICAL INFORMATION

Acute toxicity	Estimated Oral LD50: >5000mg kg . Estimated Dermal LD50: >2000mg kg .
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12. ECOLOGICAL INFORMATION

Ecotoxicity effects	No data is available on the product itself.
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13. DISPOSAL CONSIDERATIONS

General Information	Dispose of in accordance with local regulations.
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14. TRANSPORT INFORMATION

Further Information	Not classified as dangerous in the meaning of transport regulations.
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15. REGULATORY INFORMATION

Labelling	The product is classified and labelled in accordance with Directive 1999/45/EC. The product is classified in accordance with Annex VI to Directive 67/548/EEC.
Symbol(s)	Xi - Irritant 
R-phrases(s)	R36/37/38 - Irritating to eyes, respiratory system and skin.

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16. OTHER INFORMATION

Text of R phrases
mentioned in Section 2

R22 - Harmful if swallowed.
R36/37/38 - Irritating to eyes, respiratory system and skin.
R40 - Limited evidence of a carcinogenic effect.
R41 - Risk of serious damage to eyes.
R43 - May cause sensitization by skin contact.
R50 - Very toxic to aquatic organisms.
R68 - Possible risk of irreversible effects.

Further information

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The 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, unless specified in the text.