MATERIAL SAFETY DATA SHEET

This safety data sheet has been prepared in accordance with the requirements of EC Directive 91/155/EEG (and other related directives), and provides information relating to the safe handling and use of the product.

1 IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY

Trade name:	Smart Bond LC
Intended use:	Cyanoacrylate
Company name:	Gestenco International AB
Address:	P.O. Box 24067 SE-400 22 Gothenburg Sweden
Emergency Phone Number:	+46 31 81 00 35
Fax Number:	+46 31 81 46 55
E-mail:	info@gestenco.com

2 HAZARDS IDENTIFICATION

R36/37/38 Irritating to eyes, respiratory system and skin.

3 COMPOSITION / INFORMATION ON INGREDIENTS

General chemical description: Cyanoacrylate adhesive

Declaration of ingredients according to EC/1907/2006:

Hazardous components	EINECS ELINCS	%	R-Phrases	S-Phrases	Classification
Ethyl 2-cyanoacrylate CAS no. 7085-85-0	230-391-5	>80-<100	R36/37/38	S(2)-23-24/25-26	Xi
Phosphine oxide CAS no. 162881-26-7	423-340-5	>0,1-Ò0,5	R43-53		Xi

4 FIRST AID MEASURES

Inhalation

Move to fresh air, consult doctor if complaint persists.

Skin contact

Do not pull bonded skin apart. It may be gently peeled apart using a blunt object such as a spoon, preferably after soaking in warm soapy water. Cyanoacrylates give off heat on solidification. In rare cases a large drop will generate enough heat to cause a burn. Burns should be treated normally after the adhesive has been removed from the skin. If lips are accidentally stuck together, apply warm water to the lips and encourage maximum wetting and pressure from saliva inside the mouth. Peel or roll lips apart. Do not try to pull the lips apart with direct opposing action.

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4 FIRST AID MEASURES (continued)

Eye contact

If the eye is bonded closed, release eyelashes with warm water by covering with wet pad. Cyanoacrylate will bond to eye protein and will cause periods of weeping which will help to debond the adhesive. Keep eye covered until debonding is complete, usually within 1-3 days. Do not force eye open. Medical advice should be sought in case solid particles of cyanoacrylate trapped behind the eyelid cause any abrasive damage.

Ingestion

Ensure that breathing passages are not obstructed. The product will polymerise immediately in the mouth making it almost impossible to swallow.
Saliva will slowly separate the solidified product from the mouth (several hours).

5 FIRE FIGHTING MEASURES

Suitable extinguishing media:

Foam, extinguishing powder, carbon dioxide, fine water spray.

Special protection equipment for firefighters:

Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA).

Hazardous combustion products:

Oxides of carbon, oxides of nitrogen, irritating organic vapors.

6 ACCIDENTAL RELEASE MEASURES

Personal precautions:

Ensure adequate ventilation.

Environmental precautions:

Do not let product enter drains.

Clean-up methods:

Do not use cloths for mopping up. Flood with water to complete polymerization and scrape off the floor. Cured material can be disposed of as non-hazardous waste.

7 HANDLING AND STORAGE

Handling

Ventilation (low level) is recommended when using large volumes.
Use of dispensing equipment is recommended to minimise the risk of skin or eye contact.

Storage

For optimum shelf life store in original containers under refrigerated conditions at 2°C to 8°C.

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8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational exposure limits

Ethyl Cyanoacrylate	0.3 ppm (1.5 mg/m³) Short Term Exposure Limit

Respiratory protection:

Ensure adequate ventilation.

Hand protection:

The use of chemical resistant gloves are recommended.
Polyethylene or polypropylene gloves are recommended when using large volumes.
Do not use PVC, rubber, cotton or nylon gloves.
Please note that in practice the working life of chemical resistant gloves may be considerably reduced as a result of many influencing factors (e.g. temperature).
Suitable risk assessment should be carried out by the end user. If sign of wear and tear are noticed then the gloves should be replaced.

Eye protection:

Wear protective glasses.

General protection and hygiene measures:

Good industrial hygiene practices should be observed.

9 PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Liquid
Colour:	Pale, green
Odour:	Sharp, Characteristic
Boiling Point (°C):	>149ºC
Flash Point :	80 ï 93.3ºC
Density (20ºC):	1.1 g/cm³
Solubility in Water:	Polymerises in presence of water.
Vapour Pressure:	<0.3 mbar
VOC- containts	>3%

10 STABILITY AND REACTIVITY

Conditions to avoid:

Stable under normal conditions of storage and use.

Materials to avoid:

Rapid exothermic polymerization will occur in the presence of water, amines, alkalis and alcohols.

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11 TOXICOLOGICAL INFORMATION

Inhalative toxicity

Irritating to respiratory system. In dry atmosphere with < 50% humidity, vapours may irritate the eyes and respiratory system. Prolonged exposure to high concentrations of vapours may lead to chronic effects in sensitive individuals.

Skin irritation

Irritating to the skin. Bonds skin in seconds. Considered to be of low toxicity: acute dermal LD50 (rabbit) > 2000mg/kg. Due to polymerisation at the skin surface allergic reaction is unlikely to occur.

Eye irritation

Irritating to the eyes. Liquid product will bond eyelids. In a dry atmosphere (RH < 50%) vapours may cause irritation and lachrymatory effect.

Oral toxicity

Cyanoacrylates are considered to have relatively low toxicity. Acute oral LD50 is > 5000mg/kg (rat). It is almost impossible to swallow as it rapidly polymerises in the mouth.

12 ECOLOGICAL INFORMATION

Mobility:

Cured adhesives are immobile.

General ecological information:

Biological and Chemical Oxygen Demands (BOD and COD) are insignificant.
Do not empty into drains/surface water/ground water.

13 DISPOSAL CONSIDERATIONS

Product disposal:

Cured adhesive: dispose of as water insoluble non-toxic solid chemical in authorised landfill or incinerate under controlled conditions.
Dispose of in accordance with local and national regulations.

Waste code (EWC):

08 04 09 waste adhesives and sealants containing organic solvents and other dangerous substances.

Disposal of uncleaned packages:

After use, tubes, cartons and bottles containing residual product should be disposed of as chemically contaminated waste in an autherised legal land fill site or incinerated.
Disposal must be made according to official regulations.

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14 TRANSPORT INFORMATION

Road transport ADR:	Not dangerous goods.
Railroad transport RID:	Not dangerous goods.
Inland water transport AND:	Not dangerous goods.
Marine transport IMDG:	Not dangerous goods.
Air transport IATA:	
Class:	9
Packaging group:	
Packaging instructions (passenger)	906
Packaging instructions (cargo)	906
UN no.:	3334
Label:	9
Proper shipping name:	Aviation regulated liquid n.o.s. (Cyanoacrylate ester)

15 REGULATORY INFORMATION

Indication of danger: Xi ï Irritant

Risk phrases:

R36/37/38. Irritating to eyes, respiratory system and skin.

Safety phrases:

S23. Do not breathe vapour.
S24/25. Avoid contact with skin and eyes..
S26. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Additional labeling:

Cyanoacrylate. Danger. Bonds skin and eyes in seconds. Keep out of the reach of children.

Contains Bis (2,4,6-Trimethylbenzoyl) phenylphosphine oxide. May produce an allergic reaction.

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16 OTHER INFORMATION

MSDS first issued	June 3, 2004
MSDS data revised	October 27, 2008
MSDS data revised	April 30, 2010

The labelling of the product is indicated in Section 15. The full text of the R-phrases indicated by codes in the safety data sheet are as follows:

R36/37/38 Irritating to eyes, respiratory system and skin.
R43 May cause sensitization by skin contact.
R53 May cause long-term adverse effetct in the aquatic environment.

Further information:

This information is based on our current level of knowledge and relates to the product in the state in which it is delivered. It is intended to describe our products from the point of view of safety requirements and is not intended to guarantee any particular properties.

This safety data sheet was prepared in accordance with Council Directive 67/548/EEC and it´s subsequent amendments, and Commission Directive 1999/45/EC.

Göran Steen, April 30, 2010