C-POX™ BONDER 101
MATERIAL SAFETY DATA SHEET

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MSDS Date: December 3, 2003

SECTION 1 – CHEMICAL PRODUCT IDENTIFICATION

Product Name: **C-pox™ Bonder 101** Item Number **CB101**
Product Type: Adhesive

SECTION 2 – COMPOSITION/INFORMATION ON INGREDIENTS*

*** The precise composition of this product is proprietary information. A more detailed disclosure will be provided by Gowest2 International to qualified Medical or Industrial Hygiene personnel as privileged information upon request in case of need for specific treatment.**

Ingredients:	CAS Number	Percent
Ethyl Cyanoacrylate :	Proprietary	87-92%
Poly (methyl methacrylate):	Proprietary	5-10%
PHTHALIC ANHYDRIDE*:*	Proprietary	0.1-1%
HYDROQUINONE:	Proprietary	0.1-0.5%

**This component is listed as a SARA Section 313 Toxic Chemical.

Ingredients which have exposure limits:

EXPOSURE LIMITS (TWA):	**ACGIH**	**OSHA**	**OTHER**
INGREDIENTS:	**(TLV)**	**(PEL)**	
ETHYL CYANOACRYLATE:	0.2 ppm TWA	None	None
PHTHALIC ANHYDRIDE:	1 ppm TWA	ppm TWA 6.1 mg/m3	None mg/m3
HYDROQUINONE:	2 mg/m3 TWA	2 mg/m3 TWA	2 mg/m3 TWA 4 mg/m3 STEL
EXPOSURE LIMITS (STEL):	**ACGIH**	**OSHA**	
INGREDIENTS:	**(TLV)**	**(PEL)**	

SECTION 3 – HAZARDS IDENTIFICATION

TOXICITY: Skin contact may cause burns. Bonds skin rapidly and strongly. Skin and eye irritant. Estimated oral LD50 more then 5000mg/kg. Estimated dermal LD50 than 2000mg/kg.
PRIMARY ROUTES OF ENTRY: None known
SIGNS AND SYMPTOMS OF EXPOSURE: Vapor is irritating to eyes and mucous membranes above TLV. Prolonged and repeated overexposure to vapors may produce symptoms of non-allergic asthma in sensitive individuals.
EXISTING CONDITIONS AGGRAVATED BY EXPOSURE: None Known

Ingredients:	Target Organ & Other Health Effects	Literature Referenced /Carcinogen **NTP**	**IARC**	**OSHA**	
Ethyl Cyanoacrylate:	**ALG IRR RES**		No	No	No
Poly (methyl methacrylate):	**IRR**		No	N/A	No
HYDROQUINONE:	**BLO BNM CNS EYE IMM IRR MUT SKI AC3 THY LIV**		No	N/A	No

Abbreviations: **N/A -**Not applicable **BLO** - Blood **CNS** - Central Nervous System **IMM** - Immune System **MUT** - Mutagen **SKI** - Skin**ALG** - Allergen **BNM** - Bone Marrow **EYE** - Eye **IRR** - Irritant **RES** -Respiratory **LIV**-Liver **THY**-Thyroi**d C3**-ACGIH animal carcinogen

SECTION 4 - FIRST AID MEASURES

INGESTION: Ingestion is not likely. See supplemental page for emergency procedures.
INHALATION: Remove to fresh air. If symptoms persist, obtain medical attention
SKIN CONTACT: Soak in warm water. See supplemental page for emergency procedures.
EYE CONTACT: Flush with water. See supplemental page for emergency procedures.

(SUPPLEMENTAL PAGE IN SECTION 17)

SECTION 5 - FIRE FIGHTING MEASURES

FLASH POINT: 150^0 to 200^0F
METHOD: Tag Closed Cup
RECOMMENDED EXTINGUISHING AGENTS: Carbon dioxide, foam, dry chemical.
HAZARDOUS PRODUCTS FORMED BY FIRE OR THERMAL DECOMPOSITION: Irritating organic vapors.
UNUSUAL FIRE OR EXPLOSION HAZARDS None
EXPLOSIVE LIMITS: Phthalic Anhydride. 1.7% by volume in air - Lower ** 10.5% by volume in air-Upper

SECTION 6 – ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE OF SPILL OR LEAK: Flood with water to polymerize. Soak up with an inert absorbent.

SECTION 7 – HANDLING AND STORAGE

SAFE STORAGE: Store at or below 75^0F to maximize shelf life.
HANDLING: Avoid contact with skin and eyes. Avoid breathing vapors.

SECTION 8 – EXPOSURE CONTROLS, PERSONAL PROTECTION

EYES: Safety glasses or goggles.
SKIN: Nitrile or polyethylene gloves and aprons. Do not use cotton. See supplemental page for additional information.
VENTILATION: Positive down-draft exhaust ventilation should be provided to maintain vapor concentration below TLV.
RESPIRATORY: Not Available

******See Section 2 for Exposure Limits*****

SECTION 9 – PHYISCAL AND CHEMICAL PROPERTIES

APPEARANCE: Clear liquid
ODOR: Sharp, Irritating
BOILING POINT: More than 300^0F
pH: Does not apply
SOLUBILITY IN WATER: Polymerized by water
SPECEFIC GRAVITY: 1.1

VOLATILE ORGANIC COMPOUND:
(EPA METHOD 24): 8.5%; 974 grams per liter
VAPOR PRESSURE: Less then 0.2 mm at 80^0F
VAPOR DENSITY: Approximately 3
EVAPORATION RATE: Not Available (Ether = 1)

SECTION 10 – STABILITY AND REACTIVITY

STABILITY: Stable
HAZARDOUS POLYMERIZATION: Will not occur
INCOMPATIBILITY: Polymerized by contact with water, alcohol's, amines, alkalies
HAZARDOUS DECOMPOSITION PRODCUTS (non-thermal): None
CONDITIONS TO AVOID: Not Available

SECTION 11 – TOXICOLOGICAL PROPERTIES

Estimated oral LD50 more than 5000 mg/kg.
Estimated dermal LD50 more than 2000 mg/kg.

SECTION 12 – ECOLOGICAL INFORMATION

No data available.

SECTION 13 – DISPOSAL CONSIDERATIONS

RECOMMENDED METHODS OF DISPOSAL: Polymerize as above. Incinerate in accordance with EPA and local regulations.
EPA HAZARDOUS WASTE NUMBER: NH - Not a RCRA Hazardous Waste Material

SECTION 14 – SHIPPING INFORMATION

DOT (49 CFR 172)	GROUND
PROPER SHIPPING NAME:	Unrestricted (Not more than 450 liters); Combustible liquids, n.o.s. (Cyanoacrylate ester) - (More than 450 liters)
HAZARD CLASS OR DIVISION:	Unrestricted (Not more than 450 liters); Combustible liquid (More than 450 liters)
IDENTIFICATION NUMBER:	None (Not more than 450 liters); NA 1993 (More than 450 liters)
MARINE POLLUTANT:	None

IATA
PROPER SHIPPING NAME: Unrestricted (Not more than one pint); Aviation regulated liquid, n.o.s. (Cyanoacrylate Ester) (More than one pint)
CLASS OR DIVISION: Unrestricted (Not more than one pint); Class 9 (More than one pint)
UN or ID NUMBER: None (Not more than one pint); UN 3334 (More than one pint)

SECTION 15 – REGULATORY INFORMATION

CA Preposition 65: No California Proposition 65 chemicals are known to be present.

SECTION 16 – OTHER INFORMATION

	Estimated NFPA(R) code:	Estimated HMIS (R) code:
HEALTH HAZARD:	2	2
FIRE HAZARD:	2	2
REACTIVITY HAZARD:	1	1
SPECEFIC HAZARD:	No water	Personal Protection: See Section 8

NFPA is a registered trademark of the National Fire Protection Assn.
HMIS is a registered trademark of the National Paint and Coatings Assn.

SECTION 17- PREPARATION INFORMATION

Prepared by: Gowest2 International
Revised date: December 3, 2003

SUPPLEMENT

Information for first aid and casualty on treatment for adhesion of human skin to itself if caused by cyanoacrylate adhesives. Cyanoacrylate adhesive is a very fast setting and strong adhesive. It bonds human tissue including skin in seconds. Experience has shown that accidents due to cyanoacrylates are handled best by passive, nonsurgical first aid. Treatment of specific types of accidents are given below.

SKIN CONTACT
Remove excess adhesive. Soak in warm, soapy water. The adhesive will come loose from the skin in several hours. Cured adhesive does not present a health hazard even when bonded to the skin. Avoid contact with clothes, fabrics, rags, or tissue. Contact with these materials may cause polymerization. The polymerization of large amounts of adhesive will generate heat causing smoke, skin burns, and strong, irritating vapors. Wear nitrile or polyethylene gloves and apron when handling large amounts of adhesive.

SKIN ADHESION
First immerse the bonded surfaces in warm, soapy water. Peal or roll the surfaces open with the aid of a blunt edge, e.g. a spatula or a teaspoon handle; then remove adhesive from the skin with soap and water. Do not try to pull surfaces apart with a direct opposing action.

EYELID TO EYEBALL ADHESION
In the event that eyelids are stuck together or bonded to the eyeball, wash thoroughly with warm water and apply a gauze patch. The eye will open without further action, typically in 1-4 days. There will be no residual damage. Do not try to open the eyes by manipulation.

ADHESIVE ON THE EYEBALL
Cyanoacrylate introduced in to the eyes will attach itself to the eye protein and will disassociate from it over intermittent periods, generally covering several hours. This will cause periods of weeping until clearance is achieved. During the period of contamination, double vision may be experienced together with a lachrymatory effect, and it is important to understand the cause and realize that disassociation will normally occur within a matter of hours, even with gross contamination.

MOUTH
If lips are accidentally stuck together, apply lots of warm water to the lips and encourage maximum wetting and pressure from saliva inside the mouth. Peal or roll lips apart. Do not try to pull the lips with direct opposing action. It is almost impossible to swallow cyanoacrylate. The adhesive solidifies and adheres in the mouth. Saliva will lift the adhesive in one half to two days. In case a lump forms in the mouth, position the patient to prevent ingestion of the lump when it detaches.

BURNS
Cyanoacrylates give off heat on solidification. In rare cases a large drop will increase in temperature enough to cause a burn. Burns should be treated normally after the lump of cyanoacrylate is released from the tissue as described above.

SURGERY
It should never be necessary to use such a drastic method to separate accidentally bonded skin.