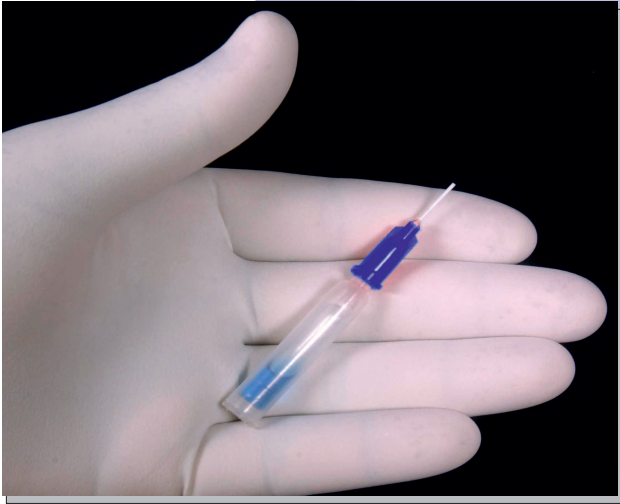


N-BUTYL-2-CYANOACRYLATE
XOIN[®]
TOPICAL SKIN ADHESIVE



Room Temperature Storage

High Purity & Product Stability

Great Cosmetic Outcomes

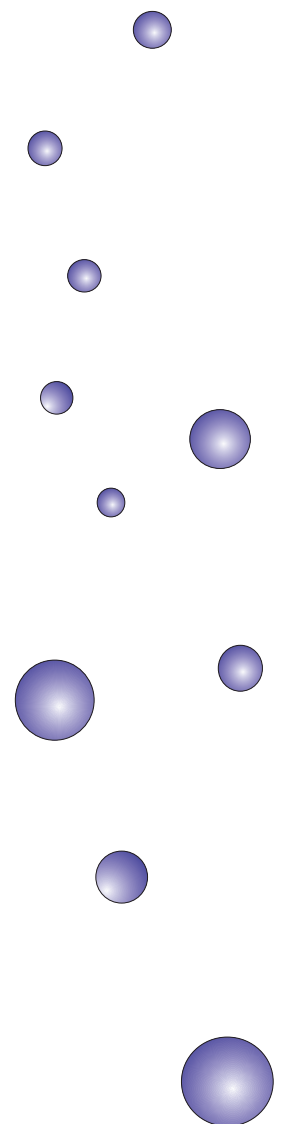
Easy Application

Soft Polymer Micro Tip Delivery

Versatile Indicative Uses

Minimal Post Surgical Infection

Patented Micro Delivery System



n-butyl-2-cyanoacrylate

Cyanoacrylate gets polymerized very quickly and becomes in-effective when it gets in contact even with trace moisture content generally present in the atmosphere.

This sensitivity of cyanoacrylate tissue adhesive towards atmospheric moisture has been a insurmountable problem for manufacturers as well as for the doctors.

The patented micro delivery system package of **XOIN**, solves the problems in handling of cyanoacrylate both in shipping and handling and as well as in the final usage.

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Advantages

Micro Delivery of cyanoacrylate at the wound site helps to just add the right amount to close the wound. Accidental excess application is kept to a minimum when using **XOIN** which in turn helps in quick healing and decrease in tissue damage due to heat of polymerization.

Micro Delivery system provides an option to apply tissue adhesive at hard to reach places as well as on very small incisions and cuts.

The crushable ampule system helps to keep the product from solidifying due to atmospheric moisture. This guarantees the product to remain in liquid form and hence effective and active at time of application.

A great convenience to doctors as they have a world class product in their hands.

Product is delivered via a soft polymer micro tip thus reducing accidental injuries that may happen while applying the product over the wound site.

Patented Micro Delivery System

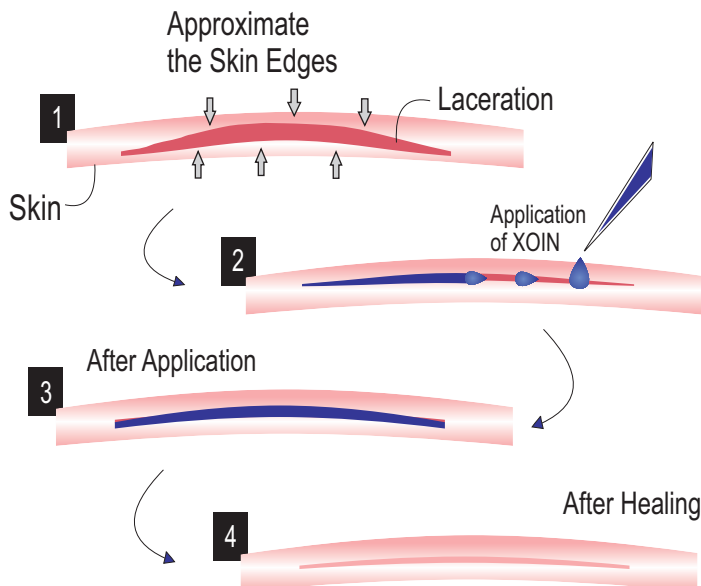
Applying cyanoacrylate at the site of wound has been a problem with product packaged in plastic ampule. The product is drawn using a syringe from the container and then the plunger is pushed to release drops of cyanoacrylate over the two edges of the skin.

XOIN has a patented micro delivery system which is built into the package itself.

When pressed on the plastic jacket firmly between two fingers, the glass ampule inside is crushed which releases butyl cyanoacrylate into the plastic container.

The plastic container contains a built-in filter to stop glass particle debris.

The product comes out through the needle as micro drops. The flow is easily controlled by applying required pressure on the plastic jacket between the two fingers.



Long Term Stability

Some products were known to get polymerized (and hence rendered ineffective), within couple of months of shelf life. It has been also observed some packages getting solidified within days of shipment to the distributors from the manufacturing site.

XOIN is stable with respect to temperature, dust and moisture. The active component, monomer form of n-butyl-2-cyanoacrylate, remains as a clear blue liquid even when left at room temperature.

The much needed stability is due to the filling of cyanoacrylate in a hermetically sealed crushable glass ampule. As the glass walls are impermeable to moisture the product remains in liquid form for a long time even at room temperature storage.

The surrounding sheath jacket made up of a polymer gives mechanical strength to the device and doubles as a product usage and handling system.



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Suggested Indications

Ophthalmic surgery	:	Corneal perforations
ENT surgery	:	Tympanic perforations
Dental surgery	:	Dental implants, Periodontal surgery, Gingivectomy, extracting sites.
General surgery	:	Laparotomy, Hernia, Appendicitis.
Plastic surgery	:	Cleft lip, Excision of scars, Skin graft
Gynaecology	:	Episiotomy, Cesarean section, Tubectomy
Gastroenterology	:	Varices, Wounds in Liver and Pancreas.
Orthopaedic	:	Tendon repair, bone graft, Cartilage binding
Surgical oncology	:	Thyroid & Breast malignancy surgery.
Pediatric	:	Lacerations, Hernia, Cleft palate, cleft lip.

References

FaroukR, Drew Pj, Qureshi A, Roberts AC, Duthie GS, Monson RJT. Preliminary experience with butyl-2cyanoacrylate adhesive in tension-freeuinal hernia Repair. British Journal of Surgery 1996;83:1100

Samuel PR, Roberts AC, Nigam A. The use of (n-butyl cyanoacrylate) in otorhinolaryngology and headneck Surgery: A preliminary report on the first 33 patients. The Journal of laryngology and Otology June 1997; Vol III 536-540.

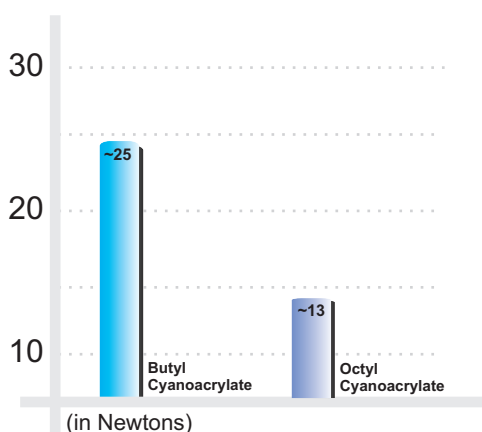
Qureshi A, Roberts AC Drew pj, Monson JRT, Duthie GS. N-Butyk cyanoacrylate adhesive for skin closure of abdominal wounds: Preliminary results. Ann R Coll Surg Engl.1997;19:414-415

Kulkarni Sudhindra ,Dodwad Vidya, Chava Vijay. Healing of periodontal flaps when closed with silk sutures and N-butyl cyanoacrylate: A clinical and histological study. Indian J Dent Res 2007;18:72-7

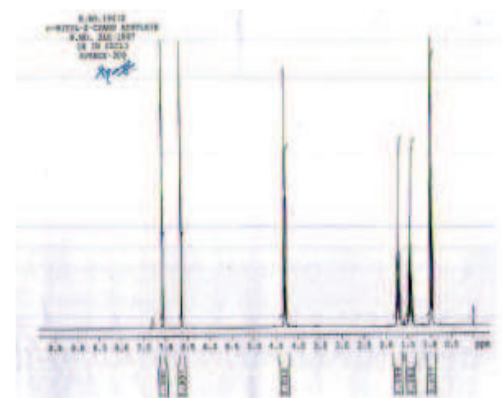
CHENG Liu-fang, WANG Zhi-qiang, LI Chang-zheng et.al. Treatment of gastric varices by endoscopic sclerotherapy using butyl cyanoacrylate: 10 years' experience of 635 cases. Chinese Medical Journal 2007; 120(23):2081-2085

Amiel GE, Sukhotnik I, Kawar B, and Siplovich L. Use of N-Butyl-2-cyanoacrylate in Elective Surgical Incisions - Longterm Outcomes. J Am Coll Surg, Vol 189, 21-25 (1999)

Tensile Stregth Comparison



N.M.R Chart



N-BUTYL-2-CYANOACRYLATE

XOIN[®]

TOPICAL SKIN ADHESIVE

WARNING

XOIN IS NOT AN INJECTION

NOT FOR INTRAVENOUS USE

NOT FOR INTRA-MUSCULAR USE

ONLY TO BE USED BY SURGEON OR A REGISTERED MEDICAL PRACTITIONER

XOIN IS A SINGLE USE MEDICAL DEVICE



Product Information

INDICATIONS

XOIN is indicated for the closure of topical skin cuts, wounds and incisions including laparoscopic incisions, which have easily approximated edges with minimal tension and are thoroughly cleansed and without any evidence of infection.

CONTRA-INDICATIONS

XOIN should not be used internally (under the tissue or skin) as it may lead to foreign body reaction as the product is not absorbed in the tissues.

XOIN should not be used or applied on any internal organs or vascular bodies or brain tissue.

XOIN is not be used to close any wounds or cuts that show infection.

XOIN is not to be used on patients that are allergic or hypersensitive to tissue adhesives and any products containing cyanoacrylate products and formaldehyde.

Tissue Adhesives are not be used in patients that have diseases or conditions that are known to interfere in healing process.

XOIN is not be used on cuts and wounds where extreme skin tensions occur like elbows and knees.

WARNINGS

XOIN is not an injection and is not to be used for intravenous or intramuscular purposes.

XOIN is to be applied on thoroughly cleansed cuts or wounds that do not show any evidence of infection.

Use XOIN sparingly as excess application it may lead to tissue damage due to heat of polymerization.

Do not introduce XOIN into the wound as it may hinder the wound healing.

XOIN is a free flowing blue liquid. If the product appears solidified or not free flowing please discard the package immediately.

XOIN is a single use device.

XOIN needs to be used within five minutes of opening the blister package.

STORAGE

Store below 40°C in a dry place

PRECAUTIONS

As XOIN bonds to many surfaces, care should be taken so that gloves, surgical instruments does not come into contact during applications.

Spilt product can be flushed with water which solidifies the product.

Care should be taken not to introduce the product into the eyes as it can bond the eye lids.

In case of accidental bonding, do not pull apart the bonded edges. Use copious amount of water to flush out the product.

If the bonding already occurred, use petroleum products like acetone or dimethyl formamide to dissolve the polymerized product.

Usually within three to four days separation occurs due to the moisture and tears in the eyes.

USE OF THE DEVICE

The device is held between forefinger and thumb. Firm pressure is applied on the middle of cylindrical plastic jacket to crush the glass ampule inside. The adhesive is released into the plastic jacket.

The device is turned upside down and moved near the site of application. By applying firm pressure using the fingers, micro drops of adhesive are delivered on to the closely approximated skin edges.

The tip of the device is not allowed to get in contact with the skin, tissue or open wound during the whole procedure.

Wait for 30 to 60 seconds for the polymerization and bonding to complete.

The closed cut or wound can be supplemented with wound tapes or sutures if required especially in case of a long cut or there is a possibility of stretching exists.

