# ChitoTech Products

ChitoTech was developed from a research facility to study natural biopolymers and their applications in medicine. The manufacturing site of the company was established in 2004. It is the first company in the Middle East producing antiseptic solutions based on nanosilver, advanced wound care and hemostatic products. ChitoTech products have the approval of Ministry of Health as well as CE. ISO13485, ISO 9001 certificates, Our biological wound care has patents from Denmark. France, Germany, Ireland (No1246650) and from England (No GB2358354). ChitoTech wound care products are suitable for a wide range of ulcers and burn wounds. Hemostatic products of ChitoTech are in different forms and are suitable for stopping venous and arterial bleedings. Products:

Antiseptics
 Hemostatic products
 Wound Healing products
 Secondary dressings
 First Aid

## Antiseptics

#### Introduction:

SivoSept antiseptic solutions are a novel class of non - alcoholic antiseptics using nanocolloidal silver technology. They are effective against a wide range of pathogens including bacteria, viruses and fungus.

#### Mechanism of action:

Saker nanoparticles are potent and broad-spectrum antimicrobial agents due to their externeyl kinge surface area, which provides better contact with microorganisms. The nanoparticles get attached to the cell membrane and also penetrates inside the bacteria. Silver nanoparticles interact with proteins in the cell wall and also attack the respiratory chain, prantylarja gold division finally leading to cell death.

#### Features& benefits

- A novel non-alcoholic antiseptic solutions using nano silver technolog
  - Eliminates a wide range of pathogenic bacteria, viruses particularly HIV and
  - No alcohol is used in these products thus preventing burning and stinging sense on in wound and domess of skin in general
- Inlike most antisantic solutions there is no had order
- It is colorless and leaves no stair

#### Products:

- SilvoSent Wound & SilvoSent Rum
- SilvoSept for Prep & SilvoSept Suitable Prior to Injection
- . SilvoSept Hand Wash & SilvoSept Hand Foar
- SilvoSept Surface and Floor Disinfectant
- SilvoSept Tools and Instrument Disinfectant & Dental Instrument Disinfectan
  - Caspia Ena

#### SilvoSept Hand Wash ጲ

### SilvoSept Hand Foam

#### Description:

#### SilvoSept Hand Wash:

Odorless solution for hand scrub in hospitals and general public.

SilvoSept Hand Foam: Foam for hand hygiene leaving a soft and pleasant feeling and odor.

#### Features & henefits:

- No irritation
- No sensitivity
- No toxicity
- Alcohol free
  - Colorless Prevents skin dryness





















4- By circular movements decontami-

3-Smear SilvoSept on the right forearm nate whole skin area. up to the elbow.

right hand in the SilvoSept to decon-

> 4- Rub backs of fin- 3-Put right palm over gers with fingers in- left dorsum and vice terlocked.

	031450	50		
SilvoSept Hand Wash	0314500	500		
	03141000	1000		

SilvoSept Hand Foam	031550	50

#### SilvoSept Wound & SilvoSept Burn

#### Description:

SilvoSent wound: Designed for general purposes

and wound irrigation for all types of wound

#### SilvoSept burn:

Antiseptic solution suitable for L.II. and III degree hurns

#### Features& henefits:

- No irritation No sensitivity
- No toxicity
- Odorless
- Alcohol free
- Coloriose















SilvoSept	031265	65	
	0312100	100	
Burn	0312500	500	
	03121000	1000	

#### SilvoSept for Prep & SilvoSept Suitable **Prior to Injection**

#### Description:

#### SilvoSept for prep:

For preparing a patients skin prior to surgeries. This product is colared in arder to see the field the solution is used.

#### SilvoSept Suitable Prior to Injection:

Suitable for preparing area for

injection Features & benefits:

- SilvoSept for prep: · Contains mild color
- . No irritation, no toxicity
- Oriorless
- · Alcohol free

#### SilvoSept Suitable Prior to Iniection:

- . No irritation , no sensitivity, no toxicity
- Odorless
- Alcohol free



surgery.















SilvoSept for	0313100	100
Prep	03131000	1000

		Size	
SilvoSept Suitable	0311100	100	
Prior to Injection	0311250	250	

#### SilvoSept Surface and Floor. SilvoSept Tools and Instrument & SilvoSept Dental Instrument Disinfectant:

Description: SilvoSept Surface and Floor

Disinfectant: For cleaning surface and floor.

SilvoSept Tools and Instrument and Dental Instrument

Disinfectant: For cleaning tools and instrument.

Features& henefits:

- No corrosion effect
- Colorless
- Alcohol free Ododess













1.2- Diute one part of SilvoSept with nine



WITHIT

ממתחוו

3-Keep tools and instrument in it for at least

1.2- Diute one part of SilvoSept with nine parts of distilled water and dispense in a suit-





3.4. Disinfect designs area according to schedule using a suitable cleaning tool.

0317100	100
03171000Con	1000
03171000	1000
0322250	250
	0317100 03171000Con 03171000

Silvosept Surface and Floor	0316100	100
	03161000Con	1000
Disinfectant	03161000	1000

#### **Caspia Foam**

Description: Genital cleaning foam, gently cleanses and soothes irritation and itching.

- Features & henefits:
- Pleasant odor
- No irritation
- No sensitivity
- No toxicity Alcohol free
- Coloriess
- Skin softener
- No water needed after application







1: place Caspia Foam on a clean tissue paper. area after use.

Product Name		Size nt.
Caspia Foam	031950	50

## Hemostatic Products

#### Introduction:

ChitoTech hemostatic products are made of natural cellulosic biopolymers. There are different products Including powder, pads, gauze, nose and dental tampons & plable foam to suit all types of bleedings in any parts of the body.

Depending on the type of products, they can stop arterial, venous and capillary bleedings.

#### Mechanism of action:

The mechanism of action of ChitoTech hemostatic products are two folds. On The one hand super absorbent nature of the product causes the blood Serum to be absorbed thus increasing the concentration of blood elements and platelets. On the other hand the positive and negative charges in the products attract the opposite charges in blood elements thus accelerating dot formation.

#### Products:

- ChitoHen
- ChitoCell
- HemoGauze
- EpiCell & SuperEpiCell
   DentalCell
- HemoFoam

#### ChitoHem

#### Description:

ChitoHem is a hemostatic powder derived from natural cellulose. It is suitable for all types of bleeding

#### narticularly arterial bleeding Features & henefite:

- · Hemostasis of arterial and
- venous bleedings. · Readily dissolves in body fluids.
- · Reduces the need for blood transfusion
- · Easy to use.
- Non alleroic.

#### Applications:

- Cardiovascular Orthopedic ENT and other types of soft tissue surgery. Soft Tissue Surgery.
- Angiography.
- Accidente
- Laparoscopy.
- · Conquionathic disorders including hemophilis, you will brand, etc.

#### HemoFoam

#### Description:

Hemofoam is soft, foam like hemostatic dressing made of

natural biopolymers, It is designed for hemodialysis patients. It stone both arterial and venous bloodings when applied to the eite of bleeding. It can be removed easily when hemostasis is achieved



1. Remove the sheeth. 2. Fix HamoFoam.

Meeting site and nests, when Meeting has it neptly for 3 to 5

Place HemoFoem over with ChitoTrans

Features & henefits Rapid hemostasis.

Easy to use.

Non allergic

Application:

HomoFoam 0515

Hemodialysis









2- Directly sprivide the powder on blevst-





Gent	
ding	
with	



Product Name		
	051105	Ī
ChitoHem	05111	
	05113	

205 25 05113	205 25 05113	2020	20×20	ChitoHem	05111
		205	25		05113
		205	25		05113

#### EpiCell.SuperEpiCell & DentaCell

#### Description:

EpiCell:

Tampon shape dressing with hemostatic properties for nasal bleeding.

#### SuperEniCells

Tampon shape dressing with reinforced hemostatic properties for pasal bleeding

#### DentalCell:

Soft & pliable tampon shape dressing with hemostatic properties for dental bleeding.

#### Features & benefits:

- Rapid hemostasis. Fasy and safe to use
- Made of cellulosic fabric and has a safety thread to pull it out without
  - demaging the nostrils or the dental bleeding site.

#### Applications:

#### EpiCell:

Nasal Bleeding

#### SuperEpiCell:

Nasal bleeding especial for

coagulopathic disorders (Hemophilia)

DentalCell: Dental Bleeding







has stopped, pull





outside for 1-2 minutes. When bleeding down EpiCell slowly with the help of safety

1- Place DentalCell 2-When bleeding has over the bleeding site. stopped, take the Breen it for 1.2 min. DentelCell out union utes and leave the the safety thread.

	Size
0512530	5×3
0512835	8x3
0513530	5×3
0513835	8×3
	0512530 0512835 0513530

outh unwant slightly

make sure the safety

Product Name	Code	Size
DentalCell	05164040	40×40
		10-10

## ChitoCell

Description:

ChitoCell is an oxidized regenerated cellulosic polymer with hemostatic properties. This product is suitable for venous bleedings.

- Features & benefits: Rapid hemostasis.
- · Soft and comfortable therefore suitable for all parts of body.

#### Applications:

· All surgeries, anastomosis, tumor beds, neuro-surgeries a plastic surgeries.

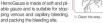




#### HemoGauze

#### Description:

HemoGauze is made of soft and pliable gauze and is suitable for stonping venous and capillary bleeding.



#### Features & henefits: . Stop venous and capitary bleeding

- very quickly.
- · Soft and comfortable therefore suitable for all parts of body.

#### Applications:

- · Emergency.



2- place ChitoCell on the bleeding site and apply slight pressure secure it with stitches if necessary.







4-Make sum bleed-

bleeding site, compress directly for a few minutes.

Product Name	Code	Size
ChitoCell	05105080	50×80
	05105035	50×35
	0510100200	100×200

Product Name	Code	Size
HemoGauze	05141004005	100×400 (5 piece)
HemoGauze	0514100400	100×400

## Wound healing Products

Ohto Tech wound heading products are made of natural cellulosic biopolymers. They are biological, most wound dressing and designed as primary dressing used directly on the wound. They are produced in different forms in order to cover all chonic and actue wound and all grades of wound from superficial to 4th degree, infected and cavify wounds. Also the dressings are suitable for burn wounds.

Mechanism of action:

When there is a wound, the integrity of tissue is compromised and as a result the

ChitoTeich bioactive wound dressings act as a chemoattractant, enhancin and localizing macrophages, cytokines and other vital micromolecules necessary to start the cascade of healing. By providing a moist environment the relevant biomol ecules can migrate to the site of injury easily and in an accelerated manner and a a result the provess of healing, and start strainful way.

#### Products:

- HealAld
- ChitoHeal Gel
- ChitoCavity, ChitoSorb
- . ChitoPowder, Ostomy Powder
- · Calcium Alginate Filler Dressing
- ChitoDebrid Gel & ChitoDebrid Pa

#### HealAid

#### Description:

HealAid is a self-adhesive healing bandage suitable for all types of injuries as a first aid. It is made of natural cellulosic fibers coated with non-allergic medical grade arthesive

#### Features & benefits:

- . Easy to apply
- No bandage or adhesive needed to fix it.
- Does not stick to the skin. . Can be applied directly to a wound and wet skin.

#### Applications:

- \* All types of wounds such as scratches, cuts
- · Emergencies.







1- Clean the surface of wound using SilvoSept.

site and wrap it around the

Product Name		Sizeon
HealAid	01181001000	10×100
neilAid	0118501000	5×100





#### ChitoHeal Gel

#### Description:

ChitoHeal get is a primary biological dressing, suitable

for all types of wound. It is a powerful wound healing product, forming a secondary skin on the site of wound protecting and healing it at the same time.

#### Features & henefits:

- . Accelerating the rate of healing
- · Anti-hacterial
- Hemostatic . Pain relief
- . Easily to use
- · Scar reduction Non toxic ,non allergic

#### Annlications:

- First & second degree burn
- \* Cuts & Scratches
- Diabetic foot ulcers ( I degree)
- · First aid dressing . Umbilical cord and circumcision locations









Product Name	Code	Size mL
ChitoHeal Gel	01144	4
	011420	20
	011460	60





3. If necessary cover the area with

#### ChitoHeal Film

Description: ChitoHeal film is a primary biological film dressing consisting of natural marine biopolymers; it maintains a moist wound environment and accelerates the healing rate.

#### Features & benefits:

#### Soft and pliable

- Transparent
- · Anti-bacterial
- Hemostatic
- . High vapour transmission rate and oxygen
- permeability . Accelerating the rate of healing
- · Pain relief
- · Reduce scar formation
- . Non toxic ,non allergic

#### Applications:

#### · Burn wounds

- · Bed sore
- · Surgical wound
- · Skin graft donor site
- . Diabetic foot ulcers







1- Clean wound with SilvoSept.

	01105060	50×60
ChitoHeal Film	011060100	60×100
	0110100100	100×100





4- secure it with ChitoTrans. 3-Place ChitoPad or ChitoAbsor-

#### ChitoCavity

#### Description:

ChitoCavity is a primary biological absorbent dressing suitable for exuding deep and cavity wounds. This product is made of natural biopolymer and is in medical

#### grade non - adhering pouch. Features & benefits:

- . Accelerating the rate of wound healing and absorbing exudates
- \* Non-toxic .Non-allergic . Non-adherent to wound bed

#### Applications:

- Deep and cavity wound including: Prossure ulcers
- Diabetic foot ulcers.
- Vascular ulcers.
- Infected wounds

#### ChitoSorb:

#### Description:

ChitoSorb is a primary biological absorbent dissisting containing medical grade active carbon. It is suitable for absorbing and eliminating odors from infected wounds. It is made of natural biopolymers and is in medi-

#### cal grade non-adhering pouch. Features & benefits:

- \* Non-toxic Non-allergic
- . Absorbing exurtates and infect-
- ed wounds odors Non-adherent to wound hed

#### Applications: Infected wounds















with ChitoAbsorberd

ChitaCarda	01115050	50×50
ChiloCavity	01117070	70×70

0	Product Name		
0)	ChitoSorb	01155050	50×50

#### Description:

ChitoPowder is a primary absorbent powder which is a powerful wound healing suitable for tunneling or cavity

#### Features & henefits:

- wounds · Accelerating wound healing Antibacterial
- . Non toxic, non allergic . Can be used in tunneling and

#### cavity wounds Applications:

- Pressure ulcers
- Diabetic foot ulcers Infected wound
- Pilonidal sinus



#### Description:

Ostomy powder is a primary absorbent powder derived from natural substance suitable for ostomy wounds.

#### Features & benefits:

- . Highly absorbent
- . Very easy to apply . Non allergic
- . Protection of skin around ostoma site

#### Applications: Ostomy wounds



2-Sprinkle the

bag over it.

1- Clean around the













ChitoPowder 01125

## ChitoDebrid Gel & ChitoDebrid pad

#### Description:

ChitoDebrid gel and ChitoDebrid Pad are two primary biological dressing made of sodium alginate. They are suitable for autolytically removing necrotic and slough tissues without damaging the

#### viable healing tissue.

- Features & benefits:

  \*Selective autolytic debridement
- with no pain and bleeding

  Moisturizing dry, necrotic tissues.

  Non-arthering to wound surface.

#### Applications:

 All types of wounds with necrotic or slough tissue













 Clean wound using SilvoSept.

2,3-Apply ChitoDebrid Pad or place Chitodebrid gel on the desired area.

toPad and fix v toTrans.



	Size
01137070	70×70
0113100100	100×100
	01137070

#### Description:

The Calcium Alginate flat and rope dressings are derived from seawood It is highly absorbent and due to presence of calcium ions in the dressing when in contact with sodium ions of wound exudates, it gradually forms a moist soft gel. It also creates optimal moist wound healing environment.

### Features & benefits: tunneling wounds

- Good biocompatibility · A long narrow, ribbon shaped dressing easily used in cavity and
- . Highly absorbent and due to presence of calcium ions when in contact with wound exudates forms a moist gel and provides the ontimal moist wound healing
- \*It is highly absorbent and due to presence of calcium ions when in contact with wound exudates forms a moist del and provides the optimal moist wound healing
- . Do not stick to the ulcer and can
- be easily removed.
- . Can be used in cavity wounds and fissurectomy without packing it



#### Applications:

 Highly to moderate secreting cavity or tunneling ulcer findluding hedsore Leguicer dishetic wound and second degree burns)

 Pilonidal sinus After fissurectomy





2. Plane Calnium Alni Change the dressing after it is in form cel. udates has subsided



care with other Chi-



## Secondary Dressings

ChitoTech secondary dressings are used to fix primary dressings and maintain them in place. These dressings promote the flow of fluid into the fluid-absorbing material.

#### Absorbants

ChitoPad,

#### Protectives:

- Protectives:
- ChitoTrar
  - Hallo I.v., ∩hitoTrane Dai
- ChitoTrans Par

#### Description:

Flexible skin closure strips made of soft, non-woven elastic backing coated with a pressure-sensitive, hypoallergenic adhesive.

#### Features & benefits:

Breathable, porous, elastic backing which can be used on contoured body areas or where bending and movement occur.

·Eliminates puncture marks and reduce scar formation for better cosmetic results than sutures or staples. ·Fast and easy to apply to save time.

Hypoallergenic adhesive.

 Available in a variety of sizes to meet your needs. \*Flexible non-woven backing allows for expansion

arising from oedema. Available in sterile pouches.

- Applications:
- Emergency departments Operating rooms
- . Clinics and physicians offices
- Cosmetic Surgeries

			- PUM
	041213100	13×100	-
	041220100	20×100	1- Clean the wound site wit
	041225127	25×127	SilvoSept.
ChitoStrip	0412375	3×75	17
	04126100	6×100	
	0412638	6×38	100
	0412650	6×50	4- Place remaining strips or
	0412675	6×75	opposite direction.













3-Pring two edges of incision

## ChitoAbsorbent &

#### Description:

ChitoAbsorbent: ChitnAbsorbent: Made of super absorbent microfibers placed in

#### non-artherent nouch suitable for high exuding wounds.

ChitoPad: Double eided non-adherent wound dressing, prepared from absorbent

#### micro-fibers Features & honofites

#### ChitoAbsorbent:

\*Highly absorbent up to 3000 percent (ie 1g absorbs 30g water) Absorbs wound exudates.

bacteria and cell debris . Covered by a polyethylene pouch to prevent sticking to wounds and allows rapid passage of exudates

#### ChitoPad-

 Absorbant non acherent way inclined. Laminated with PE net to prevent achesion to wounds and allows rapid nassage of wound exidates flyough the way and need onen weeken

#### Applications: ChitoAbsorbent:

- · Highly secreting wounds like: pressure ulcer, diabetic foot ulcer. lea ulcer fournier gangrene
- All europrine Drainage sites
- Burns
- Oetoma eita

#### ChitoPad:

Suitable for all tunes of wounds















ChitoPad	0411100100	100×10
	0411100150	100×15
	0411100200	100×20
	0411100300	100-20

0410100100 100+10 ChitaAbsorbeat 0410100100D 100-10 0410150150 150+15

### ChitoTrans &

Description: ChitoTrans:

Transparent protective wound dressing with wide applications. It is bacteria proof and waterproof film coated with hypoallergenic arthesive



Cannula fixation dressing made from transparent backing.



#### ChitoTrans:

- Very easy to apply
- Non allergic · Waterproof so patient can take
- shower · ChitoTrans allows wounds to

#### breath with high transmission rate

- Trans IV: · Special design and construction
- for catheters · Minimizes dressing changes
- Non alleroid

#### Applications:

- ChitoTrans: . Wound dressing for primary and
- secondary care of dry and slightly secreting wounds. · All surgical incisions
- Prevention of bed sore

Trans IV: Catheters fixation



















## ChitoPore & ChitoTrans pa

#### Description:

ChitoPore and ChitoTrans Pad are two types of dressings suitable for covering all types of wound including

covering all types of visual including inclisions and sutured wounds. Ofthere is made of non-woven backing and is sutable for sensitive series including chicken and deterly. Chito Trans pad is made of waterproof adhesive backing suitable for all types of wounds including cesaren section. It is possible to shower with ChitoTrans Pad dressive.



- Soft, breathable backing.
   Absorbent non-adhering pad.
   Low allergy adhesive is evenly spread onto the backing surface.
- providing safe and secure dressing fixation over the wound site.

  The non-adherent pad minimizes fluid striking through and helps to protect the wound from trauma.

  Individually packed in peel pouch

#### and sterilized by E.O. Applications:

 Secondary dressing suitable for all types of wounds















041880100

Product Name		Size_
	0416100100	10×10
	0416100150	10×15
	0416100200	10×20
	0416100250	10×25
ChitoTrans Pad	0416100300	10×30
	0416100350	10×35
	04166070	6×7
(	04165075	5×7

#### First Aid

Each year, many people are affected by natural disasters. Accidental emergencies are the fifth leading cause of death. ChitoTech first aid boxes:

- Advanced first aid hox
- Car first aid box
- Companion first aid bag
   General dressing kit

#### Advanced first aid hox:

Advanced first aid box offers a complete home or vehicle medical box equipped to treat multiple injuries during medical emergencies. It features the same advanced medical supplies with greater quantity geared for a family, car, office including Silvost, HemoSauze, ChitoHeal Gel, Eye Pad, Scissors, Sterlie Gauze, Pressue dressina and much more.

#### Car First Aid Box:

Car first aid box offers a much more complete box suitable for emergencies. It includes a variety of first aid products such as SilvoSept, ChitoHeal gel, Hemoguze, Eye Pad, many types of adhesives, pressure dressings and much more.

#### Companion First Aid Bag:

Compact, lightweight first aid bag offers a wide range of medical supplies to treat a variety of injuries. It includes HemoGauze, ChitoHeal Gel, Sterile Gauze, pressure dressings, and much more.

#### General Dressing Kit:

General dressing kit equipped to treat multiple sterile items suitable for dressing in hospital and at home.





Advanced first aid box	0214	110×130
Car first aid box	0211	200×260
Companion first aid bag	0212	90×125
General dressing kit	0210	240×240

#### Petrolatum Gauze

#### Description:

Petrolatum gauze is an occlusive, continuous. nonadhering dressing, with no loose threading, impregnated with white medical grade petrolatum. This fine mesh gauze clings and conforms without sticking and it is easily used for all body contours with the help of applicator. Petrolatum gauze has no threading therefore eliminating infection after removal.

#### Features & henefits:

- · With no loose threading
- . With special applicator
- · Very easy to apply
- . Conforms to all body contours Variation of size.
- Sterilized and individually packed
- Applications:

- All type of wounds (Burns, Radiation burns). surgeries (ENT, gynecology)
  - . To fill ulcer cavities.
  - . Skin grafts and cosmetic surgeries







2. Arrely this representate size of petrolatum Gauge to the





Product Name		Size m
Petrolatum Gauze	01171001000	100×1000
	01171100400	100×400
	011712001000	200×1000

#### Description:

Combat Bandage is an advanced dressing for front line medical professionals. It consists of hemostatic dressing supported by superabsorbent pad. A clip device, pressure bar, on the dressing applies compression on the site of bleeding and a hooking ends secure the bandage tightly therefore there is no further need for adhesive.

#### Features & henefits:

- Stops bleedings
- Soft and comfortable therefore suitable for all parts of external bleedings
- . It has an elastic bandage and superabsorbent pad. Sterile.
- . It has a pressure bar for fixing the bandage tightly.

#### Application:

 Emergency Firet aid









2- Wrap the elastic bandage around bleeding site, then insert it into pressure bar.







4- Pull-back the bandage forcing pressure bar down onto pad.



3- Tighten elastic bandage by pulling it toward yourself.



European Product Quality Certificate



Patent for wound dressing from Denmark, Germany, France, Ireland





Quality Management System Certificate

