

**CENTER FOR DRUG EVALUATION AND
RESEARCH**

APPLICATION NUMBER:

205555Orig1s000

LABELING

HIGHLIGHTS OF PRESCRIBING INFORMATION

These highlights do not include all the information needed to use STERITALC[®] safely and effectively. See full prescribing information for STERITALC[®].

STERITALC[®] (talc), powder, for intrapleural use
Initial U.S. Approval: 2003

INDICATIONS AND USAGE

STERITALC[®] is a sclerosing agent indicated:

- To decrease the recurrence of malignant pleural effusions in symptomatic patients following maximal drainage of the pleural effusion. (1.1)
- In adults to decrease the recurrence of pneumothorax. (1.2)

DOSAGE AND ADMINISTRATION

- Malignant Pleural Effusion: The recommended dose is 2 to 5 grams administered intrapleurally. (2.2)
- Pneumothorax: The recommended dose is 2 grams administered intrapleurally.
- Do not exceed a total cumulative dosage of 10 grams per procedure. (2.3)
- Prepare and administer as recommended. (2.5)

DOSAGE FORMS AND STRENGTHS

- Powder: 2 grams, in a 50 mL single-dose vial (3)
- Powder: 4 grams, in a 50 mL single-dose vial (3)
- Powder: 3 grams, in a 10 mL single-dose vial (3)

CONTRAINDICATIONS

Pregnancy. (4, 5.3, 8.1)

WARNINGS AND PRECAUTIONS

- Pneumonitis and Acute Respiratory Distress Syndrome (ARDS): Acute Pneumonitis and ARDS, have been reported with intrapleural use of various talc products. (5.1)
- Interference with Future Procedures: Sclerosis of the pleural space may preclude or complicate subsequent ipsilateral surgery and diagnostic procedures. (5.2)
- Lead Content: STERITALC[®] contains lead as an impurity. May cause lead toxicity, especially in children. (5.3)

ADVERSE REACTIONS

Common adverse reactions are fever and pain. (6)

To report SUSPECTED ADVERSE REACTIONS, contact Boston Medical Product Inc., at 508-898-9300 or FDA at 1-800-FDA-1088 or www.fda.gov/medwatch.

USE IN SPECIFIC POPULATIONS

- Females and Males of Reproductive Potential: Advise females of reproductive potential to use effective contraception. (8.3)
- Lactation: Advise women not to breastfeed. (8.2)

See 17 for PATIENT COUNSELING INFORMATION

Revised: 05/2017

FULL PRESCRIBING INFORMATION: CONTENTS*

1. INDICATIONS AND USAGE

- 1.1 Malignant Pleural Effusion
- 1.2 Pneumothorax

2. DOSAGE AND ADMINISTRATION

- 2.1 Important Use Information
- 2.2 Recommended Dose for Malignant Pleural Effusion
- 2.3 Recommended Dose for Pneumothorax
- 2.4 Preparation
- 2.5 Administration

3. DOSAGE FORMS AND STRENGTHS

4. CONTRAINDICATIONS

5. WARNINGS AND PERCAUTIONS

- 5.1 Pneumonitis and Acute Respiratory Distress Syndrome (ARDS)
- 5.2 Interference with Future Procedures

5.3 Lead Content

6. ADVERSE REACTIONS

8. USE IN SPECIFIC POPULATIONS

- 8.1 Pregnancy
- 8.2 Lactation
- 8.3 Pediatric Use

11. DESCRIPTION

12. CLINICAL PHARMACOLOGY

- 12.1 Mechanism of Action

13. NONCLINICAL TOXICOLOGY

- 13.1 Carcinogenesis, Mutagenesis, Impairment of Fertility

16. HOW SUPPLIED/STORAGE AND HANDLING

17. PATIENT COUNSELLING INFORMATION

*Sections or subsections omitted from the full prescribing information are not listed.

FULL PRESCRIBING INFORMATION

1. INDICATIONS AND USAGE

1.1 Malignant Pleural Effusion

STERITALC is indicated to decrease the recurrence of malignant pleural effusions in symptomatic patients following maximal drainage of the pleural effusion.

1.2 Pneumothorax

STERITALC is indicated in adults to decrease the recurrence of pneumothorax.

2. DOSAGE AND ADMINISTRATION

2.1 Important Use Information

STERITALC is for pleurodesis only - Do NOT administer STERITALC intravenously.

Administer STERITALC after adequate drainage of the pleural effusion or air.

2.2 Recommended Dose for Malignant Pleural Effusion

The recommended dose for malignant pleural effusion is 2 to 5 grams administered intrapleurally. According to the physician's discretion, and in consideration of diagnosis and patient's condition, different dosages may be applied, but a total dosage of 10 grams should not be exceeded.

2.3 Recommended Dose for Pneumothorax

The recommended dose for pneumothorax is 2 grams administered intrapleurally. According to physician's discretion and in consideration of diagnosis and patient's condition, different dosages may be applied, but a cumulative dosage of 10 grams should not be exceeded.

2.4 Preparation

Slurry for Tube Thoracostomy

STERITALC® 2 grams and 4 grams dosage forms

Do not prepare the slurry in advance. Use the slurry immediately after preparation.

Prepare the talc suspension using aseptic technique in an appropriate laminar flow hood as follows:

Step 1: Fully bend or remove the flap into the direction of the arrow. The top can now be punctured to mix the slurry.

Step 2: Using a 16 gauge needle attached to a 60-mL Luer Lok syringe, draw up 50 mL of 0.9 % Sodium Chloride injection, USP. Vent the talc bottle using a needle. Slowly inject the 50 mL of 0.9% Sodium Chloride Injection, USP into the glass vial.

Step 3: Swirl the glass vial to disperse the talc powder.

Step 4: Divide the contents of the glass vial equally into two 60-mL Luer Lok syringes, each attached with a 16 gauge needle, by withdrawing 25 mL of the suspension into each syringe with continuous swirling. Add 0.9% Sodium Chloride Injection, USP to a total volume of 50 mL in each syringe. Draw 10 mL of air into each syringe to the 60 mL mark to serve as a headspace for mixing prior to administration.

For STERITALC 2 grams, each syringe should contain 1 gram of Sterile Talc Powder in 50 mL of 0.9% Sodium Chloride Injection, USP with an air headspace of 10 mL.

For STERITALC 4 grams, each syringe should contain 2 grams of Sterile Talc Powder in 50 mL of 0.9% Sodium Chloride Injection, USP with an air headspace of 10 mL.

Step 5: Label the syringes with the talc concentration, the expiration date and time, the identity of the patient intended to receive the material, and the following statements:

“SHAKE SYRINGE WELL to resuspend before administration”

“FOR PLEURODESIS ONLY – not for intravenous administration”

Step 6: If not used immediately, store prepared suspension in refrigerator. Discard the prepared suspension if not used within 12 hours.

Insufflation/Poudrage

STERITALC[®] 2 grams and 4 grams dosage forms

Use an FDA-approved or cleared device for STERITALC insufflation/poudrage.

Step 1: Fully remove the top from the vial.

Step 2: Fill the content into the applicator for insufflation/poudrage.

Step 3: Follow the selected device manufacturer's instructions for insufflation/poudrage.

STERITALC[®] 3 grams dosage form

STERITALC[®] 3 grams is designed to be used for the administration of talc in combination with a compatible FDA approved or FDA cleared device intended for manual insufflation of medical grade talc into the pleural cavity during pleurodesis such as Novatech SA's NOVATECH[®] TALCAIR[™].

Step 1: Remove the aluminum tear-off cap from the vial.

Step 2: Remove the stopper from the vial.

Step 3: Close the vial with the vial coupling.

Step 4: Firmly press the vial coupling onto the vial until you feel and hear the lid "click" onto the vial top. To do this, place the vial on a firm and level base.

Step 5: Connect the insufflation bulb to the vial coupling using the Luer lock connector.

Step 6: Ensure that all components are firmly connected with each other.

2.5 Administration

Slurry for Tube Thoracostomy

STERITALC® 2 grams and 4 grams dosage forms

Prior to administration, continuously agitate the syringes to evenly redisperse the talc and avoid settlement. Immediately prior to administration, vent the 10 mL air headspace from each syringe. Administer the talc suspension through the chest tube according to standard procedures.

Step 1: Inject the slurry through the pleural drainage into the pleural cavity.

Step 2: Clamp the pleural drainage. Keep the negative pressure in the pleural cavity.

Step 3: While the slurry remains in the pleural cavity, reposition the patient regularly to achieve even distribution of the slurry.

Step 4: Aspirate the slurry through the pleural drainage.

Insufflation/Poudrage

Perform intervention by means of a tube thoracoscopy. Follow the selected device manufacturer's instructions for insufflation/poudrage.

STERITALC® 2 grams and 4 grams dosage forms

Step 1: Introduce the cannula into the trocar.

Step 2: Distribute the talc evenly in the pleural cavity. To do this, carefully spray several times. After spraying a few times, change the cannula direction.

After use, some talc may remain in the vial. Discard unused portion.

STERITALC® 3 grams dosage form

Keep the product upright during use. Avoid contact between the cannula tip and tissue/body fluids. Otherwise the cannula may be blocked. In case of blockage: Shorten the cannula with a scalpel to be able to continue the intervention. Cut perpendicularly to the cannula and ensure that the cutting edge is straight and free of burs.

Step 1: Introduce the cannula into the trocar.

Step 2: Distribute the talc evenly in the pleural cavity. To do this, press the insufflation bulb carefully and at regular intervals. After spraying a few times, change the cannula direction.

After use, some talc may remain in the vial. Discard unused portion.

3. DOSAGE FORMS AND STRENGTHS

White or off-white to light gray sterile powder provided in the following strengths:

- Powder, for intrapleural use: STERITALC[®], 2 grams in a 50 mL single-dose vial
- Powder, for intrapleural use: STERITALC[®], 4 grams in a 50 mL single-dose vial
- Powder, for intrapleural use: STERITALC[®], 3 grams in a 10 mL single-dose vial, for use with Novatech SA's NOVATECH[®] TALCAIR[™]

4. CONTRAINDICATIONS

Due to lead content, STERITALC[®] is contraindicated in pregnant women and can cause fetal harm and potential loss of pregnancy [*see Warnings and Precautions (5.3) and Use in Specific Populations (8.1)*].

5. WARNINGS AND PRECAUTIONS

5.1 Pneumonitis and Acute Respiratory Distress Syndrome (ARDS)

Acute Pneumonitis and ARDS, including fatal cases, have been reported with intrapleural use of various talc products. Systemic exposure of talc could be affected by the integrity of the visceral pleura and could be increased if talc is administered immediately after mechanical abrasion or biopsy of the pleura. The literature also suggests a possible correlation between talc particle size distribution and risk of toxicity.

There are published reports of two large, prospective trials conducted to evaluate the safety of STERITALC administered intrapleurally. One trial evaluated 558 patients treated with STERITALC 4g by poudrage for MPE. The second trial evaluated 418 patients with recurrent primary spontaneous pneumothorax treated with STERITALC 2 g by poudrage. No cases of ARDS or talc-related lung injury were reported.

5.2 Interference with Future Procedures

Sclerosis of the pleural space may preclude or complicate subsequent ipsilateral surgery and diagnostic procedures. Consider the possible effects of the use of STERITALC[®] on future diagnostic and therapeutic procedures prior to administration.

5.3 Lead Content

Lead is present in STERITALC[®] as an impurity. The main target organ for lead toxicity is the nervous system, but effects of lead exposure also include increased blood pressure, anemia, decreased sperm production, and damage to the kidneys in children and adults. Minimal risk levels of lead have not been derived for humans because clear thresholds for effects have not been identified.

Children are more sensitive to lead toxicity than adults, and no safe blood level has been determined in children. Cognitive and neurobehavioral deficits are observed in children exposed to lead. Exposure of a pregnant woman to lead may cause miscarriage, premature birth, lower birth weights and slow or impaired mental development in the child.

Administration of STERITALC[®] at the highest recommended dose of 10 grams may deliver up to 40 mcg of lead.

6. ADVERSE REACTIONS

Common adverse reactions observed with intrapleural use of various talc products are fever and pain. Other adverse reactions include dyspnea, arrhythmia, empyema, pneumonitis and acute respiratory distress syndrome (ARDS) [see *Warnings and Precautions* (5.1)]. Procedure related adverse reactions such as bleeding, hemothorax, wound infections, atelectasis and pneumonia may occur.

8. USE IN SPECIFIC POPULATIONS

8.1 Pregnancy

Risk Summary

STERITALC[®] is contraindicated for use in pregnant women because it contains lead, which can cause fetal harm and potential loss of pregnancy [see *Warnings and Precautions* (5.3)]. There are no human data on the use of STERITALC[®] in pregnant women. In an animal reproduction study, oral administration of talc in pregnant rabbits during organogenesis revealed no evidence of teratogenicity at dose up to approximately 5 times the human dose [see *Data*].

Data

Animal Data

In an embryo-fetal developmental toxicity study in rabbits, talc was administered to rabbits by oral gavage daily during the period of organogenesis at doses up to 900 mg/kg (approximately 5 times the human dose on a mg/m² basis). No significant dose-related toxicity was reported except at maternally toxic doses. In multiple animal studies, intrapleurally administered talc was not absorbed systemically.

8.2 Lactation

Risk Summary

There is no information regarding the presence of talc in human milk, the effects on the breastfed

infants, or the effects on milk production. STERITALC[®] contains lead, which is known to have adverse effects on health and development in neonates, infants and children [see *Warnings and Precautions* (5.3)]. Because of the potential for serious adverse reactions in breast-fed infants from lead content in STERITALC[®], advise lactating women not to breastfeed during treatment with STERITALC[®] and for 5 months after the final dose.

8.3 Females and Males of Reproductive Potential

Contraception

STERITALC[®] contains lead, which can cause fetal harm when administered to a pregnant woman [see *Warnings and Precautions* (5.3) and *Use in Specific Populations* (8.1)]. Advise females of reproductive potential to use effective contraception during treatment and for 5 months following the final dose of STERITALC[®].

Infertility

STERITALC[®] contains lead, which may impair fertility in males of reproductive potential [see *Warnings and Precautions* (5.3)].

8.4 Pediatric Use

Safety and effectiveness have not been established in pediatric patients. Lead is present in STERITALC[®] as an impurity [see *Warnings and Precautions* (5.3)]

11. DESCRIPTION

STERITALC[®] (talc) is a sclerosing agent for intrapleural administration. The molecular formula for talc is $\text{Mg}_3\text{Si}_4\text{O}_{10}(\text{OH})_2$. The molecular weight is 379.3 g/mole. The chemical name of talc is hydrated magnesium silicate. The talc powder contains $\geq 95\%$ of hydrated magnesium silicate; associated minerals include chlorites (hydrated aluminum and magnesium silicates), magnesite (magnesium carbonate), calcite (calcium carbonate), and dolomite (calcium and magnesium carbonate). The talc elementary sheet is composed of a layer of magnesium-oxygen/hydroxyl octahedra, sandwiched between two layers of silicon-oxygen tetrahedra. Talc is insoluble in water. STERITALC[®] is supplied as 2 grams, 3 grams, and 4 grams white or off-white to light gray, asbestos-free, sterile powder. STERITALC contains particle size-controlled talc, graded to decrease the proportion of smaller particles.

12. CLINICAL PHARMACOLOGY

12.1 Mechanism of Action

Talc instilled into the pleural cavity is thought to result in an inflammatory reaction. This reaction promotes adherence of the visceral and parietal pleura to prevent reaccumulation of pleural air or fluid.

13. NONCLINICAL TOXICOLOGY

13.1 Carcinogenesis, Mutagenesis, Impairment of Fertility

Studies on the carcinogenicity of talc have been performed using non-standard designs which prevent firm conclusions on its carcinogenicity. With single intraperitoneal administration to mice at 20 mg and observation for at least 6 months, or 4 weekly doses administered intraperitoneally at 25 mg/dose to rats with observation for at least 84 weeks, tumor incidence was not increased. In these studies the talc and its asbestos content were not characterized.

Genotoxicity was tested in cultures of rat pleural mesothelial cells (RPMC) for unscheduled DNA synthesis (UDS) and sister chromatid exchanges (SCEs). None of the talc samples (which were asbestos-free) induced enhancement of UDS or SCEs in treated cultures.

No information is available on impairment of fertility in animals by talc.

14. CLINICAL STUDIES

14.1 Malignant Pleural Effusion

The data demonstrating safety and efficacy of talc in the treatment of malignant pleural effusions are derived from the published medical literature. In these studies, greater than 1000 patients with malignant pleural effusions have been reported (with varying degrees of detail and durations of response) to have had successful pleurodesis with talc, administered either by poudrage or as a slurry via chest tube. There are published efficacy data for more than 200 patients treated with STERITALC® for malignant pleural effusion, with a success rate of approximately 89% (range 73-91%).

14.2 Pneumothorax

The data demonstrating safety and efficacy of talc in the treatment of pneumothorax are derived from the published medical literature. There are published efficacy data for more than 500 patients treated with STERITALC® for pneumothorax, some in conjunction with surgical procedures, with successful pleurodesis rates of 97-100%.

16. HOW SUPPLIED/STORAGE AND HANDLING

STERITALC®, white or off-white to light gray, asbestos-free, sterile powder is supplied as

- two grams of talc powder in a single-dose 50 mL Type III glass vial, closed with a stopper, and crimped with an aluminum cap; with 4 vials packaged in one carton.
NDC XXXX-XXXX-XX
- four grams of talc powder in a single-dose 50 mL Type III glass vial, closed with a stopper, and crimped with an aluminum cap; with 4 vials packaged in one carton.
NDC XXXX-XXXX-XX

- three grams of talc powder in a single-dose 10 mL Type I brown glass vial, closed with a stopper, and crimped with an aluminum cap; with 4 vials packaged in one carton.
NDC XXXX-XXXX-XX

Store at 20°C - 25°C (68°F - 77°F); excursions permitted between 15°C - 30°C (59°F - 86°F) [see USP Controlled Room Temperature]. Protect against sunlight.

17. PATIENT COUNSELLING INFORMATION

- Advise patients to notify their healthcare provider if new or worsening pulmonary symptoms develop [*see Warnings and Precautions (5.1)*].
- Inform patients that the lead content in STERITALC[®] can be harmful to a developing fetus. Advise females of reproductive potential to use effective contraception during treatment and for 5 months after the last dose of STERITALC[®] [*see Warnings and Precautions (5.3) and Use in Specific Populations (8.3)*].

Manufactured for: Novatech SA
Z.I. Athélia III - 1058, Voie Antiope
13705 La Ciotat CEDEX
France

By: bess pro gmbh
Gustav-Krone-Strasse 7
14167 Berlin
Germany

115x49x210 mm

STERITALC® 2g/vial
(Talc) Powder
for intrapleural administration

NDC XXXXX-222-42

NDC XXXXX-222-42

STERITALC® 2g/vial
(Talc) Powder
for intrapleural administration

4 vials
2 grams of sterile talc per vial

Refer to the Prescribing Information for dosage and preparation.
Single-dose vial. Discard unused portion.
Store at 20-25°C (68-77°F); excursions permitted between 15°C to 30°C (59°-86°F)
[see USP controlled room temperature].
Protect against sunlight.

Rx only



NDC XXXXX-222-42
STERITALC® 2g/vial
(Talc) Powder
for intrapleural administration

NDC XXXXX-222-42

STERITALC® 2g/vial
(Talc) Powder
for intrapleural administration

4 vials
2 grams of sterile talc per vial

Refer to the Prescribing Information for dosage and preparation.
Single-dose vial. Discard unused portion.
Store at 20-25°C (68-77°F); excursions permitted between 15°C to 30°C (59°-86°F)
[see USP controlled room temperature].
Protect against sunlight.

Rx only



Manufactured for:
Novartis SA
Z.I. Athalia III - 1658, Van Auloy
14117 Baille
France



By:
bess pte GmbH
Grafen-Neuhaus 7
14117 Baille
Germany

carton code - revision

NDC XXXXX-222-42

STERITALC® 2g/vial
(Talc) Powder
for intrapleural
administration

LOT: ABCDEF

Expiry: MMMYYY

115x49x210 mm



115x49x210 mm

STERITALC® 4g/vial
(Talc) Powder
for intrapleural administration

NDC XXXXX-444-44

NDC XXXXX-444-44

STERITALC® 4g/vial
(Talc) Powder
for intrapleural administration

4 vials
4 grams of sterile talc per vial

Refer to the Prescribing Information for dosage and preparation.
Single-dose vial. Discard unused portion.
Store at 20-25°C (68-77°F); excursions permitted between 15°C to 30°C (59°-86°F)
[see USP controlled room temperature].
Protect against sunlight.

Rx only



STERITALC® 4g/vial
(Talc) Powder
for intrapleural administration

NDC XXXXX-444-44

NDC XXXXX-444-44

STERITALC® 4g/vial
(Talc) Powder
for intrapleural administration

4 vials
4 grams of sterile talc per vial

Refer to the Prescribing Information for dosage and preparation.
Single-dose vial. Discard unused portion.
Store at 20-25°C (68-77°F); excursions permitted between 15°C to 30°C (59°-86°F)
[see USP controlled room temperature].
Protect against sunlight.

Rx only



Manufactured for:
Novartis SA
Z.I. Athalia III - 1658, Van Auloy
14117 Baille
France



Sy:
bess pte GmbH
Gartenstrasse 7
14117 Berlin
Germany

carton code - revision

NDC XXXXX-444-44

STERITALC® 4g/vial
(Talc) Powder
for intrapleural
administration

LOT: ABCDEF

Expiry: MMMYYY

NDC: XXXXX-222-02

STERITALC®

(Talc) Powder

for intrapleural administration

Manufactured for:

Novatech SA

Z.I. Athelia III - 1058, Voie Antiope

13705 La Ciotat CEDEX

France

By:

bess pro gmbh

Gustav-Krone-Str. 7

14167 Berlin

Germany

2g/vial

2 grams of sterile talc per vial

Refer to the Prescribing Information for dosage and preparation. Single-dose vial. Discard unused portion.

Store at 20–25°C (68–77°F);

excursions permitted between 15°C to 30°C (59°–86°F)

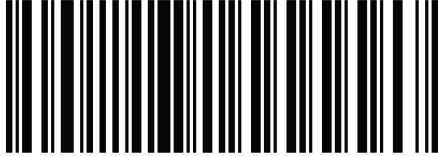
[see USP controlled Room temperature].

Protect against sunlight.

Rx only

LOT: ABCDEF

Expiry: MMMYYYY



XXXXXXXX22202

NDC: XXXXX-333-03

STERITALC®

(Talc) Powder

for intrapleural administration

Manufactured for:

Novatech SA

**Z.I. Athelia III - 1058, Voie Antiope
13705 La Ciotat CEDEX
France**

By:

**bess pro gmbh
Gustav-Krone-Str. 7
14167 Berlin
Germany**

3g/vial

3 grams of sterile talc per vial

Refer to the Prescribing Information for dosage and preparation. Single-dose vial. Discard unused portion.

Store at 20–25°C (68–77°F);

excursions permitted between 15°C to 30°C (59°–86°F)
[see USP controlled Room temperature].

Protect against sunlight.

Rx only

LOT: ABCDEF

Expiry: MMMYYYY



NDC: XXXXX-444-04

STERITALC[®]

(Talc) Powder

for intrapleural administration

Manufactured for:

Novatech SA

Z.I. Athelia III - 1058, Voie Antiope

13705 La Ciotat CEDEX

France

By:

bess pro gmbh

Gustav-Krone-Str. 7

14167 Berlin

Germany

4g/vial

4 grams of sterile talc per vial

Refer to the Prescribing Information for dosage and preparation. Single-dose vial. Discard unused portion.

Store at 20–25°C (68–77°F);

excursions permitted between 15°C to 30°C (59°–86°F)

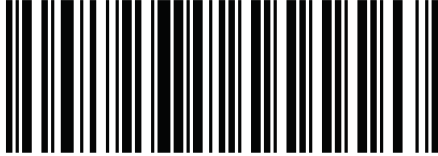
[see USP controlled Room temperature].

Protect against sunlight.

Rx only

LOT: ABCDEF

Expiry: MMMYYYY



XXXXXX44404

This is a representation of an electronic record that was signed electronically and this page is the manifestation of the electronic signature.

/s/

AMNA IBRAHIM
05/01/2017