

# GUIDELINES

to Clean, Disinfect and Sterilize ALOKA Transducers

This guideline contains cleaning, disinfecting and sterilization information for transducers compatible with current ALOKA ProSound SSD-3500, SSD-4000, SSD-Alpha 5, SSD-Alpha 6, SSD-Alpha 7 and SSD-Alpha 10 diagnostic ultrasound systems sold in the United States. Refer to User's Guide of specific transducer model for cleaning, disinfecting and sterilization of older systems and transducers not referenced on this guideline.

This guideline supersedes all previous information on cleaning, disinfecting and sterilizing ALOKA transducers.

This guideline should be used in conjunction with established reprocessing protocol of hospital, clinic or office. All disinfectants and sterilization methods listed in the "ALOKA Transducers and approved Disinfectants & Sterilants List for U.S.A." includes information that can help you choose an appropriate disinfectant solution and sterilization method that shows chemical compatibility with specific ALOKA transducers.

Disinfectants and sterilization methods listed in the "ALOKA Transducers and approved Disinfectants & Sterilants List for U.S.A." are recommended by ALOKA for compatibility with product material, not for biological effectiveness. Refer to the disinfectant label instructions for guidance on disinfection efficacy.

Reprocessing ALOKA transducers using autoclave or non-approved disinfection or sterilization method can damage transducers and voids the warranty.

### Transmissible Spongiform Encephalopathy (TSE)

If the sterile transducer cover becomes compromised during Intraoperative applications involving a patient with TSE, also known as prion diseases i.e. Creutzfeldt-Jakob Disease (CJD), TSE agents are usually resistant to disinfection and sterilization by most of the physical and chemical methods in common use for decontamination of infectious pathogens.

The World Health Organization (WHO) has developed <u>CJD infection control guidelines</u> that can be a valuable guide to infection control personnel and other health care workers involved in the care of CJD patients.

#### **Transducer Covers**

In order to minimize the risk of cross contamination, the transducer should be covered with a barrier for all endocavity scanning. American Institute of Ultrasound in Medicine (AIUM) suggests if the barriers used are condoms, these should be nonlubricated and nonmedicated. Practitioners should be aware that condoms have been shown to be less prone to leakage than commercial probe covers, have a six-fold enhanced AQL (acceptable quality level) when compared to standard examination gloves. They have an AQL equal to that of surgical gloves. User should be aware of latex-sensitivity issues and have available non-latex-containing barriers.

## Latex

FDA Medical Alert, March 29, 1991, "Allergic Reactions to Latex-Containing Medical Devices"

There have been reports of severe allergic reactions to medical devices containing latex (natural rubber). Healthcare professionals are advised to identify latex sensitive patients and to be prepared to treat allergic reactions promptly. For additional information in the U.S.A, refer to FDA Medical Alert MDA91-1.

All ALOKA transducers are latex free.

Proper and thorough cleaning and rising are the first and most important steps in the reprocessing of any reusable medical device. Without thorough cleaning and rinsing, it is not possible to achieve effective disinfection or sterilization of the device. All devices must be thoroughly cleaned, rinsed and dried before proceeding with disinfection or sterilization of the device.

The 2003 Guideline for Environmental Infection Control in Health-care Facilities (CDC, 2003) recognized three levels of disinfection. If sterilization cannot be performed, the CDC recommends high-level disinfection for semi-critical patient-care items (items that will be in contact with intact mucous membrane and do not normally penetrate body surfaces). Intermediate- or low-level disinfection is considered suitable for non-critical items that come into direct contact with the patient but normally only touch intact skin.

#### DISINFECTION or STERILIZATION?

The level of disinfection required for a device is dictated by the type of tissue it will contact during use. Dr. E. H. Spaulding devised a classification system that divide medical devices into categories based on the risk of infection involved with their use. This classification is used by the FDA and the Centers for Disease Control and Prevention to aide in determining the degree of disinfection or sterilization required for various medical devices, i.e. CDC Guideline for Hand washing and Hospital Environmental Control, Guidelines for the Prevention of Transmission of Human Immunodeficiency Virus (HIV) and Hepatitis B Virus (HBV) to Health-Care and Public-Safety Workers, and Guideline for Environmental Infection Control in Health-Care Facilities employ.

Spaulding defines three categories of medical devices and their associated level of disinfection or sterilization.

Category	Definition	Level of disinfection or sterilization
Critical	A device that enters normally sterile tissue or the vascular system.	Sterilization
Semi critical	A device that comes into contact with intact mucous membranes and does not ordinarily penetrate sterile tissue.	High-Level Disinfection
Noncritical	Devices that come in contact with intact skin but not mucous membranes.	Mid or Low-Level Disinfection

#### Spaulding Classification of Medical Devices

**Sterilization** describes a process that destroys or eliminates all forms of microbial life and is carried out in health-care facilities by physical or chemical methods.

**Disinfection** describes a process that eliminates many or all pathogenic microorganisms, except bacteria spores on inanimate object. The selective removal of microbial life is divided into three categories:

- **High-Level Disinfection** Destruction/removal of all microorganisms except bacterial spores.
- Mid-Level Disinfection Inactivation of Mycobacterium Tuberculosis, bacteria, most viruses and most fungi and some bacterial spores.
- Low-Level Disinfection Destruction of most bacteria, some viruses and some fungi. Low-level disinfection will not necessarily inactivate Mycobacterium Tuberculosis or bacterial spores.

Ultrasound transducers used for non-critical applications need only be cleaned and low-level disinfected between patient uses. Transducers used in semi-critical applications should be high-level disinfected and the use of a sheath is recommended.

This procedure is applicable to all ALOKA transducers. Cleaning and disinfection is a two step process: a cleaning step followed by a disinfection step. Cleaning is intended to remove all foreign matter (blood, tissue, protein, scanning gel, etc.) from the device. If adequate cleaning cannot be achieved, subsequent high-level disinfection or sterilization procedures are likely to be ineffective.

#### CAUTIONS:

- All transducers must be thoroughly cleaned after each use to remove all foreign matter, blood, mucous, etc. remained on transducer housing (scan head) and cable.
- Biopsy guide must be removed and cleaned separately.
- Always position the parts of transducers that must remain dry higher than the parts exposed to liquid to keep any fluid from entering non-watertight transducer housing (scan head) area or connector.
- Never immerse or rinse transducers in liquids above 60°C (140°F).
- The use of 70% isopropyl alcohol on the surface of transducer, strain relief and cable assembly is not recommended. However, the use of a soft dry cloth or gauze moistened with Ethyl alcohol to clean the transducer surface, strain relief and cable is acceptable.

### WARNINGS:

- Disconnect transducers from the ultrasound unit prior to cleaning to avoid electrical shock.
- Handle all transducers with care and do not bump, drop or subject to any type of shock.
- Use personal protective equipment, i.e. gowns, gloves and eyewear when handling any high-level disinfectant or sterilant when cleaning transducers.
- Do not rinse or expose transducer connector to any form of liquid. The only exception is when MP-2790, waterproof connector, is properly attached to MP-2790 compatible intraoperative ultrasound transducers.
- Do not immerse transducer housing (scan head) past the immersion point indicated on Figure 1-1 through Figure 3-1. As immersion point varies for each transducer, for older transducer models not referenced on this guideline, please refer to user's manual.
- Follow the instructions on the manufacturers label for the solution strength and for the duration of the immersion.
- Observe the use life, shelf life, expiration date and activation instructions of cleaning and disinfecting solution.
- Always follow the procedures that have been established by your hospital, clinic or office.

#### CLEANING:

- 1. Disconnect transducer to be cleaned and decontaminated from ultrasound unit and remove any transducer cover or biopsy guide attached to the transducer.
- 2. Use a soft dry cloth or a soft cloth lightly dampened in a mild soap or approved cleaning solution to remove any foreign matter, blood, mucous, etc. remain on transducer housing (scan head) and cable.
- 3. Rinse the contact area of transducer surface with running water and mild soap or approved cleanser up to the immersion point to ensure all organic matter and other residue are removed. The use of soft-bristled brush is acceptable on transducer housing up to immersion point but not on scanning surface.

Cautions: I Never rinse transducers in liquids above 60°C (140°F).

- Follow the manufacturer's label instructions for proper rinse procedures, including adequate rinse water volumes and duration.
- 4. Clean transducer cable, strain relief and connector with a soft cloth moistened with Ethyl alcohol. The use of 70% isopropyl alcohol on the surface of transducer, strain relief and cable assembly is not recommended.
- 5. Wipe the transducer with a clean dry soft cloth or with a clean soft cloth dampen with water to remove soap residue then dry transducer with a clean dry soft cloth.
- 6. Visually inspect transducer housing (scan head) and cable to ensure all foreign matter, blood, mucous, etc. are removed and thoroughly dried.

This guideline is applicable to ALOKA transducers that comes into contact with intact mucous membranes and does not ordinarily penetrate sterile tissue which requires High-Level Disinfection, i.e. Transvaginal, Transrectal and Transesophageal. If any of these transducers that enter normally sterile tissue or the vascular system, the sterilization guideline outlined in the next section must be followed.

#### CAUTIONS:

- Use only disinfectants listed on "ALOKA Transducers and approved Disinfectants & Sterilants List for U.S.A.". Using non-approved disinfectants and sterilant, incorrect solution strengths, immersing transducer past immersion point or immersing longer than label instruction can damage or discolor the transducer and will void the warranty.
- Always position the parts of transducers that must remain dry higher than the parts exposed to liquid to keep any fluid from entering non-watertight transducer housing (scan head) area or connector.
- Never immerse or rinse transducers in liquids above 60°C (140°F).
- The use of 70% isopropyl alcohol on surface of transducers, strain relief and cable assembly is not recommended. However, the use of a soft dry cloth or gauze moistened with Ethyl alcohol to clean the transducer surface, strain relief and cable is acceptable.

#### WARNINGS:

- Disconnect transducers from the ultrasound unit prior to cleaning to avoid electrical shock.
- Handle all transducers with care and do not bump, drop or subject to any type of shock.
- Use personal protective equipment, i.e. gowns, gloves and eyewear when handling any high-level disinfectant or sterilant when cleaning transducers.
- Never expose transducer connector to any form of liquid.
- Do not immerse transducer housing (scan head) past the immersion point indicated on Figure 1-1 through Figure 3-1. As immersion point varies for each transducer, for older transducer models not referenced on this guideline, please refer to user's manual.
- Follow the instructions on the manufacturers label for the solution strength and for the duration of the immersion.
- Limit the time that transducers are soaked in the disinfectant solution to a minimum time recommended by the manufacturer of disinfectant solution.
- Observe the use life, shelf life, expiration date and activation instructions of cleaning and disinfecting solution
- Always follow the procedures that have been established by your hospital, clinic or office.

#### DIFINFECTION:

All transducers must be thoroughly cleaned, rinsed and dried before proceeding with disinfection or sterilization of the device. Thorough cleaning and rising are the first and most important steps in the reprocessing of any reusable medical device. Without thorough cleaning and rinsing, it is not possible to achieve effective disinfection or sterilization of the device.

- 1. Ensure that the transducer has been thoroughly cleaned, rinsed and dried according to the process described in the Cleaning and Decontamination section of this guideline.
- 2. Immerse the transducer housing (scan head) into approved disinfectant up to immersion point as shown in the appropriate figure for your transducer (Figure 2-1 through Figure 3-1).
  - - Follow the manufacturer's labels for use life, shelf life, expiration date specifications and activation instructions.
- 3. Follow the instructions for use on manufacturer's disinfectant label for the duration of immersion time. Do not immerse longer than manufacturer's label instruction.
  - Note: 
     Limit the time that transducers are soaked in the disinfectant solution to a minimum time recommended by the manufacturer of disinfectant solution.
- 4. Once removed from disinfectant solution, the transducer must be thoroughly rinsed with clean water up to the point of immersion to remove any disinfectant residue and then air dry or towel dry with a clean dry cloth.
  - Cautions: The Never rinse transducers in liquids above 60°C (140°F).
    - Follow the manufacturer's label instructions for proper rinse procedures, including adequate rinse water volumes and duration.
- 5. Inspect transducer for any signs of damage, i.e. crack in the housing, damaged scanning surface or cable cut, etc. Discontinue the use of transducer if there is defect or damage noted during the inspection and contact customer service representative.

#### CAUTIONS:

- Use only sterilization methods listed on "ALOKA Transducers approved Disinfectants & Sterilant List for U.S.A.". Using a non-approved sterilization method can damage the transducer and will void the warranty.
- **Do not autoclave (steam sterilize)** transducers. Autoclaving will severely damage the transducer and will void the warranty.

#### WARNINGS:

- Disconnect transducers from the ultrasound unit prior to cleaning to avoid electrical shock.
- Handle all transducers with care and do not bump, drop or subject to any type of shock.
- Use personal protective equipment, i.e. gowns, gloves and eyewear when handling any high-level disinfectant or sterilant and cleaning transducers.
- Never expose transducer connector to any form of liquid.
- Do not immerse transducer housing (scan head) past the immersion point indicated on Figure 1-1 through Figure 3-1. As immersion point varies for each transducer, for older transducer models not referenced on this guideline, please refer to user's manual.
- If the sterile transducer cover becomes compromised during Intraoperative applications involving a patient with Transmissible Spongiform Encephalopathy (TSE), also known as prion diseases i.e. Creutzfeldt-Jakob Disease (CJD), a transducer may need to be destroyed as TSE agents are usually resistant to disinfection and sterilization by most of the physical and chemical methods in common use for decontamination of infectious pathogens.

The World Health Organization (WHO) has developed <u>CJD infection control</u> guidelines that can be a valuable guide to infection control personnel and other health care workers involved in the care of CJD patients.

- Follow the instructions on the manufacturers label for the solution strength and for the duration of the immersion.
- Limit the time that transducers are soaked in the disinfectant solution to a minimum time recommended by the manufacturer of disinfectant solution.
- Always follow the procedures that have been established by your hospital, clinic or office.

#### STERILIZATION:

All transducers must be thoroughly cleaned, rinsed and dried according to the process described in the Cleaning and Decontamination section of this guideline before proceeding with sterilization of the device. Thorough cleaning and rising are the first and most important steps in the reprocessing of any reusable medical device. Without thorough cleaning and rinsing, it is not possible to achieve effective disinfection or sterilization of the device.

# Ethylene Oxide (EtO) Gas Sterilization

ALOKA transducers compatible with EtO on "ALOKA Transducers approved Disinfectants & Sterilant List for U.S.A." can be sterilized by EtO gas and aerated within the parameters given in Table 1 below. When performing EtO gas sterilization, follow established hospital, clinic or office protocol and the sterilization equipment manufacturer's label instructions.

Warning: All transducers must be properly aerated following EtO gas sterilization to remove toxic ethylene oxide residuals.

Process	Concentration	Exposure time at 37° C (99° F)	Exposure time at 38° C (100° F)	Exposure time at 55° C (130° F)	Relative humidity
100% EO	880 mg/L	4 hrs		1 hr	50% to 80%
100% EO	740  mg/L		4hrs. 30 min.	1 hr	80%
100% EO	735 mg/L	4 hrs		1 hr	50% to 80%
100% EO	725 mg/L	3 hrs		1 hr	30% to 80%

Table 1 – Parameters for EO sterilization cycles in health care facilities (AAMI TIR12:2004)

Aeration: 12 hours at 122° F, or 5 days by air dry at 30% - 85% humidity, 13.25 hPa – 2025 hPa at 10° C - 60° C (50° F - 140° F)

Specific sterilization questions should be made directly to EtO manufacturers.

# STERRAD<sup>®</sup> Sterilization

ALOKA transducers compatible with STERRAD<sup>®</sup> 50, 100, 100S, 200, NX<sup>TM</sup> and 100NX<sup>TM</sup> on "ALOKA Transducers approved Disinfectants & Sterilant List for U.S.A." can be sterilized using models indicated above. Follow the manufacturer's instructions for general reprocessing instructions, including proper cleaning, drying and packaging information prior to reprocessing any medical device in STERRAD<sup>®</sup> 50, 100, 100S, 200, NX<sup>TM</sup> or 100NX<sup>TM</sup> systems.

Specific sterilization questions should be made directly to Advanced Sterilization Products by calling 1-888-STERRAD.

# STERIS Amsco<sup>®</sup> V-PRO<sup>™</sup> 1 Sterilization

ALOKA transducers compatible with  $Amsco^{\text{®}}$  V-PRO<sup>TM</sup> 1 on "ALOKA Transducers approved Disinfectants & Sterilant List for U.S.A." can be sterilized using V-PRO<sup>TM</sup> 1. Follow the manufacturer's instructions for general reprocessing instructions, including proper cleaning, drying and packaging information prior to reprocessing any medical device in  $Amsco^{\text{®}}$  V-PRO<sup>TM</sup> 1 systems. Specific sterilization questions should be made directly to STERIS Corporation by calling 1-440-354-2600.

#### **Immersion Method**

#### STERIS® System 1 & System 1E Sterilization

ALOKA transducers compatible with STERIS<sup>®</sup> System 1 (SS1) and System 1E (SS1E) on "ALOKA Transducers approved Disinfectants & Sterilant List for U.S.A." can be sterilized using SS1 and SS1E.

Follow the instructions provided with the STERIS<sup>®</sup> System 1 for sterilization processing. Specific sterilization questions should be made directly to STERIS Corporation by calling 1-440-354-2600.

- - Inspect the rubber gasket (seal) around MP-2790 waterproof cover for any signs of damage. Do not reprocess the transducer using the STERIS<sup>®</sup> System 1 or System 1E if there is any sign of damage.

#### Soaking Method

- 1. Immerse the transducer housing (scan head) into approved sterilant up to immersion point as shown in the appropriate figure for your transducer (Figure 2-1 through Figure 3-1).
  - - Follow the manufacturer's labels for use life, shelf life, expiration date specifications and activation instructions.
    - \* Limit the time that transducers are soaked in the disinfectant solution to a
- 2. Follow the instructions for use on manufacturer's disinfectant label for the duration of immersion time. Do not immerse longer than manufacturer's label instruction.
- 3. Once removed from disinfectant solution, the transducer must be thoroughly rinsed with sterile water up to the point of immersion to remove any disinfectant residue and then air dry or towel dry with a clean dry cloth.

**Caution:** • Never rinse transducers in liquids above 60°C (140°F).

- Follow the manufacturer's label instructions for proper rinse procedures, including adequate rinse water volumes and duration.
- 4. Inspect transducer for any signs of damage, i.e. crack in the housing, damaged scanning surface or cable cut, etc. Discontinue the use of transducer if there is defect or damage noted during the inspection and contact customer service representative.

# References

Refer to following reference materials for additional information:

- CDC Guideline for Disinfection and Sterilization in Healthcare Facilities, 2008
- World Health Organization Infection Control Guidelines for Transmissible Spongiform Encephalopathies
- FDA, Labeling Reusable Medical Devices for Reprocessing in Healthcare Facilities, April 1996
- AAMI TIR-12:2004, Designing, testing, and labeling reusable medical devices for reprocessing in healthcare facilities: A guide for medical device manufacturers
- AIUM Guidelines for Cleaning and Preparing Endocavity Ultrasound Transducer between Patients.
- "Allergic Reactions to Latex-Containing Medical Devices" FDA Department of Health and Human Services. FDA Medical Alert. March 29, 1991.
- FDA-Cleared Sterilants and High Level Disinfectants with General Claims for Processing Reusable Medical and Dental Devices. March, 2009,

Immersion point of Transdermal Transducers







#### **Immersion point of Transdermal Transducers**



Figure 1-4: Immersion point of UST-9128







Figure 1-6: Immersion point of UST-5524-7.5 & UST-5548



14

# **Immersion point of Transdermal Transducers**



Figure 1-7: Immersion point of UST-5710-7.5 & UST-5712

Water or chemical solution

Immersion point of Intracorporeal (Endocavity) Transducers

# Figure 2-1: Immersion point of UST-675P, UST-676P, UST-9112-5, UST-9118, UST-9124 & UST-984-5







Immersion point of Intracorporeal (Endocavity) Transducers



Figure 2-3: Immersion point of ASU-67

Figure 2-4: Immersion point of UST-672-5/7.5 & UST-678



Immersion point of Intraoperative Transducers

Figure 3-1: Immersion point of UST-533, UST-534, UST-536, UST-547, UST-579T-7.5, UST-534T-7.5, UST-5268P-5, UST-52114P, UST-5526L-7.5, UST-5536-7.5, UST-5542, UST-5543, UST-5550, UST-5713T, UST-987-7.5, UST-9104-5, UST-9120, UST-9132I, UST-9132T, UST-995-7.5, UST-9133, UST-9146I, UST-9146T, & UST-MC11-8731



	ALOKA Tra	nsducers and	approved Dis	infectants &	Sterilants Li	st for U.S.A.	(Rev. March	<b>4,</b> 2011)	
MODEL	ENZOL <sup>TH</sup>	T-SPRAY <sup>TM</sup>	T-SPRAY II <sup>TH</sup>	CIDEX® Solution 2.4%	CIDEX <sup>®</sup> OPA Solution 0.55%	RESERT <sup>™</sup> XL HLD	SPORICIDIN <sup>®</sup>	WAVICIDE <sup>®</sup> -01	ACECIDE
	Presoak - Cleanser	Disinfectant	Disinfectant	HL Disinfectant	HL Disinfectant	HL Disinfectant	Disinfectant - Sterilant	HLDisinfectant	HL Disinfectant
ASU-1000C-3.5	ок	ок	ок	ок	0	0	0	0	ОК
ASU-1001	ок	ок	OK	OK	ок	0	OK	ок	ОК
ASU-1002	ОК	ОК	OK	ок	ОК	0	ок	ОК	ОК
ASU-1003	ок	ок	OK	OK	ок	0	ок	ок	ОК
ASU-1009	OK	ок	OK	ок	ОК	0	ок	ОК	ОК
ASU-1010	ок	ок	ок	ок	ок	ок	ок	ок	ок
ASU-1011	OK	ок	ок	ок	ОК	ОК	ок	ОК	ОК
ASU-1012	OK	OK	OK	OK	ОК	OK	ОК	OK	ОК
ASU-1013	ок	ок	ок	ок	ок	ОК	ок	ок	ОК
ASU-36WL-10	OK	OK	OK	OK	0	0	0	0	OK
ASU-67	OK	ок	OK	OK	ОК	0	OK	ОК	9
UST-2265-2	OK	ок	OK	ок	0	0	OK	ОК	ОК
UST-2266-5	OK	ок	OK	ок	0	0	ок	ОК	ОК
UST-660-7.5	OK	ОК	OK	OK	ОК	OK	ОК	ОК	ОК
UST-670P-5	OK	OK	ок	ок	ок	OK	ок	ок	OK
UST-672-5/7.5	OK	ок	OK	ок	ОК	ОК	ок	ОК	ОК
UST-675P	OK	OK	ок	ок	ок	0	ок	ОК	ОК
UST-676LP	OK	ОК	OK	OK	ОК	0	OK	ОК	ОК
UST-676P	OK	ок	OK	ок	ОК	0	ок	ОК	ОК
UST-677P	ок	ок	ок	ок	ок	0	ок	ок	ОК
UST-678	OK	OK	OK	OK	ОК	OK	ОК	ОК	ОК
UST-533	OK	ок	ок	OK	ок	ок	ок	ок	ок
UST-534	OK	ок	OK	ок	ОК	ОК	OK	ОК	ОК
UST-536	OK	OK	OK	OK	ОК	OK	ОК	OK	OK
UST-547	OK	OK	OK	OK	ОК	OK	ок	ОК	ОК
UST-586-5	OK	0	0	ок	0	0	0	0	ОК
UST-5871-5	ок	0	0	ок	ОК	OK	0	0	ОК
UST-587T-5	OK	0	0	OK	ОК	OK	0	0	ОК
UST-588U-5	ок	0	0	ок	ок	ок	0	0	ок
UST-556I-7.5	OK	ок	ок	OK	ок	ОК	ок	ОК	ОК
UST-556T-7.5	OK	ок	ок	OK	ок	ОК	ок	ок	ОК
UST-556TU-7.5	OK	ок	ок	ок	ок	ОК	ок	ок	ОК
UST-567	OK	OK	OK	ок	ОК	OK	ок	OK	ОК
UST-568	OK	ок	OK	ок	ОК	ОК	OK	ОК	ОК
UST-5011U-3.5	OK	0	0	ок	0	0	0	0	ОК
UST-5024N-3.5	OK	ок	OK	OK	ок	0	ОК	ОК	ОК
UST-5037P-3.5	OK	OK	ок	OK	ок	0	ок	ок	ОК
UST-5039P-3.5	OK	ок	OK	OK	ок	ОК	OK	ОК	ОК
UST-5043P-3.5	OK	OK	OK	OK	ок	OK	OK	OK	OK
UST-5045P-3.5	ок	ок	OK	OK	ок	ок	OK	ок	OK
UST-5046-3.5	OK	OK	OK	ок	ОК	0	0	0	OK
UST-5047-5	OK	OK	ок	ок	ок	0	0	0	OK
UST-52101	OK	0	0	OK	0	0	0	0	ОК
UST-52104	ок	ок	ок	OK	ок	ок	0	ок	ок
UST-52105	OK	OK	OK	OK	ок	0	OK	ок	ОК
UST-52108	ок	ок	ок	OK	ок	0	OK	ок	ОК
UST-52109	OK	OK	OK	OK	ок	OK	OK	ОК	OK
UST-52110S	OK	OK	OK	OK	ок	OK	0	ок	OK
UST-52111S	ок	ок	ок	OK	ок	ок	0	ок	ОК
UST-52114P	OK	OK	OK	OK	ОК	OK	ок	ОК	OK
UST-52116	OK	OK	ок	ок	ок	OK	0	OK	OK
UST-52119S	OK	OK	OK	OK	OK	OK	0	OK	OK
UST-52120S	OK	ок	OK	OK	ОК	OK	0	ОК	ОК
UST-52121S	ок	ок	OK	OK	ОК	ОК	0	ОК	ОК
UST-52124	ок	ок	ок	ок	ок	0	ок	ок	ОК
UST-5268P-5	ок	ок	OK	OK	ок	ок	ок	ок	ОК
UST-5271S-5	ок	ок	ок	ок	ок	0	0	ок	ок
UST-5276-5	ок	ок	ок	ок	ок	0	ок	ок	ОК
UST-5280-5	ок	ок	ок	OK	ок	OK	0	ок	ок
UST-5281-5	ок	ок	OK	OK	ок	0	OK	ок	ОК
UST-5284-2.5	ок	ОК	OK	OK	ок	0	ок	ОК	ОК
UST-5285-3.5	ок	ок	OK	OK	ок	0	ок	ок	ок
UST-5286-2.5	ок	ок	ок	ок	ок	0	ок	ок	ок
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MODEL	ENZOL™	T-SPRAY <sup>TH</sup>	T-SPRAY II <sup>TH</sup>	CIDEX® Solution 2.4%	CIDEX <sup>®</sup> OPA Solution 0.55%	RESERT <sup>™</sup> XL HLD	SPORICIDIN <sup>®</sup>	WAVICIDE <sup>®</sup> -01	ACECIDE
	Presoak - Cleanser	Disinfectant	Disinfectant	HL Disinfectant	HL Disinfectant	HL Disinfectant	Disinfectant - Sterilant	HLDisinfectant - Sterilant	HL Disinfectant - Sterilant
UST-5287-3.5	ок	ок	OK	ок	ок	0	£\$K	ок	OK
UST-5290-5	ок	ок	ок	ок	ок	ок	0	ок	ок
UST-5293-5	ок	ок	OK	ок	ок	ок	0	ок	ок
UST-5294-5	ок	ок	ок	ок	ок	0	OK	ок	ок
UST-5296	ок	ок	ок	ок	0	0	OK	ок	ок
UST-5297	ок	ок	OK	ок	ок	0	ок	ок	ОК
UST-5298	ок	OK	OK	ок	ок	0	ок	ок	ОК
UST-5299	ок	OK	OK	ок	OK	0	OK	OK	OK
UST-5410	ок	OK	OK	ок	OK	0	OK	OK	OK
UST-5410H	OK	OK	OK	ок	ок	0	ок	OK	ОК
UST-5411	ок	ок	ок	ок	ок	ок	OK	ок	ок
UST-5412	ок	ок	OK	ок	ок	0	OK	OK	ок
UST-5413	ок	ок	ок	ок	ок	0	OK	ок	ок
UST-5415	ок	OK	OK	ок	ок	0	OK	OK	OK
UST-5512U-7.5	OK	OK	OK	OK	ок	ок	ок	OK	OK
UST-5524-5	ок	ок	ок	ок	ок	0	OK	ок	ок
UST-5524-7.5	OK	OK	OK	OK	OK	0	OK	OK	ОК
UST-5524-LAP	ок	ок	OK	ок	ок	0	ок	OK	ОК
UST-5526L-7.5	OK	OK	OK	OK	OK	OK	OK	OK	OK
UST-5531	OK	OK	OK	OK	OK	OK	ок	OK	OK
UST-5534T-7.5	ок	OK	OK	OK	ок	OK	OK	ок	ОК
UST-5536-7.5	OK	ок	OK	ок	ок	0	0	ок	ОК
UST-5539-7.5	ок	ок	ок	ок	ок	0	ок	OK	ОК
UST-5540P-7.5	OK	OK	OK	OK	OK	ок	ок	OK	OK
UST-5542	OK	OK	OK	ок	OK	ок	OK	OK	OK
UST-5543	OK	OK	OK	OK	OK	OK	OK	OK	OK
UST-5545	OK	OK	OK	OK	OK	0	OK	OK	OK
UST-5546	OK	OK	OK	ок	ОК	0	OK	OK	OK
UST-5548	OK	ок	OK	ок	ок	0	OK	ок	ОК
UST-5550	OK	OK	OK	ок	ок	0	ок	OK	OK
UST-5710-7.5	ок	ОК	OK	ок	ОК	0	OK	OK	ОК
UST-5711-7.5	OK	OK	OK	ок	ОК	0	OK	OK	ОК
UST-5712	OK	OK	OK	OK	OK	0	OK	OK	OK
UST-5713T	OK	ок	OK	ок	ок	ок	ок	ок	ОК
UST-579T-7.5	ок	OK	OK	OK	ок	OK	OK	OK	ОК
UST-5818-5	ок	ок	ок	ок	ок	0	0	0	ОК
UST-5819T-5	ок	OK	OK	ок	ок	ок	OK	ок	ОК
UST-5820-5	OK	0	0	ок	ок	ок	0	0	ОК
UST-5821-7.5	OK	0	0	ок	ок	ок	0	0	ОК
UST-932-7.5	ок	ОК	OK	ок	ок	ок	OK	OK	ОК
UST-934N-3.5	OK	OK	OK	OK	ок	0	0	0	ОК
UST-935N-5	ок	ОК	OK	ок	ок	ок	0	0	ОК
UST-944B-3.5	ок	ок	OK	ок	0	ок	OK	ок	ОК
UST-945B-5	ок	ок	ок	ок	ок	ок	OK	ок	ОК
UST-974-5	OK	OK	OK	OK	ок	ок	OK	OK	ОК
UST-978-3.5	ок	ок	ок	ок	ок	0	ок	ок	ОК
UST-979-3.5	ок	OK	OK	OK	0	0	ок	OK	ОК
UST-981-5	ок	OK	OK	ок	OK	ок	OK	ок	ОК
UST-984-5	ок	ОК	OK	ок	ок	ОК	ок	OK	ОК
UST-987-7.5	ок	ок	OK	OK	OK	OK	ок	ок	ок
UST-990-5	OK	ОК	OK	OK	OK	0	ок	OK	ОК
UST-995-7.5	ок	ок	ок	ок	ок	ок	OK	ок	ОК
UST-9101-7.5	ок	ок	OK	ок	ок	0	ок	ок	ок
UST-9102-3.5	OK	OK	OK	OK	0	0	OK	OK	ОК
UST-9102U-3.5	ок	ОК	OK	ок	0	OK	OK	OK	ОК
UST-9103-5	ок	ок	ок	ок	OK	0	OK	ок	ок
UST-9104-5	ок	ОК	OK	ок	ок	OK	ок	OK	ОК
UST-9111-5	ок	ок	ок	ок	ок	OK	ОК	ок	ок
UST-9112-5	ок	ок	OK	ок	ок	OK	OK	ок	ок
UST-9113P-3.5	ок	ок	ок	ок	ок	OK	ок	ок	ок
UST-9114-3.5	OK	OK	OK	OK	OK	0	OK	OK	ОК
UST-9115-5	ок	ок	ок	ок	ок	0	ок	ок	ОК
UST-9116P-5	OK	OK	OK	OK	OK	OK	OK	OK	OK
				2.11		- ON		2.11	

ALOKA Transducers and approved Disinfectants & Sterilants List for U.S.A. (Rev. March 4, 2011)												
MODEL	ENZOL <sup>™</sup>	T-SPRAY™	T-SPRAY II <sup>TH</sup>	CIDEX® Solution 2.4%	CIDEX <sup>®</sup> OPA Solution 0.55%	RESERT <sup>TH</sup> XL HLD	SPORICIDIN <sup>®</sup>	WAVICIDE <sup>®</sup> -01	ACECIDE			
	Presoak - Cleanser	Disinfectant	Disinfectant	HL Disinfectant	HL Disinfectant	HL Disinfectant	Dicinfectant - Sterilant	HLDisinfectant - Sterilant	HL Disinfectant - Sterilant			
UST-9118	OK	ок	OK	ок	ОК	®K.	OK	ОК	OK			
UST-9119	OK	ок	OK	ок	OK	0	OK	OK	OK			
UST-9120	ок	OK	OK	ок	ОК	ок	OK	ОК	OK			
UST-9121	OK	ок	OK	ок	OK	0	OK	OK	OK			
UST-9123	ок	ок	ок	ок	ок	0	OK	ок	OK			
UST-9124	ок	ОК	OK	ок	ОК	0	ок	ОК	ОК			
UST-9125-7.5	OK	ок	OK	ок	OK	ок	OK	OK	OK			
UST-9126	OK	OK	OK	ок	OK	0	OK	ОК	ОК			
UST-9127	OK	ок	OK	ок	OK	0	OK	OK	OK			
UST-9128	OK	OK	OK	ок	0	0	OK	ОК	ОК			
UST-9130	OK	ок	OK	ок	ок	0	OK	OK	OK			
UST-9132I	ок	OK	OK	ок	ОК	ок	OK	ОК	ОК			
UST-9132T	ок	ОК	OK	ок	ОК	OK	ок	ОК	ОК			
UST-9133	ок	ок	OK	OK	ок	OK	OK	OK	OK			
UST-9135P	ок	ОК	OK	ок	ОК	OK	ок	ОК	ОК			
UST-9136	OK	ок	OK	ок	OK	ок	OK	OK	OK			
UST-9136U	OK	OK	OK	ок	OK	OK	OK	OK	OK			
UST-9137	OK	ок	OK	ок	ок	0	OK	OK	OK			
UST-9144-LAP	OK	OK	OK	ок	OK	0	OK	ОК	OK			
UST-9146I	OK	ок	OK	ок	ок	OK	ок	ок	OK			
UST-9146T	ок	ОК	OK	ОК	OK	ок	OK	OK	OK			
UST-9147	OK	0	0	OK	OK	OK	0	0	0			
UST-MC11-8731	OK	OK	OK	ок	ОК	OK	OK	OK	OK			

ALO	SA Transauce	STERRAD <sup>®</sup>	STERRAD <sup>®</sup>	STERIS Amaco	STERIS	STERIS	2011	
MODEL	EtO	60, 100, 1008,	NX, 100NX	V-PRO1 <sup>™</sup>	System 1 <sup>®</sup>	System 1E <sup>TM</sup>	SPOROX'"	AUTOCLAVE
	Sterllant	Sterllant	Sterllant	Sterllant	Liquid Sterilant	Liquid Sterilant	HL Disinfectant - Sterilant	Steam Sterilization
ASU-1000C-3.5	ок	0	0	0	0	0	0	0
ASU-1001	0	0	0	0	0	0	0	0
ASU-1002	0	0	0	0	0	0	0	0
ASU-1003	0	0	0	0	0	0	0	0
ASU-1009	0	0	0	0	0	0	0	0
ASU-1010	ок	0	0	0	0	0	0	0
ASU-1011	OK	0	0	0	0	0	0	0
ASU-1012	OK	0	0	0	0	0	0	0
ASU-1013	0	0	0	0	0	0	0	0
ASU-36WL-10	OK	0	0	0	0	0	0	0
ASU-67	ок	0	0	0	0	0	0	0
UST-2265-2	ОК	OK	OK	ок	0	0	0	0
UST-2266-5	ОК	OK	OK	ок	0	0	0	0
UST-660-7.5	OK	0	0	0	0	0	0	0
UST-670P-5	ОК	from M00621	from M00621	from: M00621	0	0	0	0
UST-672-5/7.5	OK	from M00271	from M00271	from M00271	0	0	0	0
UST-675P	ОК	OK	ок	ок	0	0	0	0
UST-676LP	ОК	OK	ок	ок	0	0	0	0
UST-676P	ок	OK	ок	ок	0	0	0	0
UST-677P	ок	OK	ок	ок	0	0	0	0
UST-678	ок	OK	OK	ок	0	0	0	0
UST-533	OK	OK	OK	OK	0	0	0	0
UST-534	OK	OK	OK	OK	õ	õ	0	õ
UST-536	OK	OK	OK	OK	from M00305	from M0D305	Ň	Ň
UST-547	OK	OK	OK	OK	0	0	õ	õ
UST-586-5	OK	OK	OK	OK	õ	Ň	õ	Ň
UST-5871-5	OK	OK	OK	OK	õ	õ	õ	Ň
UST-587T-5	OK	OK	OK	OK	ő	ő	ő	Ň
UST-588U-5	OK	OK	OK	OK	ő	Ň	õ	Ň
UST-556L7 5	OK	6	6	6	ő	0	ő	Ň
UST-556T-7.5	OK		0		ő	ő	0	ő
UST-556TU-7.5	OK	6	8	6	6	ő	0	9
UST-567	OK	OK	OK	OK		ő		ő
1107 500	OK	OK	OK	OK	6			
UST-300	OK	OK	OK	OK	0		0	
UST-5024N-3.5	OK	<u> </u>	OK OK	OK OK	8	8	8	8
UST 5024N-3.5	OK	6mm M00201	6.mm M00201	Aver M00201	0	0	0	
UST-5029P-2.5	OK	from M00161	from M00161	from M00161				
UST-JUSSF-3.5	OK				0	8	8	0
UST-3043P-3.3	OK	6mm M00521	6mm M00521	6 mm M00521	0	0	0	0
UST-3043P-3.3	OK	Jroin M00321	Jroin M00521	Jram: M00521	8	8	8	8
051-5046-3.5	OK	0	0	0	0	0	0	0
UST-5047-5	OK	0	0	0	0	8	8	8
051-52101	OK	0	8	0	0	0	0	0
UST-52104	ок	0	0	0	0	0	0	0
UST-52105	0	S	0	ок	0	ø	0	0
UST-52108	ОК	OK	OK	ок	0	0	0	0
UST-52109	OK	OK	OK	OK	ø	0	0	0
UST-52110S	ОК	0	\$	0	0	0	0	0
UST-52111S	ок	0	0	0	0	0	0	0
UST-52114P	ок	ок	ок	ок	0	0	0	0
UST-52116	ок	0	0	0	0	0	0	0
UST-52119S	ок	0	0	0	0	0	0	0
UST-52120S	ок	0	0	0	ок	ок	0	0
UST-52121S	ок	0	0	0	ок	OK	0	0
UST-52124	0	ок	0	OK	0	0	0	0
UST-5268P-5	ок	from M00151	from M00151	from: M00151	from 20034642	from 20034642	0	0
UST-5271S-5	ок	0	0	0	0	0	0	0
UST-5276-5	ок	ок	ок	ок	0	0	0	0
UST-5280-5	ок	0	0	0	0	0	0	0
UST-5281-5	ок	0	0	0	0	0	0	0
UST-5284-2.5	OK	from M00264	from M00264	from M00264	0	0	0	0
	OK	from M00264	from M00264	from M00264	8	8	8	8
UST-5285-3.5		Junit modeo4	1.000		<b>v</b>		•	•
UST-5285-3.5 UST-5286-2.5	OK	from M00694	from M00694	from M00694	õ	ő	õ	ő

ALOK	KA Transduce	rs and approv	ed Disinfect	ants & Sterila	ants List for l	I.S.A. (Rev. N	March 4, 2011	)
MODEL	EtO	STERRAD <sup>®</sup>	STERRAD®	STERIS Amsco	STERIS	STERIS	SPOROX <sup>TH</sup>	AUTOCLAVE
	Sterilant	Sterilant	Sterilant	Sterilant	Liquid Sterilant	Liquid Sterilant	HL Disinfectant	Steam
LIST-5287-3 5	OK	from MD484	from #000484	from <b>80</b> 01484		6	- Sterilant	Sterilization
UST-5290-5	OK	ji cini nga vi ci v	S S		6	6	6	9
UST-5293-5	OK	8	8	0	6	6		9
UST-5294-5	OK	from M00236	from M00236	from M00236	6	ő		0
UST-5296	OK	OK	OK	OK	6		6	6
UST-5297	OK	OK	OK	OK		ő		0
UST-5298	OK	OK	OK	OK	6	8	ő	8
UST-5299	OK	OK	OK	OK	ő	ő	ő	Ň
UST-5410	OK	OK	OK	OK	ő	ő	ő	Ň
UST-5410H	OK	OK	OK	OK	õ	õ	õ	Ň
UST-5411	OK	8	8	0	õ	õ	Ň	Ň
UST-5412	ОК	ок	OK	OK	õ	õ	õ	0
UST-5413	OK	OK	OK	OK	ő	õ	õ	õ
UST-5415	0	ок	OK	0	0	0	0	0
UST-5512U-7.5	ок	0	0	0	0	0	0	0
UST-5524-5	ок	ок	ок	ок	0	0	0	0
UST-5524-7.5	OK	OK	OK	OK	0	0	0	0
UST-5524-LAP	0	OK	OK	TBD	OK	OK	<u>o</u>	0
UST-5526L-7.5	OK	OK	OK	0	0	0	0	0
UST-5531	OK	OK	0	OK	0	0	0	0
UST-5534T-7.5	ок	from M00181	from M00181	from M00181	0	0	0	0
UST-5536-7.5	OK	from M00756	from M00756	from M00756	from M01532	from M01532	õ	0
UST-5539-7.5	ок	from M00884	from M00884	from M00884	0	0	0	0
UST-5540P-7.5	OK	ОК	ок	OK	0	0	0	0
UST-5542	ок	from M00554	from M00554	from M00554	0	0	0	0
UST-5543	OK	ОК	ок	ок	0	0	0	0
UST-5545	OK	OK	OK	OK	0	0	0	0
UST-5546	ок	ок	ок	ок	0	0	0	0
UST-5548	ок	ок	ок	ок	0	0	0	0
UST-5550	ок	ок	ок	ок	from M00219	from M00219	0	0
UST-5710-7.5	ок	from M02301	from M02301	from M02301	0	0	0	0
UST-5711-7.5	ок	0	0	0	0	0	0	0
UST-5712	ок	OK	OK	OK	0	0	0	0
UST-5713T	ок	ок	ок	ок	from: M00553	from M00553	0	0
UST-579T-7.5	ОК	from M00301	from M00301	from: M00301	from 20034654	from 20034654	0	0
UST-5818-5	ОК	0	0	0	0	0	0	0
UST-5819T-5	ОК	from M00104	from M00104	from M00104	0	0	0	0
UST-5820-5	ок	0	0	0	0	0	0	0
UST-5821-7.5	ОК	0	0	ок	0	0	0	0
UST-932-7.5	ок	0	0	0	0	ø	0	0
UST-934N-3.5	ок	0	0	0	0	0	0	0
UST-935N-5	ок	0	0	0	0	0	0	0
UST-944B-3.5	ок	0	0	0	0	0	0	0
UST-945B-5	ок	0	0	0	0	0	0	0
UST-974-5	ок	0	0	0	0	0	0	0
UST-978-3.5	ок	ок	ок	ок	0	0	0	0
UST-979-3.5	ок	0	0	0	0	0	0	0
UST-981-5	ок	from M01301	from M01301	from: M01301	0	0	0	0
UST-984-5	ок	from M01301	from M01301	from M01301	0	0	0	0
UST-987-7.5	ок	from M00581	from M00581	from M00581	0	0	0	0
UST-990-5	ок	ок	ок	ок	0	0	0	0
UST-995-7.5	ок	from M00201	from M00201	from M00201	from M01029	from M01029	0	0
UST-9101-7.5	ок	ок	ок	ок	0	0	0	0
UST-9102-3.5	ок	0	0	0	0	0	0	0
UST-9102U-3.5	ок	0	0	0	0	0	0	0
UST-9103-5	ок	0	0	0	©	0	0	0
UST-9104-5	ок	from M00451	from M00451	from M00451	from M02621	from M02621	0	0
UST-9111-5	ок	0	0	0	0	0	0	0
UST-9112-5	ок	from M01351	from M01351	from M01351	0	0	0	0
UST-9113P-3.5	ок	0	0	0	0	0	0	0
UST-9114-3.5	ок	from M00884	from M00884	from M00884	0	0	0	0
UST-9115-5	ок	from M00594	from M00594	from M00594	0	0	0	0
UST-9116P-5	ок	from M00131	from MUU131	from: M00131	ø	0	0	0

ALOKA Transducers and approved Disinfectants & Sterilants List for U.S.A. (Rev. March 4, 2011)										
MODEL	EtO	STERRAD <sup>®</sup> 60, 100, 1008,	STERRAD <sup>®</sup> NX, 100NX	STERIS Amsco V-PRO1 <sup>™</sup>	STERIS System 1 <sup>®</sup>	STERIS System 1E <sup>TM</sup>	SPOROX <sup>™</sup> E	AUTOCLAVE		
	Sterilant	Sterilant	Sterilant	Sterilant	Liquid Sterilant	Liquid Sterilant	HL Disinfectant - Sterilant	Steam Sterilization		
UST-9118	ок	ок	ок	ок	0	0	0	0		
UST-9119	ок	ок	ок	ок	0	0	0	0		
UST-9120	ок	OK	OK	ок	from 20006061	from 20006061	0	0		
UST-9121	ок	ок	ок	ок	ø	0	0	0		
UST-9123	OK	OK	OK	ок	0	0	0	0		
UST-9124	ок	OK	OK	ок	0	0	0	0		
UST-9125-7.5	OK	OK	OK	ок	0	0	0	0		
UST-9126	ок	OK	OK	ок	0	0	0	0		
UST-9127	ок	ок	ок	ок	0	0	0	0		
UST-9128	ок	from M00326	from M00326	ок	0	0	0	0		
UST-9130	ок	ок	ок	ок	0	0	0	0		
UST-9132I	ок	OK	OK	ок	0	0	0	0		
UST-9132T	ок	ок	ок	ок	0	0	0	0		
UST-9133	ок	OK	OK	ок	0	0	0	0		
UST-9135P	ок	ок	ок	ок	0	0	0	0		
UST-9136	OK	OK	OK	ок	0	0	0	0		
UST-9136U	ок	OK	OK	ок	0	0	0	0		
UST-9137	ок	ок	ок	ок	0	0	0	0		
UST-9144-LAP	0	OK	OK	ок	OK	OK	0	0		
UST-9146I	ок	OK	ок	ок	ок	ок	0	0		
UST-9146T	OK	OK	OK	OK	OK	OK	0	0		
UST-9147	ок	0	0	0	0	0	0	0		
UST-MC11-8731	OK	from M00101	from M00101	from M00101	from 20006105	from 20006105	0	0		



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