

HyClone™ ADCF antifoam irradiated solution

ANTIFOAM IRRADIATED MEDIA AND SUPPLEMENTS

HyClone™ ADCF antifoam irradiated solution products have 3% active simethicone. Sterilization of these products is performed using a validated gamma-irradiation process. The products are delivered in single-use bags designed with tubing lines and fittings to enable easy connection and delivery to various cell culture systems (Fig 1). HyClone ADCF antifoam irradiated solution has been shown to effectively prevent foam from occurring in cell culture systems, as well as to quickly eliminate foam already formed.

Key features of irradiated antifoam products include:

- Easy to use and ready for immediate application
- Validated gamma-irradiation process to a sterility assurance level (SAL) of 10^{-6}
- Provided in single-use bags with convenient tubing and fitting designs (customization possible)
- Animal-derived component free (ADCF) for improved batch-to-batch consistency and reduced risk of viral contamination

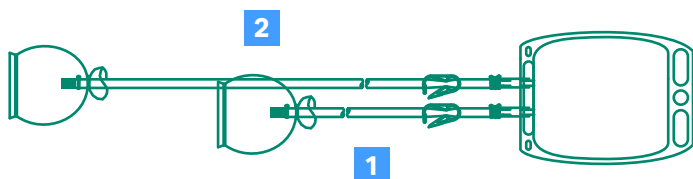
Specifications

HyClone ADCF antifoam irradiated solution has 3% active simethicone concentration. The products are formulated by dilution of 30% simethicone emulsion using water for injection (WFI) quality water. Gamma-irradiation treatment of these products has been validated to a sterility assurance level (SAL) of 10^{-6} . The gamma-radiation process is based on the Association for the Advancement of Medical Instrumentation (AAMI) technical information report (1). A sublethal sterilization dose was determined according to AAMI/ANSI/ISO11137-2, method VDMAX25. This process validates a radiation dose based on the determination of the product bioburden and a comparison of that bioburden with a model population having a defined resistance to radiation.

Our irradiated antifoam products are provided in single-use bags with convenient tubing and fitting designs (Fig 2 to 4). The single-use bags can also be customized to fit your specific needs.

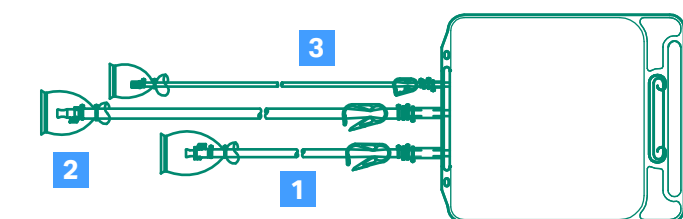


Fig 1. HyClone ADCF antifoam irradiated solution products are supplied ready to use in packaging from 500 mL to 10 L.



1 L container*	Size	Material	Tubing size	Fittings
Line 1	56 cm (22 in.)	Silicone	$\frac{1}{8}$ in. i.d. \times $\frac{1}{16}$ " wall	Female luer lock
Line 2	107 cm (42 in.)	C-Flex	$\frac{1}{8}$ in. i.d. \times $\frac{1}{16}$ " wall	Female luer lock

Fig 2. Diagram of a 1 L single-use container system*.



5 and 10 L containers*	Size	Material	Tubing size	Fittings
Line 1	27 cm (10.5 in.)	Silicone	$\frac{3}{8}$ in. i.d. \times $\frac{1}{8}$ in. wall	Female quick connect
Line 2	91 cm (36 in.)	C-Flex	$\frac{3}{8}$ in. i.d. \times $\frac{1}{8}$ in. wall	Male quick connect
Line 3	104 cm (41 in.)	C-Flex	$\frac{1}{8}$ in. i.d. \times $\frac{1}{16}$ in. wall	Female luer lock

Fig 3. Diagram of 5 and 10 L single-use container systems*.

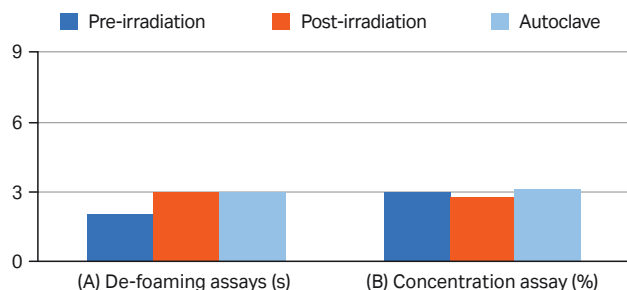


Fig 4. Comparison of (A) HyClone ADCF antifoam irradiated solution with (B) an autoclaved simethicone solution. HyClone ADCF antifoam irradiated solution provides the same level of de-foaming activity as an autoclaved antifoam solution.

Suggested preparation

HyClone ADCF antifoam irradiated solution products are delivered ready for immediate application. Due to the characteristics of simethicone emulsions, some product separation can occur during shipping and storage. Shake irradiated antifoam products vigorously before use. Note that some residue might remain in the filling tube upon receipt, and is inherent to the filling process. The residue has no impact on the product or its performance.

General culture recommendations

HyClone ADCF antifoam irradiated solution has been demonstrated to directly replace autoclaved simethicone solutions (Fig 4). As individual systems might vary, optimal concentrations and conditions should be determined prior to use. As the solutions are not filterable, aseptic techniques and processing are required to deliver HyClone ADCF antifoam irradiated solution products to cell culture systems and media.

Reference

1. Technical information report: Sterilization of healthcare products — radiation — substantiation of a selected sterilization dose — Method VDmax, AAMI TIR33:2005, ISBN 1-57020-270-2, Association for the Advancement of Medical Instrumentation, Arlington, VA, USA (2006).

Ordering information

Product	Description	Size*	Product code
HyClone ADCF antifoam irradiated solution	Raw material Dupont Q7-2587, simethicone emulsion USP manufactured to deliver 3% active simethicone concentration	500 mL	SH30897.01
		8 \times 500 mL	SH30897.04
		2.5 L	SH30897.02
		2 \times 2.5 L	SH30897.05
		5 L	SH30897.07
		10 L	SH30897.08

* Antifoam irradiated solution 500 mL is supplied in a 1 L single-use container system.
Antifoam irradiated solution 2.5 L is supplied in a 5 L single-use container system.
Antifoam irradiated solutions 5 L and 10 L are supplied in a 10 L single-use container system.

cytiva.com/AKTApcc

Cytiva and the Drop logo are trademarks of Life Sciences IP Holdings Corporation or an affiliate doing business as Cytiva.

ADCF and HyClone are trademarks of Global Life Sciences Solutions USA LLC or an affiliate doing business as Cytiva.

Any other third-party trademarks are the property of their respective owners.

The Danaher trademark is a proprietary mark of Danaher Corporation.

© 2025 Cytiva

For local office contact information, visit cytiva.com/contact

CY13712-28Aug25-DF