Rad-Sure™ Type 15 Gy and Type 25 Gy Blood Irradiation Indicator Use Instructions Rev. 04: February 2019

When attached to blood products, Rad-Sure Type 15 Gy and Type 25 Gy indicators show whether the blood products have been irradiated. Before a blood product and its attached indicator are irradiated, the indicator reads "NOT IRRADIATED". After the blood product and its attached indicator are irradiated, the word "NOT" in the indicator window is obscured and the indicator reads "IRRADIATED". Rad-Sure indicators should be used only with irradiators having cesium-137 or cobalt-60 radiation sources, or other sources of equal or greater energy.

Note: Rad-Sure indicators only indicate that irradiation has occurred. They do not measure the dose from an irradiator. They must be used only with irradiators that are working properly and are properly calibrated. However, because of variation in lighting conditions, product batches, and user eyesight, Rad-Sure indicators may appear fully opaque even after exposure to less than the minimum dose for the product. Therefore, Rad-Sure indicators should never be used to calibrate an irradiator.

- 1. Do not expose to 50°C (122°F)-Avoid prolonged exposure to elevated temperatures.
- 2. Remove the required number of indicators from the box. Look for the word "NOT" in the window of each indicator. Do not use an indicator unless the word "NOT" is clearly visible (see figure 1a).
- 3. Observe the product expiration date on the indicator. If the product is beyond the expiration date, do not use the indicator.
- 4. Enter the date and operator's initials in the spaces provided on the indicator.
- 5. Peel the indicator from its backing by bending the sheet. Avoid touching the adhesive layer with rubber gloves. Apply the indicator firmly to an appropriate, clean, dry place on the unit of blood prior to irradiation.
- 6. Irradiate the unit of blood with the attached indicator in a gamma source irradiator at or above the stated minimum dose.
- 7. After irradiation, check the indicator to verify that the window is black and obscures the word "NOT". The indicator should now read "IRRADIATED" (see figure 1b). If the word "NOT" remains visible, notify your supervisor immediately.
- 8. Return any remaining indicators to the box and close the lid to avoid prolonged exposure of the indicators to direct sunlight or ultraviolet light. Do not use the indicators in microwave ovens.
- 9. Store indicators at or below 25°C. Store away from all radiation sources, including gamma, rays, x-rays, electron devices, and microwaves.
- 10. Rad-Sure indicators can be disposed of with non-hazardous waste when they are not attached to a container containing hazardous waste. Rad-Sure indicators have a shelf life of 36 months from the date of manufacture.

Disclaimer: The information contained herein is believed to be reliable, but is not to be taken as a representation, warranty, or guarantee and customers are urged to make their own tests. No recommendation or permission is implied to violate any patents or other proprietary rights and Ashland Specialty Ingredients G.P. assumes no liability for any such violation.

Rad-Sure is a registered trademark of Ashland US Patent NOS 7445880

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For reorders within the U.S. email <u>AdvancedOrders@Ashland.com</u>. For service or information in the U.S. email: <u>AdvancedMaterials@Ashland.com</u>.

For service or information outside the U.S. contact your local distributor. For the name of a distributor in your area email <u>AdvancedMaterials@Ashland.com</u>.

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rad-sure™ gamma irradiation indicators before and after irradiation

Symbol	Symbol Title
LOT	Batch code
	Use-by date

	Manufacturer
\otimes	Do not re-use