

Receive instruction for CryoSure® LN2

CryoSure® LN2 1, CryoSure® LN2 2, CryoSure® LN2 10
For -150 °C shipments

Envirotainer°
Precision with Purpose



Product picture shows exemplary CryoSure® LN2 2.

CRYOSURE® LN2 RECEIVE INSTRUCTION

CryoSure® LN2 offers precise temperature control for cryogenic temperatures as low as below -150 °C for up to 35 days by using advanced insulation materials and proven dry shipper technology. With a three-layer system designed to withstand external influences, CryoSure® LN2 ensures the safety and efficacy of cell & gene therapies throughout the transportation and storage process, minimizing the risk of product loss or compromise. This receive instruction is valid for **CryoSure® LN2 1**, **CryoSure® LN2 2** and **CryoSure® LN2 10**.

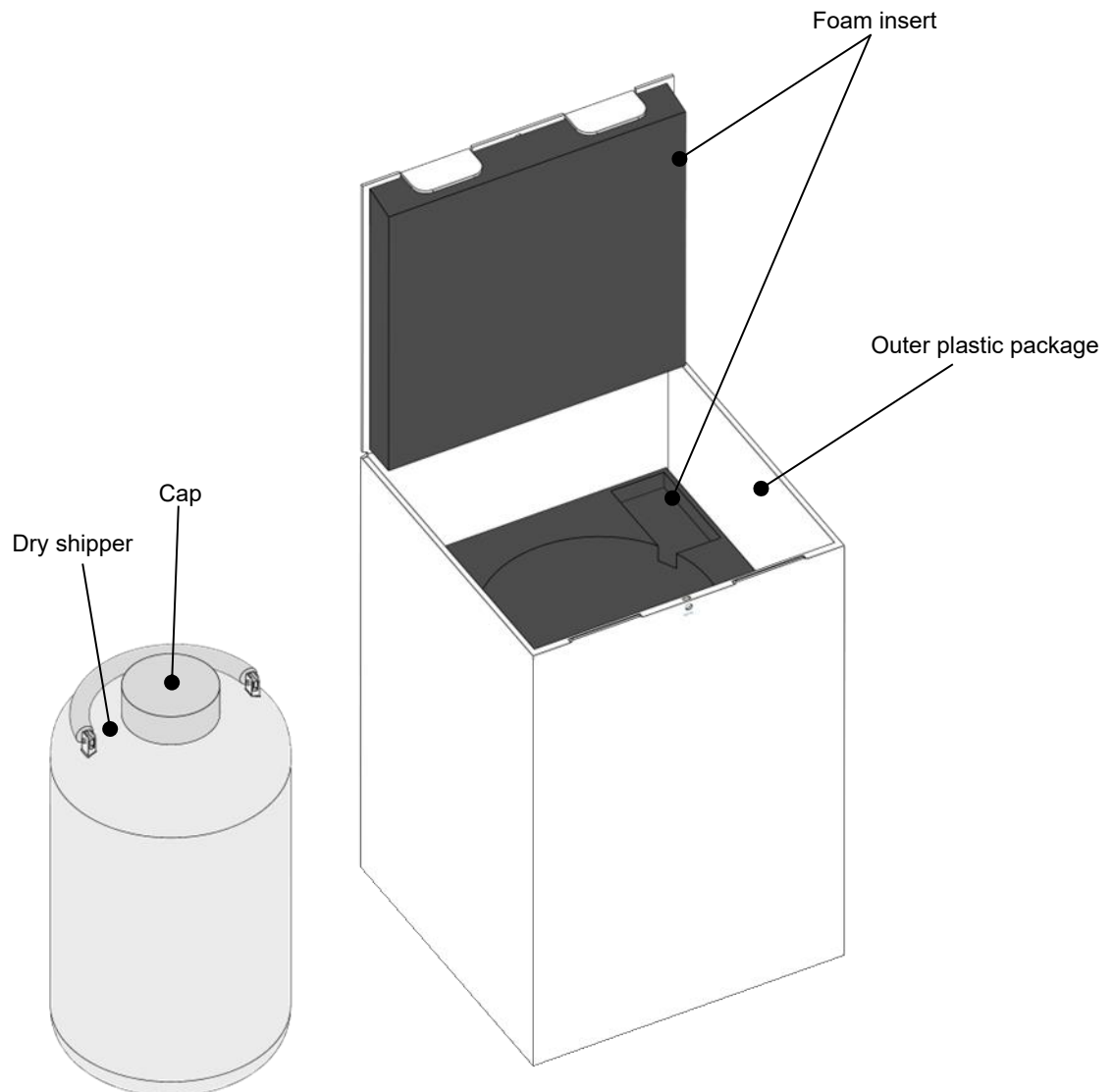
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Note

This product shall be stored and transported in upright position!

To ensure a sufficient quality of the CryoSure® LN2 (figure shows exemplarily CryoSure® LN2 2), it is recommended to carry out the following steps 1-4 after each shipment. Furthermore, it is recommended to carry out the thermal integrity check described in step 5 at least after every three shipments.



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Step 1

- Remove dry shipper from outer package and follow steps II – IV to perform a visual interior and exterior inspection.
- If a damage applies, please reach out to Envirotainer:
Email: support@envirotainer.com
Telephone: +46 8 586 29 300

Step 2 – Dry shipper inspection

Example damages of dry shipper:

- Dents or other damages
- Cap is damaged or missing

If cleaning of the component is necessary, use a suitable cleaner e.g. combined cleaning and disinfection agent based on alcohol. Do not use water to clean the interior of the dry shipper.

Step 3 – Foam insert inspection

Example damages of foam inset:

- Foam inset damaged
- Foam inset is loose or missing

If cleaning of the component is necessary, use a suitable cleaner e.g. combined cleaning and disinfection agent based on alcohol.

Step 4 – Outer plastic package inspection

Example Damages of outer plastic package:

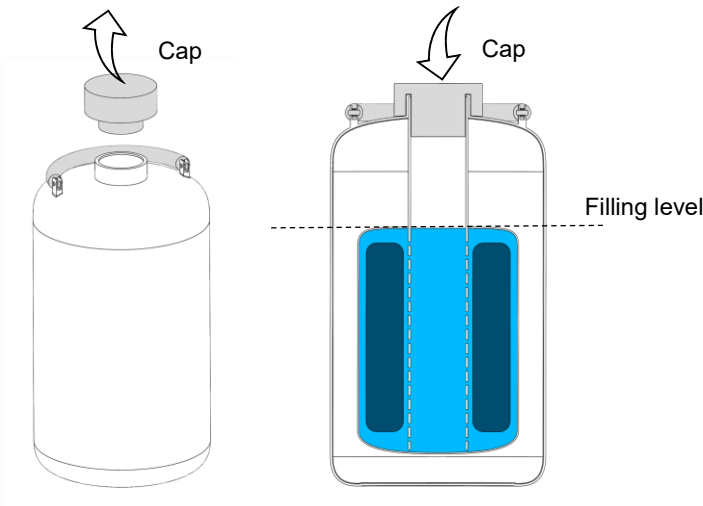
- Outer plastic package displays big slits or deep scratches/holes

If cleaning of the component is necessary, use a suitable cleaning method. The outer surface should not be treated with cleaning agents as there is a risk that the color print will peel off. If the outer surface gets dirty, wipe it carefully with a damp cloth.

Step 5 – Dry shipper thermal integrity check (minimum after every 3 shipments)

Remove dry shipper from outer package and follow the following steps to perform a thermal integrity check of the dry shipper.

- 1. Remove cap. Fill in liquid nitrogen to the shown filling level. Please follow the CryoSure® LN2 charging instruction. Put cap back on. Please note that it can occur that the cap is floating on the liquid nitrogen and is not unusual. Do not push the cap in that case.



- 2. Wait for at least 9 hours and maximum 48 hours.

Determine Weight A (*Weight of the charged dry shipper after filling*)
Please note, the scale should be accurate to 1 gram.

- 3. Wait minimum 3 hours and maximum 24 hours.

Determine Weight B.
Please note, the scale should be accurate to 1 gram.

- 4. Determine the daily weight loss (= DWL)

$$DWL = (Weight\ A - Weight\ B) * \frac{24\ hours}{duration\ (Waiting\ Time\ Step\ 3)}$$

- 5. The daily weight loss must be less than or equal to the following values. If this is the case, you can reuse the dry shipper for next charging process. If your values are above the below values, please contact Envirotainer:

Email: support@envirotainer.com
Telephone: +46 8 586 29 300

	CryoSure® LN2 1	CryoSure® LN2 2	CryoSure® LN2 10
Daily weight loss	≤ 95 g	≤ 240 g	≤ 700 g

For more information please contact support@envirotainer.com