

Care and Storage (ECS Case)

SynDaver Synthetic Human (SSH) muscles, organs, skin and open vasculature system (if present) are made from SynDaver's patented SynTissue®, which was developed to mimic the properties of live tissue. With a high water content (similar to living tissue), the SynDaver Synthetic Human must be stored in a liquid solution to avoid dehydration. In such an environment, it's necessary to actively combat common biological contaminants present in the air, in non-sterile water and on surfaces and the hands of those interacting with the model.

A novel storage solution, consisting of 90% water, 10% isopropyl alcohol and essential oils (1 mL per gallon of IPA) effectively protects the SynDaver model's SynTissue® structures from a wide array of contamination sources such as poor municipal water quality, airborne contaminants and physical handling during normal use. The IPA-based storage solution is long lasting, with only occasional replenishment required.

Due to the presence of diluted isopropyl alcohol in the solution, the use of the solution requires adherence to good safety and laboratory practices including utilizing appropriate personal protective equipment (apron, gloves, goggles) while maintaining the model. It is further recommended that an eye wash station be in close proximity to the model storage area.

During normal interaction (when the SSH is not submerged in its case), users should touch the model only while wearing gloves.

With proper laboratory and SSH handling protocols, the IPA-based storage solution is safe and extremely effective in maximizing the lifespan of your SynDaver Synthetic Human model.

Please follow all applicable federal, state and local laws for the disposal of the IPA-based storage solution.

Monitoring the Health of your SSH

Visually inspect your SynDaver Synthetic Human model and case conditions during each use or at a minimum, bi-weekly. The IPA-based storage solution may become cloudy. This is normal and does not affect the efficacy of the solution.

Over time, your SSH should remain pristine and free from any sort of microbial growth. As the model ages, it is normal for muscle and organ colors to fade slightly. The white portions of the model (muscle tendon, skeleton) should remain white.

While the IPA-based storage solution overcomes most issues with water quality variations (by neutralizing microbes), the presence of sediment in your water supply may adversely affect the aesthetics of your SSH model. The presence of sediment can be identified by its accumulation at the bottom of the case and/or a browning of the white portions of the model, most often recognizable on the hands and feet. While discoloration due to sediment is not a serious issue, SynDaver does recommend installing a sediment filter if sediment is present in your water supply.

In the Event of Issues with your SSH

Should you encounter any issues with your SynDaver Synthetic Human model, please contact our SynDaver Care team immediately. Additional information for the care and storage of your SSH model can be found at www.syndaver.com/syndaver-care (QR code below).

Email: care@syndaver.com

Phone: (813) 600-5530



SynDaver Synthetic Human

Required Items

- ◆ Water source
- ◆ Eight (8) gallons of 99.9% medical/technical grade Isopropyl Alcohol (customer supplied)
 - *7 gallons for initial fill, 1 gallon for replenishment
- ◆ Essential oil and 1 mL syringe (SynDaver supplied)

Steps (Initial Fill)

⇒ With the SSH model in the ECS Case, fill with water to a level 2.25" from the top lip of the case. This will equate to 58 gallons of water.

**To achieve a ~10% IPA concentration, add seven (7) gallons of 99.9% medical/technical grade IPA to the water, premixing the IPA and essential oil using the following steps:*

STEP 1: Premix IPA and essential oil additive

- ⇒ Premix 99.9% IPA and essential oil (add 1 mL of essential oil to each gallon of IPA)
- ⇒ Securely close the IPA container and gently agitate to mix contents

STEP 2: Add IPA/essential oil mixture to tank

- ⇒ Slowly pour the contents into the ECS Case, taking precautions to limit splash
- ⇒ Repeat for each gallon of IPA (7 gallons)

Replenishment

Storage Solution levels in the ECS Case will decrease over time due to spillage and evaporation. To maintain the appropriate depth of solution in your case (with the model submerged at least 1" under the surface, replenish your IPA-based Storage Solution as needed.

Steps (Replenishment)

Using the remaining one (1) gallon of IPA left over from the initial fill:

- ⇒ Premix 1 mL of essential oil into the gallon of IPA, cap jug and gently agitate to mix contents
- ⇒ In a separate empty gallon container, combine 9 parts water and 1 part IPA/essential oil mixture

**Retain the remaining IPA/essential oil mixture for future replenishments*

- ⇒ Slowly add the water/IPA mixture to the ECS Case, taking precautions to limit splash
- ⇒ Repeat as necessary to achieve the appropriate volume of solution (1.5" from the top lip of the case)