

# COLLECTING GAS SAMPLES WITH A HAND PUMP AND ISOBAGS®



**Isotech does not accept gas samples containing hydrogen sulfide (H<sub>2</sub>S, sour gas).**

Although IsoBags are designed and built to be durable, they can be damaged if not handled properly. Take care not to crease or puncture the bags. IsoBags should be stored at temperatures between -20°C and +50°C (-4°F to +122°F). Significant temperature excursions can compromise the function of the valve.

1. Remove an IsoBag from its shipping container, and use a soft-tip permanent marker to record all sample information directly onto the bag BEFORE FILLING. Also record this information on a chain-of-custody form (Isotech provides a paper COC with IsoBag kits, and a printable and fillable version can be found at [isotechlabs.com](http://isotechlabs.com)).
2. Attach the tubing provided to the sampling point, and then attach the inlet (black end) of the hand pump to the open end of the tubing. Squeeze the pump several times to purge the system of air.
3. While pumping slowly (to purge the dead space of air), insert the outlet Luer fitting (clear end) of the hand pump into the Luer-fit valve of the IsoBag. Connecting the Luer fittings depresses the valve stem and opens the valve. The fitting is not threaded – the design of the fitting allows for a leak-tight friction fit.
4. The IsoBag can be filled with 10-15 squeezes of the bulb – about 300 mL per bag. To allow space for expansion during shipment, the bag should only be filled to about two-thirds of its capacity. The bag is properly filled when it is about 1-1.5 inches thick at the center, as shown below.



*Underfilled*



*Perfect!*



*Overfilled*

5. Once the bag is filled, remove the fitting from the bag – just gently pull them apart.
6. Return the IsoBag to its box, and then place the box into the gasketed 5-gallon shipping container provided with the kit. No more than 3 IsoBags can be shipped in one shipper to avoid HAZMAT shipping restrictions. Ship samples to the laboratory as soon as possible.