



ISOFLURANE

is the most commonly used anesthetic gas on campus. As a liquid, it is dense, clear, and colorless. The gaseous form is heavier than air and tends to accumulate in low spots. 1mL of liquid can produce 200mL of vapor. It may cause irritation or narcotic effects, while very high chronic exposures may be teratogenic (potential to cause birth defects). For these reasons, it is recommended that personnel should limit their exposure to no more than 2 PPM (parts per million) over an hour's time. The following are practices to minimize or eliminate any waste anesthetic gas (WAG) exposures.

BEST CONTROL MEASURES:

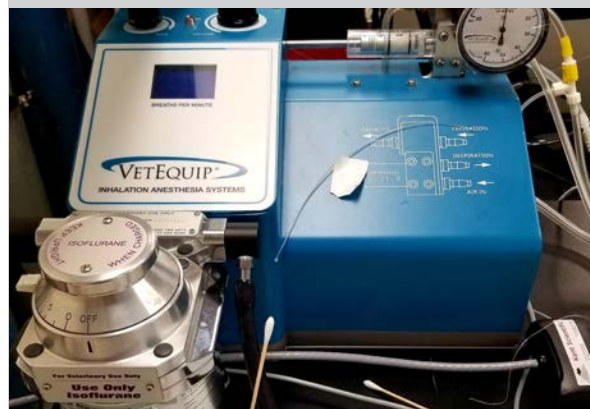
- Always handle isoflurane liquid or gas in a fully exhausted enclosure: a fume hood or downdraft table. Biosafety cabinets may not be fully exhausted and are not appropriate.

ACCEPTABLE CONTROL MEASURES:

- Use local measures such as a canopy exhaust or a gas scavenging canisters. These help but need greater levels of user oversight or preventive maintenance to be effective.

OTHER BEST PRACTICES:

- Use chambers with a sliding lid rather than a hinged lid to minimize gas escape.
- Utilize exhaust enclosures (e.g., fume hood) when refilling vaporizers or to perform open drop techniques. Where this is not feasible, consult with EHS.
- Inspect equipment before use. Check the lid for smooth operation and that all necessary supplies are on hand and sized appropriately. Pay close attention to any tubing or gaskets that may be cracked or damaged and if so replace before use.
- Follow your lab Standard Operating Procedures (SOP) when using isoflurane and allow sufficient purge time to eliminate anesthetic gasses.
- Wear appropriate personal protective equipment (PPE): a minimum of gloves and protective eyewear. Lab coats are recommended to prevent skin exposure.
- Store isoflurane bottles tightly closed, in a location protected from accidental contact that would cause breakage.
- In an emergency, call **911** and **UOPD** (541-346-2919) for immediate response.



Example: Anesthetic gas dispenser



Example: Sliding lid chamber



Utilize a fume hood or local exhaust to capture WAGs