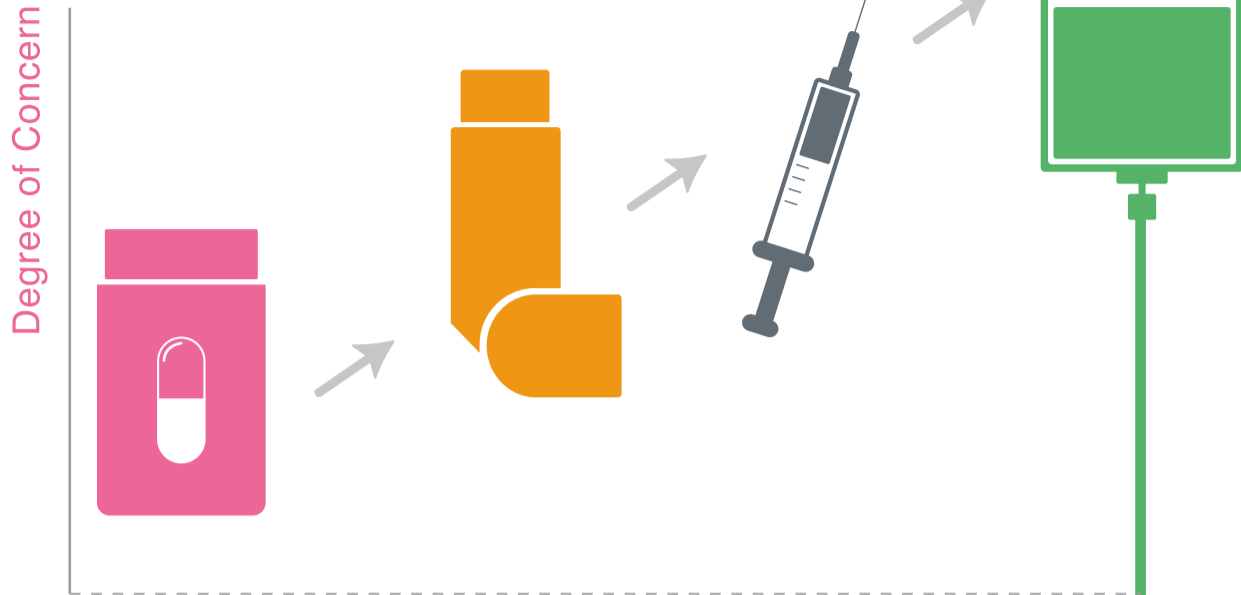


Extractables

Chemicals released from drug process equipment or packaging under lab conditions.



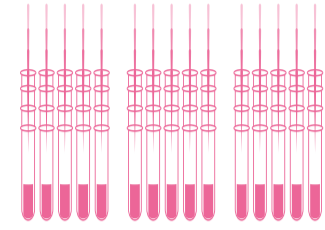
GLOBAL PHARMACEUTICAL PACKAGING

\$70bn

GLOBAL PHARMACEUTICAL MARKET

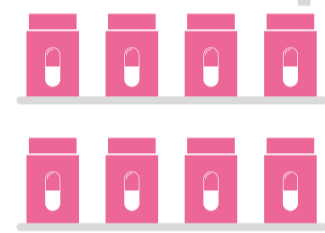
\$1000bn

DRUG DEVELOPMENT



6-11

YEARS

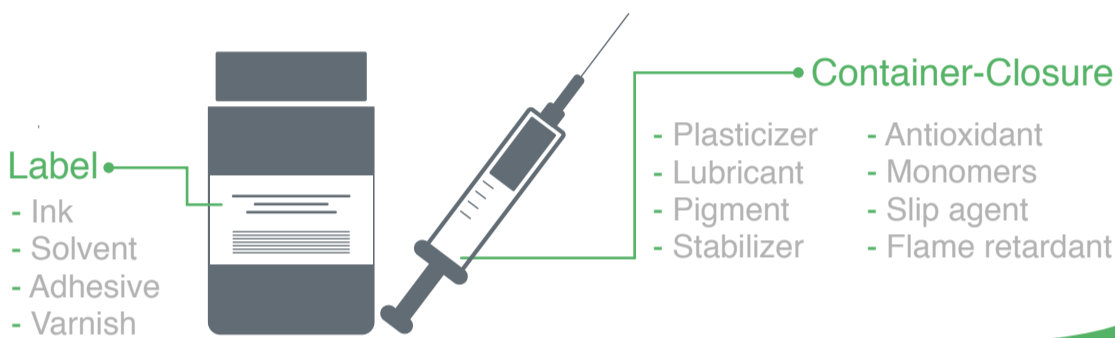


~7 YEAR



2-4 YEARS

WHERE DO LEACHABLES COME FROM?



Leaching probability

Container-Closure

- Plasticizer
- Lubricant
- Pigment
- Stabilizer
- Antioxidant
- Monomers
- Slip agent
- Flame retardant

- Label
- Ink
 - Solvent
 - Adhesive
 - Varnish

Leachables

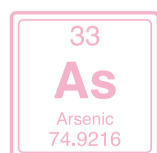
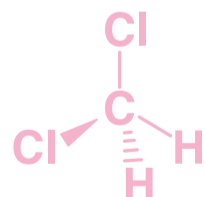
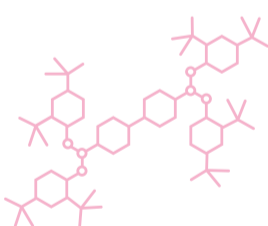
Drug impurity that migrates from process equipment or packaging during storage or usage.



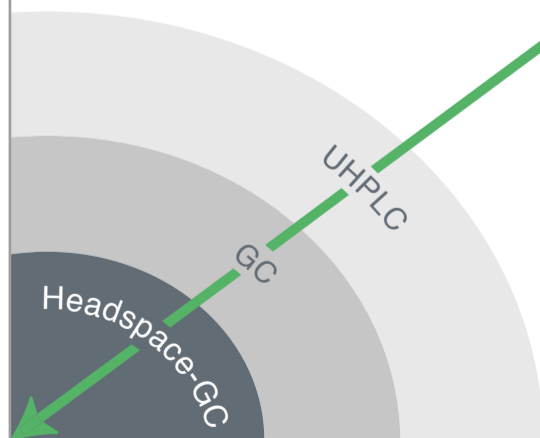
COST OF LEACHABLE STUDY CIRCA

\$2m

IMPURITIES



Molecular Weight



Increasing Leachables

Polarity

REDUCE RISK

Visit thermoscientific.com/Leachables