Autoclave Equipment Use– Quick Guide

University of Regina

1. Choose the cycle type

Is the material biological waste? — Yes →

Material needs to be autoclaved for a **minimum of 30 minutes.**

Is the material liquid?

No →

Solid materials can be autoclaved with a **dry/gravity cycle**. No need to include "**drying time**" since waste does not need to dry before disposal.

Yes →

Liquids must only be autoclaved with a **liquid cycle**.

No →

Is the material liquid?

No →

Is the material soil, powder, vermiculite, etc?

Yes →

Liquids must only be autoclaved with a **liquid cycle**.

No →

Solid materials can be autoclaved with a **dry/gravity cycle**. Some cycles may include "**drying time**" to ensure material stays sterile.

Yes →

Particulates must be run in a **liquid cycle** only; the rapid exhaust of a gravity cycle could cause the particulates to disperse.

2. Choose the cycle time

dry/gravity cycle

As a general rule, the following chart determines how long the **dry/ gravity cycle** needs to run for:

Items*	Recommended Cycle
Glassware (empty, vented)	Dry 20
Instruments (metal with porous materials (unwrapped))	Dry 20
Hard Goods (unwrapped)	Dry 20
Hard Goods (wrapped)	Dry 30
Biological Waste	Dry 30 (minimum)

* If items of interest to be autoclaved are not listed, additional cycles can be added. Contact the Microbiology Technician for assistance.

If primary containers touch each other or touch the sides of the secondary container, more time is needed to reach required temperature.
Do **not over load** secondary container.

liquid cycle

As a general rule, the following chart determines how long the **liquid cycle** needs to run for:

Volume of Liquid in One Container *	Recommended Cycle
≤ 75 mL	Liquid 25
≤ 250 mL	Liquid 30
≤ 500 mL	Liquid 40
≤ 1000 mL	Liquid 45

* If volume of liquid in **one** container to be autoclaved is above 1000mL, additional cycles can be added. Contact the Microbiology Technician for assistance.

If primary containers touch each other or touch the sides of the secondary container, more time is needed to reach required temperature.
Do **not over load** secondary container.