

**Product Description**

Scientific Plastics' neutralizing and dilution tanks are rotationally molded from virgin high density polyethylene conforming to ASTM D1248 for polyolefin materials. Tanks can be used for service of 180°F in continuous service, or intermittent use of 212°F. Tops are bolted or fusion welded to the engineer's specification, with all fittings made of polyethylene and welded into all penetrations of tanks.

**General Information**

Neutralization of corrosive, toxic and flammable wastes is necessary to the environment and piping systems, even when quantities and concentrations are small. Such wastes can cause physical damage to a building's piping or outside sewer systems and if effluent is being discharged to the environment (such as rivers and lakes), severe damage can result to wildlife and water sources.

Neutralization is the process whereby acids and alkalis are rendered harmless. The degree of neutralization can be measured by a system known as pH (positive hydrogen ions). The degree of measurement is a pH number of 7, which is neutral. Acids range from 0 to 6.99 and alkaline ranges from 7.01 to 14. The smaller the pH number, the higher the content of acidic waste present. The higher the pH number, the higher the alkaline wastes.

**Sizing Tanks**

Sizing the correct neutralization tank for a project is done by relating the number of stations to be discharged through the system. In commercial and industrial laboratories the number of lab stations in the following table should be divided by two.

Use this table as a guide.

Number of Lab Stations	Tank Size Gal	Limestone Lbs
2	5	50
4	15	150
8	30	250
16	55	500
25	100	1000
42	150	1700
65	200	2500
80	300	3600
110	350	4500
150	500	6000
350	1000	14500
700	2400	30000

**Limestone Usage**

Limestone chips are being used in numerous applications to help neutralize chemical bearing wastes (e.g. acid waste). After years of successful neutralization, many states and local environmental plumbing codes call for the addition of limestone chips into acid neutralization basins, tanks, or sumps. Water is added to the tanks to initiate the dilution process. We recommend the limestone chips be one to three inches in diameter size range and have calcium carbonate content in excess of 90%.

*See above chart for approximate limestone needed.*

**Maintenance of tanks**

Proper maintenance of neutralization tanks is essential for proper neutralization of wastes in the systems. Tanks must be cleaned out periodically of all sludge, debris and other material and must be checked for proper amount of limestone. A regular maintenance schedule of one to three months should be observed, but more or less frequent inspection may be necessary in any particular case.