Technical Information:

Date: Aug 13th 2004
Subject: Chlorine Gas to Liquid Chlorine
Product: General Info
Category: Chlorine
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In converting from using Chlorine Gas to Sodium Hypochlorite, the calculation has to be done to determine how much liquid chlorine should be used to replace the chlorine gas.

Chlorine gas is considered 100% concentration
Sodium Hypochlorite typically has a 12% concentration. (12% concentration with SG = 1.168)
If you know the concentration of one then the other can be calculated.

The calculation would be :

1. (kg Cl Gas x 100%) / % NaClO = kg NaClO

2. (kg NaClO) / 1.168 = Litres of Sodium Hypochlorite

Example

A process uses 12 lbs of chlorine gas per hour, if they were to convert to 12 % Sodium Hypochlorite, how much would they have to pump to achieve the same addition.

1 kg = 2.2 lbs so 12 lbs = 5.5 kg.

1. (5.5kg Cl Gas x 100%) / 12 % NaClO = 45.8 kg NaClO

2. (45.8 kg NaClO) / 1.168 = 39.2 Litres of 12% Sodium Hypochlorite

To convert to 12% Sodium Hypochlorite in this example you would need a pump able to deliver 39.2 litres per hour.

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