

Growth Technology

HANDLING HAZARDOUS LIQUIDS



IMPORTANT INFORMATION

Successful hydroponic cultivation involves the use of various aggressive liquid chemicals. Some of these liquids are hazardous to human health and require very careful handling.

ALWAYS READ THE LABEL BEFORE USE

1. **ALWAYS** keep all chemicals under lock and key and always OUT OF THE REACH OF CHILDREN.
2. **ALWAYS** follow the safety advice on the label while handling.
3. **ALWAYS** ensure that a good supply of fresh water is close to hand in case of accident.

Growth Technology pH DOWN 81% and pH DOWN 30%

DANGER – Causes severe skin burns and eye damage

Contain phosphoric acid (H_3PO_4). These products are corrosive and should be handled with extreme care.

Growth Technology pH UP

DANGER – Harmful if swallowed. Causes severe skin burns and eye damage

Contains potassium hydroxide (KOH) at 25%. This is a very caustic liquid and should be handled with extreme care.

NEVER mix pH UP (alkali) and pH DOWN products (acids) together. ALWAYS store separately.

Growth Technology LIQUID SILICON

DANGER – Causes serious eye damage

Contains potassium silicate at 6%. This is a very caustic liquid and should be handled with extreme care.

Growth Technology LIQUID OXYGEN

DANGER – Causes serious eye damage

Contains hydrogen peroxide (H_2O_2) at 11.9%.



Personal protection

Use safety goggles, suitable protective gloves and protective clothing, and ensure adequate ventilation. Goggles are essential for eye safety when handling hazardous liquids.

First aid measures

In case of accidental exposure to skin or eyes rinse the area immediately with plenty of water. Refer to the product label for further advice. In case of inhalation or ingestion refer to product label and seek medical attention.

Dilution

Growth Technology pH UP, pH DOWN 81% and Liquid Silicon are very concentrated solutions. This makes them extremely cost effective for the end user. However we **STRONGLY RECOMMEND** the grower to dilute the solutions before use.

- Diluting the solution renders it safer to handle.
- Diluting the solution makes it easier to use. More is required so dosing is less critical – less chance of mistakes.
- Dilute solutions are less likely to react with nutrient solutions. This is especially important with pH UP and Liquid Silicon.

ALL SAFETY PRECAUTIONS SHOULD STILL BE ADHERED TO.

Clean, clearly labelled five litre plastic jerry cans are ideal for storing diluted pH control solutions. Always add water to the can first and then the solution. Mix them together thoroughly. Make sure to rinse all containers and measuring equipment thoroughly with clean water after use.

A 1 in 20 dilution (250 ml in 5 litres) is ideal – simply use the dilute solution at 20 times the rate of the concentrate. Exact measurements are not needed provided that a meter or test kit is used to measure pH.

When diluting **pH DOWN 30%**, a 1 in 10 dilution is ideal (500 ml in 5 litres).

It is not recommended to dilute **Liquid Oxygen**.

Measurement

The best way to measure and transfer liquids is with a pipette or syringe. Ask a retailer of Growth Technology products for a pipette. For larger amounts graduated plastic jugs and funnels are ideal.

SAFETY DATA SHEETS

SDSs are available for all hazardous products sold by Growth Technology. They can be requested by phone, or by email at sds@growthtechnology.com. SDSs can also be accessed online at www.growthtechnology.com.

If more help or advice is needed about the use of Growth Technology nutrients or adjustment chemicals then please do not hesitate to call us on 01823 325291, or email us at info@growthtechnology.com

www.growthtechnology.com

Designed by professionals... fine-tuned by experience