



## MATERIAL SAFETY DATA SHEET

### *pH-Up*

#### PRODUCT IDENTIFICATION

PRODUCT NAME	Advanced Hydroponics pH-Up		
SUPPLIER	ADVANCED HYDROPONICS OF HOLLAND Hornweg 316, 1432 GT Aalsmeer, The Netherlands +31-297-363404		
CHEMICAL DESCRIPTION	Potasium hydroxide ( $K_2SO_4$ ) 33,6%		
HAZARDOUS COMPONENTS	$H_2SO_4$ (12,3%) CAS nr. 7664-93-9 EEC nr. 231-639-5		
NFPA/HMIS RATING (0-4) (0 = INSIGNIFICANT: 4 = EXTREME)	HEALTH 1	FIRE 0	REACTIVITY 1
SPECIFIC HAZARD: <b>Some</b>			

#### PHYSICAL/CHEMICAL CHARACTERISTICS

BOILING POINT	100°C
VAPOR PRESSURE	Same as water
VAPOR DENSITY	Same as water
EVAPORATION RATE	Same as water
MELTING POINT	Not Applicable
SPECIFIC GRAVITY/DENSITY	1,20 kg/L at 30°C
pH	< 1
SOLUBILITY IN WATER	100%
APPEARANCE	Clear, colourless liquid
ODOR	Slightly pungent

#### FIRE AND EXPLOSION INFORMATION

FLASH POINT	Not Applicable
FLAMMABLE LIMITS	Product itself is not flammable
EXTINGUISHING MEDIA	In case of fire in direct surroundings extinguishing media of sand and powder are permitted. <b>DO NOT USE WATER CONTAINING EXTINGUISHERS!!</b>
UNUSUAL FIRE AND EXPLOSION HAZARDS:	Toxic/corrosive fumes may be released if exposed to high temperatures

## REACTIVITY DATA

CONDITIONS TO AVOID	Do not expose to high temperatures.
MATERIALS TO AVOID	Metals (iron), flammable materials, water
STABILITY	Stable at ordinary temperatures
TOXICOLOGICAL INFORMATION (Immediate toxicity)	LD50/oral/rat. = 2140 mg/kg LC50/ingestion/2 hours/rat. -510 mg/m <sup>3</sup>
ECOLOGICAL INFORMATION	Bio Accumulation: none Mobility: 100% solubility in water Exotoxicity: LC50/484/gold fish = 100-330 mg/l

## HEALTH EFFECTS/FIRST AID INFORMATION

SKIN	IRRITATION, PAIN, BURNS  <b>Wash gently with milk soap/detergent and flowing water. Apply skin lotion if skin has dried. Wash contaminated clothing.</b>
EYES	IRRITATION, PAIN, BLURRY VISION  <b>Rinse immediately with water for 15 minutes, lift eye lids. See physician if irritation persists.</b>
INGESTION	IRRITATION OF THE THROAT, STOMACK PAIN, NAUSEA  <b>Drink plenty of water. See a physician.</b>
INHALATION	IRRITATION OF THE THROAT, COUGHING, SHORT OF BREATH  <b>(Unlikely) Take in fresh air.</b>

## PRECAUTIONS FOR SAFE HANDLING AND USE

<b>ALLWAYS ADD THE PRODUCT TO WATER/NEVER ADD WATER TO THE PRODUCT</b>	
RESPIRATORY PROTECTION	Not normally needed. If misting occurs use approved respirator to eliminate exposure
VENTILATION	Exhaust fan recommended to control any misting
PROTECTIVE GLOVES/CLOTHING	PVC-gloves and protective clothing recommended if repeated or prolonged contact expected.
WORK PRACTICE	Use good housekeeping practices. Keep bottle(s) closed.
SPIILLS	Prevent product from entering drinking water supplies or natural waters. Dike area with sand or earth and pump into labeled tank for recycling/salvage if not contaminated by other material. Small quantities may be allowed to dry out and residue swept up and packaged for disposal in approved landfill.
WASTE DISPOSAL METHOD	Absorb product with inert material and package for disposal in approved landfill.
PRECAUTIONS IN STORING AND HANDLING	Store tightly closed in cool, well ventilated place. Keep away from fire and/or hot surfaces. Keep away from children.
EYE PROTECTION	Chemical splash goggles recommended where fine sprays or misting expected, otherwise regular safety glasses adequate