

# PRECAUTIONARY STATEMENTS

## HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**DANGER:** CAUSES SEVERE SKIN BURNS AND EYE DAMAGE. MAY BE CORROSIVE TO METALS. HARMFUL IF INHALED. DO NOT BREATHE DUST/FUME/GAS/MIST/VAPORS/SPRAY. DO NOT EAT, DRINK, OR SMOKE WHEN USING THIS PRODUCT. WEAR PROTECTIVE GLOVES/CLOTHING/EYE AND FACE.

### Physical or Chemical Hazards

Mix only with water or with hypochlorite (bleach solutions). Product must be diluted in accordance with label directions prior to use. This product is not combustible; however, at temperatures exceeding 150°F, decomposition occurs releasing bromine fumes.

### Environmental Hazards

This product may be toxic to aquatic invertebrates. Do not intentionally discharge effluent containing concentrated product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of the (NPDES) permit and the permitting authority has been notified in writing prior to discharge.

### Storage and Disposal

**Storage:** NEVER return this product to the original container after it has been removed. Avoid all contaminants, especially dirt, caustic, reducing agents, and metals. Contamination and impurities will reduce shelf life and can induce decomposition. Avoid damage to containers. Keep container closed when not in use, and out of direct sunlight at all times.

**Procedure for Leak or Spill:** Stop leak if this can be done without risk. Broadcast sodium carbonate (soda ash) on the leak/spill. If pH adjustment must be made use more soda ash (sodium carbonate) to bring pH into higher ranges which will allow water dilution prior to discharge into an approved sewer or wastewater system. Otherwise, use absorbent on the spilled and neutralized material and collect for disposal into landfill or incineration. Keep combustible and organic materials away. Flush spilled material with large quantities of water.

**Disposal:** Improper disposal of excess product is a violation of Federal Law. If these wastes cannot be disposed by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or Hazardous Waste representative at the nearest EPA Regional Office for guidance. If material has been spilled, an acceptable method of disposal is to dilute with at least 20 volumes of water followed by discharge into suitable treatment system in accordance with all Local, State and Federal environmental laws, rules, regulations, standards, and other requirements. Because acceptable methods of disposal may vary by location, regulatory agencies should be contacted prior to disposal. This product, which is to be discarded, should be disposed of as hazardous waste after contacting the appropriate Local, State or Federal agency to determine proper procedures.

**Container Disposal:** >=5 gallon plastic drums: Triple rinse (or equivalent), then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Patent Pending

Item # 653-v5



# HB2

## (Hypobromous Acid Precursor) For Meat and Poultry Uses

HB2 is a source of hypobromous acid which must be activated using a hypochlorite source and then diluted before use in accordance with the instructions. If used as directed, it will help reduce microbial contamination and cross-contamination on edible food products. This product's use is acceptable for direct or indirect contact on food, including process water used on meat and poultry, carcasses, parts, organs and trim without a potable water rinse, and is authorized for this use by FDA's FCN # 944, #1036 and #1098, and as listed in Directive List 7120.1.

The use of this product during processing is considered a process aid.

### INGREDIENTS:

Hydrogen Bromide

Before Using This Product, Please Read This Entire Label Carefully.

**KEEP OUT OF REACH OF CHILDREN**

# DANGER

### FIRST AID

**IF IN EYES:** HOLD EYE OPEN AND RINSE SLOWLY AND GENTLY WITH WATER FOR 15-20 MINUTES. REMOVE CONTACT LENSES IF PRESENT AFTER THE FIRST 5 MINUTES, THEN CONTINUE RINSING EYE. CALL A POISON CONTROL CENTER OR DOCTOR FOR TREATMENT ADVICE.

**IF ON SKIN OR CLOTHING:** TAKE OFF CONTAMINATED CLOTHING. RINSE SKIN IMMEDIATELY WITH PLENTY OF WATER FOR 15-20 MINUTES. CALL A POISON CONTROL CENTER OR DOCTOR FOR TREATMENT ADVICE.

**IF INHALED:** MOVE PERSON TO FRESH AIR. IF PERSON IS NOT BREATHING, CALL 911 OR AN AMBULANCE, THEN GIVE ARTIFICIAL RESPIRATION, PREFERABLY BY MOUTH. CALL A POISON CONTROL CENTER OR DOCTOR FOR TREATMENT ADVICE.

**IF SWALLOWED:** CALL A POISON CONTROL CENTER OR DOCTOR IMMEDIATELY FOR TREATMENT ADVICE. HAVE PERSON SIP GLASS OF WATER IF ABLE TO SWALLOW. DO NOT INDUCE VOMITING UNLESS TOLD TO DO SO BY A POISON CONTROL CENTER OR DOCTOR. DO NOT GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.

**NOTE TO PHYSICIAN:** PROBABLE MUCOSAL DAMAGE MAY CONTRAINDICATE THE USE OF GASTRIC LAVAGE.

### ACTIVATION INSTRUCTIONS:

Do not use this product by itself. This product is an acid that can be mixed with any suitable source of hypochlorite (bleach) to quickly and efficiently form hypobromous acid, which is an effective antimicrobial additive to water. The relative amount of different types of hypochlorite source to add to **each diluted gallon (10.0 lbs)** of this product is as follows: (128 fl. oz. = 1 gal)

- 12.5% sodium hypochlorite = 1.75 gal per gallon of HB2
- 12% potassium hypochlorite = 2.1 gal per gallon of HB2
- calcium hypochlorite (dry) = 2.0 lbs per gallon of HB2

**BLENDING:** This product may be activated by using HB2 and hypochlorite added manually in a small batch tank, or automatically using chemical pumps into a water line using cold water. Always add the HB2 first. The chemical (activation) takes only seconds. The optimum target pH of the activated use solution should be 6.9-7.3 and is easily seen by a distinct pale yellow color of the mixed solution, but pH values of 6.6-7.6 are acceptable for use. If product remains unused for more than 1 day, (or more than a few hours for higher range solutions) it can be reactivated by adding a hypochlorite source until the color again turns pale yellow or the pH returns to about 7.0.

**TESTING:** The terms hypobromous, bromine and bromide shall be considered synonymous in relation to the use and testing of this product. If using a total chlorine test kit, multiply the results by 2.25 to get the total bromine (bromide) equivalent in ppm.

A general chart for making several (recommended) ranges of hypobromous acid is as follows: (Per 100 gallons of water):

Yield	HB2	12.5% NaOCl	12% KOCl
100 ppm	2.5 fl oz	4.5 fl oz	5.4 fl oz
3,000 ppm	77 fl oz	135 fl oz	165 fl oz

### DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

This product may be used in all process water applications as follows:

#### MEAT APPLICATIONS:

For Use on Meat, Hides, Carcasses, Parts, Trim, and Organs:

For use as an antimicrobial processing aid, premix this product with a hypochlorite source as described in the "Blending Instructions". The final diluted concentration necessary to accomplish the intended task will vary considerably from plant-to-plant but should not exceed **900 ppm** as total bromine (or 400 ppm as total chlorine). Apply use solution to carcass or meat parts using spray or dip application. Spray application may be used at pressures from 20-300 psi. Dilution water may be ambient temperature or preheated up to 45° C (114° F) if desired. If used in cooling water or dip-tank application make up water can be chilled to 1° C (33° F). Do not use warm water (>80° F) to make solutions above 300 ppm as available bromine.

#### POULTRY APPLICATIONS:

For Use on Poultry, Carcasses, Parts, Trim, and Organs:

This product may be used as an antimicrobial water additive (process aid) for general process water treatment, including sprays, dips, pre and post chillers, inside-outside bird washers, etc. The final residual concentration necessary to accomplish the intended task will vary considerably from plant-to-plant and type of application, but should not exceed 450 ppm as total bromine (or ~200 ppm as total chlorine).

Manufactured By:

Enviro Tech Chemical Services, Inc.

500 Winmoore Way, Modesto, CA 95358

NET CONTENTS: 55 Gal

Lot #:

D.O.T. and Haz Mat Information:

**UN 3264; Corrosive liquid, acidic, inorganic, n.o.s. (hydrogen bromide); 8, PGII; RQ 20,000 lbs**