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 gal(lon) (10.0 lbs) of this product is as follows:

(a) 12.5% sodium hypochlorite = 1.75 gal per gallon of HB2
(b) 12% potassium hypochlorite = 2.1 gal per gallon of HB2
(c) 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):

<table>
<thead>
<tr>
<th>Yield</th>
<th>HB2</th>
<th>12.5% NaOCl</th>
<th>12% KOCL</th>
</tr>
</thead>
<tbody>
<tr>
<td>100 ppm</td>
<td>2.5 fl oz</td>
<td>4.5 fl oz</td>
<td>5.4 fl oz</td>
</tr>
<tr>
<td>3,000 ppm</td>
<td>77 fl oz</td>
<td>135 fl oz</td>
<td>165 fl oz</td>
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</tbody>
</table>

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

HOCl - Hypochlorous acid
HOBr - Hypobromous acid
HBrO - Hypobromate ion
HBrO2 - Hypobromite ion