MATERIAL SAFETY DATA SHEET

ALDON CORPORATION
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MSDS No. BB 412
Effective Date December 8, 1998

SECTION I NAME

Product	BUFFER SOLUTION (pH12)
Chemical Synonyms	Buffer aqueous solution
Formula	Mixture.
Unit Size	up to 4 Lt.
C.A.S. No.	Mixture.

24 HOUR EMERGENCY ASSISTANCE

CHEMTREC
800-424-9300
Day 716-226-6177

NFPA HAZARD RATING

LEAST	SLIGHT	MODERATE	HIGH	EXTREME
0	1	2	3	4

HMIS *

Health	0
Fire	0
Reactivity	0

SECTION II INGREDIENTS OF MIXTURES

Principal Component(s)	%	TLV Units
Boric Acid: (CAS No. 10043-35-3)	0.32-0.51%	None established.
Potassium Chloride: (CAS No. 7447-40-7)	0.39-0.4%	None established.
Sodium Hydroxide: (CAS No. 1310-73-2)	0.08-0.38%	Ceiling: 2 mg/m^3 (Air)

CAUTION! USE IN KEEPING WITH GOOD LABORATORY PRACTICES.

SECTION III PHYSICAL DATA

Melting Point (°F)	Freezes approx. 0°C (32°F)	Specific Gravity (H_2O = 1)	1.0
Boiling Point (°F)	100°C (212°F)	Percent Volatile by Volume (%)	98.7 - 99.1%
Vapor Pressure (mm Hg)	14 (water)	Evaporation Rate (Ether =1)	Greater than 1.
Vapor Density (Air=1)	0.7 (water)		
Solubility in Water	Complete.		
Appearance & Odor	Clear, colorless liquid; no odor.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

			Lower	Upper
Flash Point (Method Used)	Non-combustible.	Flammable Limits in Air % by Volume N/A		
Extinguisher Media	Use any media suitable for extinguishing supporting fire.			

SPECIAL FIREFIGHTING PROCEDURES

In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective clothing.

* Water: (CAS No. 7732-18-5)...98.7 - 99.1%...None assigned.

UNUSUAL FIRE AND EXPLOSION HAZARDS

In fire conditions, water may evaporate from this solution, which may cause hazardous decomposition products to be produced as dust or fume.

D.O.T. **NON-REGULATED.**

Approved by U.S. Department of Labor "essentially similar" to form OSHA-20

SECTION V HEALTH HAZARD DATA BB 412

Threshold Limited Value
None assigned to this mixture. Toxicity: Boric Acid: orl-wnn LD_{LO}: 200 mg/kg; orl-inf LD_{LO}: 934 mg/kg. ; Sodium Hydroxide: ipr-mus LD_{50}: 40 mg/kg; orl-rbt LD_{LO}: 500 mg/kg.

Effects of Overexposure
Due to the high dilution of this solution it is not considered to be a hazardous material. Contact with skin and eyes may produce irritation. Ingestion may be harmful. To the best of our knowledge, the chemical, physical properties have not been thoroughly investigated. Exercise appropriate procedures to minimize potential hazards

Emergency and First Aid Procedures
SKIN: Flush with water, then wash with soap and water. **EYES:** Flush thoroughly with water, lifting upper and lower eyelids occasionally. If irritation persists, get medical attention. **INGESTION:** If swallowed, if conscious, give one or two glasses of water to drink and call physician. Never give anything by mouth to an unconscious person. **INHALATION AS MIST:** Remove to fresh air. If not breathing, give artificial respiraton. If breathing is difficult, give oxygen. Get medical attention.

SECTION VI REACTIVITY DATA

Stability	**Unstable**		**Conditions to Avoid**
	Stable	X	Excessive temperature to cause evaporation.

Incompatibility (Materials to Avoid) Acids, alkalies, and air will change the buffer's ability.

Hazardous Decomposition Products Thermal decomposition may yield Boron oxide, chlorine gas.

Hazardous Polymerization		**Conditions to Avoid**
May Occur	**Will Not Occur**	Not applicable.
	X	

SECTION VII SPILL OR LEAK PROCEDURES

Steps to be taken in case material is released or spilled
Absorb with an inert dry material and place in a suitable container for proper disposal.

Waste Disposal Method
Discharge, treatment, or disposal may be subject to Federal, State or Local laws. These disposal guidelines are intended for the disposal of catalog-size quantities only.

Dispose of in accordance with federal, state and local regulations.

SECTION VIII SPECIAL PROTECTION INFORMATION

Respiration Protection (Specify Type) None needed in normal laboratory handling. If misty conditions prevail, work in ventilation hood or wear a NIOSH/MSHA-approved respirator.

Ventilation				
	Local Exhaust	None required.	**Special**	No.
	Mechanical (General)	None required.	**Other**	No.

Protective Gloves	Rubber.	**Eye Protection**	Chemical safety glasses.

Other Protective Equipment Goggles, lab coat, proper gloves, and eye wash station.

SECTION IX SPECIAL PRECAUTIONS

Precautions to be Taken in Handling & Storing
Keep container tightly closed when not in use.
Store in a cool, dry place. Wash thoroughly after handling.

Other Precautions Read label on container before using. Do not wear contact lenses when working with chemicals.

Remove and wash contaminated clothing.

For laboratory use only. Not for drug, food or household use. Keep out of reach of children.

Revision No. 7	Date 12/8/98	Approved Michael Raszeja	Chemical Safety Coordinator MR