MATERIAL SAFETY DATA SHEET

ALDON CORPORATION
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MSDS No. NN 60
Effective Date April 1, 1999

SECTION I NAME

Product	NESSLER'S REAGENT, SOLUTION
Chemical Synonyms	Nessler's Reagent, 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

Health	3
Fire	0
Reactivity	1

HMIS *

LEAST	SLIGHT	MODERATE	HIGH	EXTREME
0	1	2	3	4

SECTION II INGREDIENTS OF MIXTURES

Principal Component(s)	%	TLV Units
Potassium Iodide: (CAS No. 7681-11-0)	3.5%	None established.
Mercuric Chloride: (CAS No. 7487-94-7)	1.5%	0.1 mg/m^3 (as Hg compds.)
Potassium Hydroxide: (CAS No. 1310-58-3)	12%	2 mg/m^3 Ceiling

DANGER! CORROSIVE! POISON ☠ FATAL IF SWALLOWED.
CAUSES SEVERE BURNS TO SKIN, EYES AND MUCOUS MEMBRANES.

SECTION III PHYSICAL DATA

Melting Point (°F)	Freezing point unknown.	Specific Gravity (H_2O = 1)	Approx. 1.3 at 20°C
Boiling Point (°F)	Approx. 100°C (212°F)	Percent Volatile by Volume (%)	83%
Vapor Pressure (mm Hg)	14 mm (water)	Evaporation Rate (Ether =1)	Greater than 1.
Vapor Density (Air=1)	0.7 (water)		
Solubility in Water	Complete.		
Appearance & Odor	Clear, yellow (may contain sediment) liquid; no odor.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

			Lower	Upper
Flash Point (Method Used)	Non-flammable.	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 protective clothing to prevent contact with skin and eyes. Use care not to splatter or splash.

(1996 EMERGENCY RESPONSE GUIDEBOOK, DOT P 5800.7, GUIDE PAGE NO. 154)

UNUSUAL FIRE AND EXPLOSION HAZARDS

In fire conditions, water may evaporate from this solution and may cause hazardous and toxic decomposition products of mercury vapor, chlorine and iodine.

D.O.T. **Corrosive liquids, Toxic, n.o.s. , (Potassium hydroxide, Mercuric chloride), 8, UN 2922, PG II**

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

SECTION V HEALTH HAZARD DATA NN 60

Threshold Limited Value

None established for this compound by (ACGIH 1992-93).
TLV Computed based on data from (ACGIH 1992-93): 4.76 mg/m^3 (Air).

Effects of Overexposure

Causes severe burns to eyes, skin and mucous membranes. Its corrosive action on tissue causes burns and frequently deep ulceration with ultimate scarring. Inhalation as mist can cause damage to the upper respiratory tract and to lung tissue. The cardinal symptoms of mercury poisoning are stomatitis, tremors and psychic disturbances, excessive salivation and pain on chewing; in severe cases there may be gingivitis, with loosening of teeth and a dark line on the gum margins resembling the "lead line".

TARGET ORGANS AFFECTED:
Central nervous system, kidneys.

Emergency and First Aid Procedures

INGESTION: If swallowed, do **NOT** induce vomiting. If conscious, drink large quantities of milk or water. Call physician immediately. Never give anything by mouth to an unconscious person. **EYES:** Flush with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get prompt medical attention. **SKIN:** Remove all contaminated clothing. Flood skin with water, then wash with vinegar. **INHALATION AS MIST:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical attention.

SECTION VI REACTIVITY DATA

Stability			**Conditions to Avoid**
	Unstable		Protect from light, excessive temperature and heat.
	Stable	X	

Incompatibility (Materials to Avoid) Ammonia fumes, ammonium and amine type compounds.

Hazardous Decomposition Products When heated, emits toxic and corrosive fumes of mercury, iodine and chlorine.

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

Wearing suitable protective clothing, absorb spill with an inert dry material, sweep up and place in a suitable container for disposal. Wash spill area with soap and water.

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 an approved chemical landfill or contract with a licensed waste disposal agency.

SECTION VIII SPECIAL PROTECTION INFORMATION

Respiration Protection (Specify Type) None needed when working at room temperature and in the liquid state. At elevated temperatures or misty conditions, work in ventilation hood or wear a NIOSH/MSHA-approved respirator.

Ventilation				
	Local Exhaust	On heating or mist.	**Special**	No.
	Mechanical (General)	On heating or mist.	**Other**	No.

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

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

SECTION IX SPECIAL PRECAUTIONS

Precautions to be Taken in Handling & Storing

Keep container tightly closed when not in use.

Store in a cool place away from acids and ammonia fumes. 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 before reuse. Avoid contact with skin, eyes and clothing. Use with adequate ventilation.

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

Revision No. 4	Date 4/1/99	Approved Michael Raszeja	Chemical Safety Coordinator MR