

Science & Boreal Laboratories

777 East Park Drive
Tonawanda, NY 14150 6781
(716) 874-6020

Science Kit & Boreal
P.O. Box 5059
815 Fiero Lane
San Luis Obispo, CA 93403

Boreal Laboratories Ltd.
399 Vansickle Road
St Catharines, Ontario L2S 3T4

MSDS No.
Effective Date

NN 60
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MATERIAL SAFETY DATA SHEET

SECTION I		NAME	24 HOUR EMERGENCY ASSISTANCE									
Product	NESSLER'S REAGENT, SOLUTION		<div><div><div></div><div></div><div></div></div><div>CHEMTREC 800-424-9300 Day 716-226-6177 Night 716-334-4222</div><div>NFPA HAZARD RATING LEAST SUGHT MODERATE HIGH EXTREME 0 1 2 3 4</div></div>									
Chemical Synonyms	Nessler's Reagent, Solution											
Formula	KI/HgCl ₂ /NaOH											
Unit(s) Size	100, 500 ml.											
C.A.S. No.	None assigned											
			<table><tr><td>Health</td><td>3</td></tr><tr><td>Fire</td><td>0</td></tr><tr><td>Reactivity</td><td>1</td></tr></table>				Health	3	Fire	0	Reactivity	1
Health	3											
Fire	0											
Reactivity	1											

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES		
Principal Hazardous Component(s)	%	TLV Units
Potassium Iodide CAS No. 7681-11-0	3.5%	None established
Mercuric Chloride CAS No. 7487-94-7	1.5%	0.1mg/m ³ (Comps.)
Sodium Hydroxide Cas No. 1310-73-2	12%	2mg/m ³ Ceiling
DANGER! ☠ POISON ☠ CORROSIVE-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 ₂ O = 1)	Approx. 1.3 at 20° C
Boiling Point (°F)	Approx. 100° C	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				
Flash Point (Method Used)	Non-flammable (NA)	Flammable Limits in Air % by Volume NA	Lower ---	Upper ---
Extinguisher Media	Use any media suitable for extinguishing supporting fire.			

SPECIAL FIREFIGHTING PROCEDURES	In fire conditions, wear a NIOSH-approved self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. Use care not to splatter or splash.
UNUSUAL FIRE AND EXPLOSION HAZARDS	Fire or excessive heat may produce hazardous and toxic decomposition products of mercury vapor, chlorine and iodine.

D.O.T.	CORROSIVE LIQUID, N. O. S.
Approved by U.S. Department of Labor "essentially similar" to form OSHA-20	

SECTION V HEALTH HAZARD DATA

Threshold Limited Value

None established for this compound by (ACGIH 1983-84).
TLV Computed based on data from (ACGIH 1983-84): 4.76 mg/m³ (Air).

Effects of Overexposure

This material has a markedly corrosive action upon all body tissue. The symptoms of irritation from this material are frequently evident immediately. Its corrosive action on tissue causes burns and frequently deep ulceration with ultimate scarring. Causes severe burns to eyes, skin and mucous membranes. Inhalation as mist can cause damage to the upper respiratory tract and to lung tissue, depending upon the severity of the exposure. The cardinal symptoms of mercury poisoning are stomat-itis, tremors and psychic disturbances. Usually the first complaints are of excessive salivation and pain on chewing; in severe cases there may be ging-ivitis, with loosening of teeth and a dark line on the gum margins resembling the "lead line". In slow poisoning the salivation may be absent and the only complaint is dryness of the throat and mouth.

Emergency and First Aid Procedures

INGESTION: If swallowed, if conscious, drink large quantities of water. Follow with citrus fruit juice, if available. Call physician immediately. EYES: Flush with water for 15 minutes. Get prompt medical attention. SKIN: Remove all contaminated clothing. Flood skin with water, then wash with vinegar.

SECTION VI REACTIVITY DATA		
Stability	Unstable	Conditions to Avoid
	Stable	x Protect from light, excessive temperature and heat.
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	
	x	Not applicable.

SECTION VII SPILL OR LEAK PROCEDURES	
Steps to be taken in case material is released or spilled	Wearing suitable protective clothing, absorb in vermiculite, sand, earth, paper. Scoop up and place in a suitable container for disposal in an approved chemical landfill.

Waste Disposal Method	Discharge, treatment, or disposal may be subject to Federal, State or Local laws. Dispose of in an approved or approved for the disposal of catalyst or contract with a licensed waste disposal service.
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SECTION VIII SPECIAL PROTECTION INFORMATION				
Respiration Protection (Specify Type)	None needed when working at room temperature and in the liquid state. At elevated temp-eratures or mist conditions, work in ventilation hood or wear a NIOSH-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.		

SECTION IX SPECIAL PRECAUTIONS	
Precautions to be Taken in Handling & Storing	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.
Wash contaminated clothing before reuse.	

For laboratory use only. Not for drug, food or household use. Keep out of reach of children.			
Rev. No. No. 1	Date 1/12/87	Approved Alexander Piccirilli	Chemical Safety Coordinator AP
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