

OFI TESTING EQUIPMENT, INC.
MATERIAL SAFETY DATA SHEET

SECTION I - PRODUCT AND COMPANY IDENTIFICATION	
Chemical Name:	SODIUM HYDROXIDE SOLUTIONS, (<20%)
Trade Name:	CALCIUM BUFFER SOLUTION
OFI Part No.	205-14,205-14-01,205-14-2,205-14-3,205-14-4,205-14-5,205-14-6
Chemical Family:	SODIUM HYDROXIDE
Formula:	NaOH : H ₂ O
Manufacturer:	OFI Testing Equipment, Inc. 1006 West 34 th Street Houston, TX 77018 U.S.A. (713) 880-9885
In Case of Emergency Spills, Leaks, Fire, Exposure or Accident:	In the USA, call INFOTRAC at 1-800-535-5053 day or night Outside the USA, call collect, (352) 323-3500
SECTION II - HAZARD IDENTIFICATION	
Emergency Overview:	POISON! DANGER! CORROSIVE. MAY BE FATAL IF SWALLOWED. HARMFUL IF INHALED. CAUSES BURNS TO ANY AREA OF CONTACT. REACTS WITH WATER, ACIDS AND OTHER MATERIALS.
Inhalation:	Severe Irritant. Effects from Inhalation of Mist vary from Mild Irritation to Serious Damage of the Upper Respiratory Tract, Depending on Severity of Exposure. Symptoms may Include Sneezing, Sore Throat or Runny Nose. Severe Pneumonitis may Occur
Ingestion:	CORROSIVE! Symptoms may Include Severe Burns of Mouth, Throat, and Stomach. Severe Scarring of Tissue and Death may Result. Symptoms may Include Bleeding, Vomiting, Diarrhea, Fall in Blood Pressure. Damage may Appear Days after Exposure.
Skin:	CORROSIVE! Contact with Skin can Cause Irritation or Severe Burns and Scarring with Greater Exposures.
Eye Contact:	CORROSIVE! Causes Irritation of Eyes, and with Greater Exposures it can Cause Burns that May Result in Permanent Impairment of Vision, Even Blindness.
Chronic Exposure:	Prolonged Contact with Dilute Solutions or Dust has a Destructive Effect upon Tissue.
Aggravated by Exposure:	Persons with Pre-Existing skin Disorders or Eye Disease May be more Susceptible to the Effects of this Substance.
SECTION III - COMPOSITION / INFORMATION ON INGREDIENTS	
CAS #:	CHEMICAL NAME
1310-73-2	Sodium Hydroxide 15.0 to 17.0%
SECTION IV - FIRST AID MEASURES	
Inhalation:	Remove to Fresh Air. If not Breathing, Give Artificial Respiration. If Breathing is Difficult, Give Oxygen. Get Medical Attention.
Ingestion:	DO NOT INDUCE VOMITING! Give Large Quantities of Water. Never Give Anything by Mouth to an Unconscious Person. Get Medical Attention Immediately.
Skin:	Immediately Flush Skin with Plenty of Water for at Least 15 Minutes while Removing Contaminated Clothing and Shoes. Call Physician Immediately. Wash Clothing before Reuse.
Eyes:	Immediately Flush Eyes with Gentle but Large Stream of Water for at Least 15 Minutes, Lifting Lower and Upper Eyelids Occasionally. Get Medical Attention Immediately.
Note to Physician:	Perform Endoscopy in All Cases of Suspected Sodium Hydroxide Ingestion.
SECTION V - FIRE FIGHTING MEASURES	
Fire:	Not Considered to be a Fire Hazard. Hot or Molten Material can React Violently with Water. Can React with Certain Metal, such as Aluminum, to Generate Flammable Hydrogen Gas.
Explosion:	May Cause Fire and Explosions when in Contact with Incompatible Materials.
Fire Extinguishing Media:	Use any means Suitable for Extinguishing Surrounding Fire. Adding Water to Caustic Solution Generates Large Amounts of Heat.
Special Information:	In the Event of Fire, Wear Full Protective Clothing and NIOSH-Approved Self-Contained Breathing Apparatus with Full Facepiece Operated in the Pressure Demand or Other Positive Pressure Mode.
SECTION VI - ACCIDENTAL RELEASE MEASURES	
Ventilate area of Leak or Spill. Keep Unnecessary and Unprotected People away from the area of Spill. Wear Appropriate Personal Protective Equipment as Specified in Section 8. Contain and	

	Recover Liquid when Possible. Do not Flush Caustic Residues to the Sewer. Residues from Spills can be Diluted with Water, Neutralized with Dilute Acid such as Acetic, Hydrochloric or Sulfuric. Absorb Neutralized Caustic Residue on Clay, Vermiculite, or other Inert Substance and Package in a Suitable Container for Disposal. US Regulations (CERCLA) Require Reporting Spills and Releases to Soil, Water and Air in Excess of Reportable Quantities.
SECTION VII - HANDLING AND STORAGE	
	Keep in a Tightly closed Container. Protect from Physical Damage. Store in a Cool, Dry, Ventilated Area away from Sources of Heat, Moisture and Incompatibilities. Store above 60 °F (16 °C) to Prevent Freezing. Always add Caustic to Water while Stirring, Never the Reverse. Containers of this Material may be Hazardous when Empty since they Retain Product Residues (Vapors, Liquid). Do Not Store with Aluminum or Magnesium.
SECTION VIII - EXPOSURE CONTROL / PERSONAL PROTECTION	
Ventilation System:	A System of Local and/or General Exhaust is Recommended to Keep Employee Exposures Below the Airborne Exposure Limits. Local Exhaust Ventilation is Generally Preferred Because it can Control the Emissions of the Contaminant at its Source, Preventing Dispersion of it into the General Work Area.
Airborne Exposure Limits:	OSHA Permissible Exposure (PEL) 2 mg/m ³ (Ceiling)-ACGIH (TLV) 2 mg/m ³ (Ceiling)
Personal Respirators: (NIOSH APPROVED)	If the Exposure Limit is Exceeded, a Half-Face Dust/Mist Respirator May be Worn for up to Ten Times the Exposure Limit or the Maximum use Concentration Specified by the Appropriate Regulatory Agency or Respirator Supplier, Whichever is Lowest. A Full-Face piece Dust/Mist Respirator May be Worn up to 50 times the Exposure Limit or the Maximum use Concentration Specified by the Appropriate Regulatory Agency or Respirator Supplier, Whichever is Lowest.
Skin Protection:	Wear Impervious Protective Clothing, Including Boots, Apron, Gloves, Lab Coat or Coveralls, as Appropriate, to Prevent Skin Contact.
Eye Protection:	Use Chemical Safety Goggles and/or Full Face Shield where Splashing is Possible. Maintain Eye Wash Fountain and Quick-Drench Facilities in Work Area.
SECTION IX - PHYSICAL AND CHEMICAL PROPERTIES	
Appearance / Odor:	Clear, Colorless Solution / Odorless
Solubility:	Completely Miscible with Water
Specific Gravity:	approx. 1.22
pH:	14
% Volatiles by Vol.:	No Information Found
Melting Point:	24 °F (6 °C)
Boiling Point:	230 °F (110 °C)
Vapor Density (Air=1):	No Information Found
Vapor Pressure (mmHg):	13 @ 140 °F (60 °C) - 50% Solution
SECTION X - STABILITY AND REACTIVITY	
General Reactivity:	Stable Under Ordinary Conditions of Use and Storage.
Hazardous Decomposition:	Sodium Oxide. Decomposition by Reaction with Certain Metals Releases Flammable and Explosive Hydrogen Gas.
Incompatibilities:	Contact with Acids and Organic Halogen Compounds, Especially Trichloroethylene, may Cause Violent Reactions. Contact with Nitromethane and Other Similar Nitro Compounds Causes Formation of Shock-Sensitive Salts. Contact with Metals such as Aluminum, Magnesium, Tin, and Zinc cause Formation of Flammable Hydrogen Gas.
Hazardous Polymerization:	Will Not Occur.
SECTION XI - TOXICOLOGICAL INFORMATION	
	NTP Carcinogen - Known: No, IARC Category- None
SECTION XII - ECOLOGICAL INFORMATION	
	No Information Found.
SECTION XIII - DISPOSAL CONSIDERATIONS	
	Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste facility. Although not a listed RCRA hazardous waste, this material may exhibit one or more characteristics of a hazardous waste and require appropriate analysis to determine specific disposal requirements. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and

local requirements.

SECTION XIV - TRANSPORT INFORMATION

Shipping Name: SODIUM HYDROXIDE SOLUTION
Hazard Class: 8
Identification No.: UN1824 , Packing Group II

SECTION XV - REGULATORY INFORMATION

Chemical Inventory Status – Part 1:	Ingredient	TSCA	EC	Japan	Australia
	Sodium Hydroxide (1310-73-2)	Yes	Yes	Yes	Yes

Chemical Inventory Status – Part 2:	Ingredient	Korea	--Canada-- DSL	NDSL	Phil.
	Sodium Hydroxide (1310-73-2)	Yes	Yes	No	Yes

Federal, State & International Regulations – Part 1:	Ingredient	-SARA RQ	302-TPQ	-----SARA List	313- Chemical Catg.
	Sodium Hydroxide (1310-73-2)	No	No	No	No

Federal, State & International Regulations – Part 2:	Ingredient	CERCLA	-RCRA- 261.33	-TSCA- 8(d)
	Sodium Hydroxide (1310-73-2)	1000	No	No

Chemical Weapons

Convention: No
TSCA 12 (b): No
CDTA: No
SARA 311/312: Acute: Yes Chronic: Yes Fire: No Pressure: No Reactivity: Yes (Mixture / Liquid)
Australian Hazchem Code: None allocated.
Poison Schedule: None allocated.

SECTION XVI - OTHER INFORMATION

NFPA Rating: HEALTH-3, FLAMMABILITY-0, REACTIVITY-1
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