

U.S. DEPARTMENT OF LABOR
Occupational Safety and Health Administration

Form Approved
OMB No. 44-R1387

MATERIAL SAFETY DATA SHEET

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Required under USDL Safety and Health Regulations for Ship Repairing,
Shipbuilding, and Shipbreaking (29 CFR 1915, 1916, 1917)

August, 1977

SECTION I

MANUFACTURER'S NAME PPG Industries, Inc.		EMERGENCY TELEPHONE NO. (304) 843-1300
ADDRESS (Number, Street, City, State, and ZIP Code) One Gateway Center, Pittsburgh, PA 15222		
CHEMICAL NAME AND SYNONYMS Sodium Hydroxide		TRADE NAME AND SYNONYMS Liquid Caustic Soda, 50%
CHEMICAL FAMILY Alkali	FORMULA NaOH	

SECTION II - HAZARDOUS INGREDIENTS

PAINTS, PRESERVATIVES, & SOLVENTS	%	TLV (Units)	ALLOYS AND METALLIC COATINGS	%	TLV (Units)
PIGMENTS			BASE METAL		
CATALYST			ALLOYS		
VEHICLE			METALLIC COATINGS		
SOLVENTS			FILLER METAL PLUS COATING OR CORE FLUX		
ADDITIVES			OTHERS		
OTHERS					
HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES				%	TLV (Units)
Sodium Hydroxide				50	2mg/M³

SECTION III - PHYSICAL DATA

BOILING POINT (°F.) 50% NaOH	288-298	SPECIFIC GRAVITY (H ₂ O=1) @68°F 50%NaOH	1.525
VAPOR PRESSURE (mm Hg.) 50% NaOH	< 1	PERCENT, VOLATILE BY VOLUME (%)	N/A
VAPOR DENSITY (AIR=1)	N/A	EVAPORATION RATE (_____=1)	N/A
SOLUBILITY IN WATER	Appreciable(>10%) 347 g/100g water @ 100°C		
APPEARANCE AND ODOR	Water - white to slightly turbid liquid, no odor.		

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used) None	FLAMMABLE LIMITS N/A	LeI	Uel
EXTINGUISHING MEDIA N/A			
SPECIAL FIRE FIGHTING PROCEDURES N/A			
UNUSUAL FIRE AND EXPLOSION HAZARDS None			

SECTION V - HEALTH HAZARD DATA	
THRESHOLD LIMIT VALUE	2 mg/M ³ (OSHA)
EFFECTS OF OVEREXPOSURE Contact with body tissue causes severe burns; eye contact may cause blindness, swallowing can be fatal. Inhalation of mists causes severe irritation of respiratory tract.	
EMERGENCY AND FIRST AID PROCEDURES Contact: Immediately flush eyes or skin with plenty of water for at least 15 minutes. Call a physician. Swallowing: Give large amounts of water to drink and call a physician. DO NOT induce vomiting.	

SECTION VI - REACTIVITY DATA			
STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	X	
INCOMPATIBILITY (Materials to avoid) Organic materials, concentrated acids and some metals (see Section IX)--may cause violent reaction.			
HAZARDOUS DECOMPOSITION PRODUCTS None			
HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID
	WILL NOT OCCUR	X	

SECTION VII - SPILL OR LEAK PROCEDURES	
STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED Dike area to contain spill. Use vacuum trucks (where practical) to pick up spill for controlled disposal or recovery. Neutralize any remaining materials with dilute acid. Use caution--heat release occurs; could cause violent spattering.	
WASTE DISPOSAL METHOD Neutralized solutions should be diluted with plenty of water and flushed to the sewer. Contact local waste disposal contractor for disposal of unneutralized material.	

SECTION VIII - SPECIAL PROTECTION INFORMATION		
RESPIRATORY PROTECTION (Specify type) NIOSH/MSHA-approved mechanical filter type for exposure to mists above TLV		
VENTILATION	LOCAL EXHAUST X	SPECIAL
	MECHANICAL (General)	OTHER
PROTECTIVE GLOVES Rubber Gloves		EYE PROTECTION Close fitting chemical safety goggles and face shield
OTHER PROTECTIVE EQUIPMENT Rubber apron, rubber boots, plastic hard hat, PVC clothing, eye-wash fountain, safety shower		

SECTION IX - SPECIAL PRECAUTIONS	
PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING Do not get in eyes, on skin, on clothing; avoid breathing mists; do not take internally; wear protective equipment whenever handling.	
OTHER PRECAUTIONS Do not store in magnesium, zinc (galvanized), tin, chromium, brass, bronze or aluminum. Maintain storage temperature between 75°F and 140°F, in steel equipment.	

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December, 1977

SECTION I

MANUFACTURER'S NAME PPG Industries, Inc.		EMERGENCY TELEPHONE NO. (304) 843-1300
ADDRESS (Number, Street, City, State, and ZIP Code) One Gateway Center, Pittsburgh, PA 15222		
CHEMICAL NAME AND SYNONYMS Sodium Hydroxide		TRADE NAME AND SYNONYMS Liquid Caustic Soda 73%
CHEMICAL FAMILY Alkali	FORMULA NaOH	

SECTION II - HAZARDOUS INGREDIENTS

PAINTS, PRESERVATIVES, & SOLVENTS	%	TLV (Units)	ALLOYS AND METALLIC COATINGS	%	TLV (Units)
PIGMENTS			BASE METAL		
CATALYST			ALLOYS		
VEHICLE			METALLIC COATINGS		
SOLVENTS			FILLER METAL PLUS COATING OR CORE FLUX		
ADDITIVES			OTHERS		
OTHERS					
HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES				%	TLV (Units)
Sodium Hydroxide				73	2mg/M ³

SECTION III - PHYSICAL DATA

BOILING POINT (°F.)	73% NaOH	370	SPECIFIC GRAVITY (H ₂ O=1) (194/194°F)	1.706
VAPOR PRESSURE (mm Hg.)	73% NaOH	< 1	PERCENT VOLATILE BY VOLUME (%)	N/A
VAPOR DENSITY (AIR=1)		N/A	EVAPORATION RATE (_____ =1)	N/A
SOLUBILITY IN WATER	Appreciable(>10%) 347 g/100g water @ 100°C			
APPEARANCE AND ODOR	Water - white to slightly turbid liquid, no odor.			

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS	N/A	Lel	Uel
EXTINGUISHING MEDIA	N/A				
SPECIAL FIRE FIGHTING PROCEDURES	N/A				
UNUSUAL FIRE AND EXPLOSION HAZARDS	None				

SECTION V - HEALTH HAZARD DATA	
THRESHOLD LIMIT VALUE	2 mg/M ³ (OSHA)
EFFECTS OF OVEREXPOSURE Contact with body tissue causes severe burns; eye contact may cause blindness, swallowing can be fatal. Inhalation of mists causes severe irritation of respiratory tract.	
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VENTILATION	LOCAL EXHAUST X	SPECIAL
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PROTECTIVE GLOVES Rubber Gloves	EYE PROTECTION Close fitting chemical safety goggles and face shield	
OTHER PROTECTIVE EQUIPMENT Rubber apron, rubber boots, plastic hard hat, PVC clothing, eye-wash fountain, safety shower.		

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PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING Do not get in eyes, on skin, on clothing; avoid breathing mists; do not take internally; wear protective equipment whenever handling.	
OTHER PRECAUTIONS Do not store in magnesium, zinc (galvanized), tin, chromium, brass, bronze or aluminum. Maintain storage temperature between 180°F and 200°F in lined steel	