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

Form Approved
OMB No. 44-R1387

MATERIAL SAFETY DATA SHEET

Required under USDL Safety and Health Regulations for Ship Repairing, Shipbuilding, and Shipbreaking (29 CFR 1915, 1916, 1917) September, 1978

SECTION I

MANUFACTURER'S NAME	EMERGENCY TELEPHONE NO.
PPG Industries, Inc.	(304) 843-1300
ADDRESS (Number, Street, City, State, and ZIP Code) One Gateway Center, Pittsburgh, PA 15222	
CHEMICAL NAME AND SYNONYMS Anhydrous NaOH, Solid Sodium Hydroxide, Anhydrous Caustic	TRADE NAME AND SYNONYMS Pels®
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	100	2 mg/M³

SECTION III - PHYSICAL DATA

BOILING POINT (°C)	1390	SPECIFIC GRAVITY (H_2O=1)	2.130
VAPOR PRESSURE (mm Hg.)	N/A	PERCENT, VOLATILE BY VOLUME (%)	N/A
VAPOR DENSITY (AIR=1)	N/A	EVAPORATION RATE (_____ =1)	N/A
SOLUBILITY IN WATER	appreciable		
APPEARANCE AND ODOR	White to slightly colored solid, no odor		

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

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

(Continued on reverse side)

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SECTION V · HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE
2 Mg/M^3 (dust) -8-hour TWA (OSHA-29CFR 1910.1000) May 28, 197

EFFECTS OF OVEREXPOSURE
See Attached Sheet

EMERGENCY AND FIRST AID PROCEDURES
See Attached Sheet

SECTION VI · REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		Contact/contamination with materials listed below
	STABLE	X	

INCOMPATABILITY *(Materials to avoid)*
Organic materials, aluminum, chromium, magnesium, tin, zinc(galvanized), brass, bronze

HAZARDOUS DECOMPOSITION PRODUCTS Contact with the above metals in the presence of moisture may generate hydrogen which is explosive.

HAZARDOUS POLYMERIZATION			CONDITIONS TO AVOID
	MAY OCCUR		
	WILL NOT OCCUR	X	

SECTION VII · SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED
Spilled material may be shoveled up, followed by flushing with water. Dilute acid may be used to neutralize final traces immediately after flushing.

WASTE DISPOSAL METHOD
Waste caustic soda solution should not be discharged into sewers or streams. Caustic should first be neutralized with dilute acid and then well diluted with water. Otherwise, contact local waste disposal contractor.

SECTION VIII · SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION *(Specify type)*
NIOSH/MESA-approved dust-type respirator.

VENTILATION		
	LOCAL EXHAUST Sufficient to maintain dust levels below TLV	SPECIAL
	MECHANICAL *(General)*	OTHER

PROTECTIVE GLOVES	EYE PROTECTION
Rubber gloves, PVC	Close fitting safety goggles are required

OTHER PROTECTIVE EQUIPMENT
Rubber boots with safety toes, rubber aprons, PVC clothing, plastic "hard" hat, eye wash fountain, safety shower

SECTION IX · SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING
Extremely corrosive to skin -- See Attached Sheet

OTHER PRECAUTIONS
Wear protective clothing -- See Attached Sheet

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ADDENDUM TO MATERIAL SAFETY DATA SHEET ON PELS[R] - CAUSTIC SODA BEADS

(SEPTEMBER, 1978)

SECTION V - EFFECTS OF OVEREXPOSURE

EYE CONTACT - Causes severe burns; small quantities can result in permanent damage or loss of vision.

SKIN CONTACT - Corrosive action causes burns and frequently deep ulceration with ultimate scarring. Prolonged contact destroys tissue. Dust or mist from solutions can cause irritant dermatitis.

SWALLOWING - Ingestion either in solid or liquid form can cause very serious damage to the mucous membranes or other tissues with which contact is made, and may be fatal.

INHALATION - Inhalation of dusts or mists can cause damage to the upper respiratory tract and to the lung tissue depending on severity of exposure. Effects can range from mild irritation of mucous membranes to severe pneumonitis.

Emergency and First Aid Procedures

EYE/SKIN CONTACT

Immediately flush eyes and skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Call a physician. Thoroughly clean contaminated clothing and shoes before reuse, or discard.

SWALLOWING

Drink a quart of water. DO NOT induce vomiting. Take immediately to a hospital or physician. Never give anything by mouth to an unconscious person.

SECTION IX - SPECIAL PRECAUTIONS

Handling and Storing

- Keep containers closed when not in use.
- Drums and bags should be stored in a dry place indoors.
- Wear safety equipment (Section VIII) when handling Pels[R].
- When making solutions, add Pels[R] slowly to surface of cold water while stirring, to avoid violent spattering.

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Other Precautions

- Avoid contact with eyes, skin or clothing.
- Avoid breathing dusts or mists.
- Use with adequate ventilation.
- Do not take internally.
- Wash thoroughly after handling.

REFERENCES

1. Dangerous Properties of Industrial Materials, N. Irving Sax, Fourth Edition, 1975

2. Occupational Exposure to Sodium Hydroxide, NIOSH, 1975