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Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS, GHS & 1272/2008/EC Standards SDS Revision: 2.0 SDS Revision Date: 3/14/2017

		1. PRODUCT & COMPANY IDENTIFICATION		
1.1	Product Name:	PRESTO BLACK [®] PBA		
1.2	Chemical Name:	Acid Mixture		
1.3	Synonyms:	580150, 580151		
1.4	Trade Names:	Presto Black® PBA		
1.5	Product Use:	kening Solution for Iron & Steel		
1.6	Distributor's Name:	Birchwood Laboratories LLC		
1.7	Distributor's Address:	7900 Fuller Road, Eden Prairie, MN 55344 USA		
1.8	Emergency Phone:	ChemTrec +1 (800) 424-9300 / +1 (703) 527-3887 or Poison Control Center +1 (855) 281-1742		
1.9	Business Phone / Fax:	+1 (952) 937-7900 / +1 (952) 937-7979		
2.1	Hazard Identification:	2. HAZARDS IDENTIFICATION		
		This product is classified as a hazardous substance and as dangerous goods according to the classification criteria [NOHSC: 1088 (2004)] and ADG Code (Australia). DANGER! CAUSES SEVERE SKIN BURNS AND EYE DAMAGE. HARMFUL IF SWALLOWED. MAY CAU RESPIRATORY IRRITATION. VERY TOXIC TO AQUATIC LIFE WITH LONG LASTING EFFECTS. Classification: Skin Corrosion 1B; Acute Tox. 4; Acute ToxOral 3; STOT SE 2; Chronic Aquatic Toxicity 1		
2.2	Label Elements:	Hazard Statements (H):H314 – Causes severe skin burns and eye damage. H302 – Harmful if swallowed. H335 – May cause respiratory irritation. H410 – Very toxic to aquatic life with long lasting effects. Precautionary Statements (P):P260 – Do not breathe dust or mist. P264 – Wash thoroughly with soap and water after handling. P270 – Do not eat drink or smoke when using this product. P271 – Use only outdoors or in a well-ventilated area. P273 – Avoid release to the environment. P280 – Wear protective gloves/ eye and face protection. P301+P330+P331 – IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. P303+P361+P353 – IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. P332+P313 – If skin irritation occurs: Get medical advice/attention. P363 – Wash contaminated clothing before reuse. P304+P340 – IF INHALED: Remove person to fresh air at once and keep comfortable for breathing. P310 – Immediately call a POISON CENTER/doctor. P321 Specific treatments see this container label.		
2.3	Other Warnings:	P305+P351+P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337+P313 – If eye irritation persist: Get medical advice/attention. P391 – Collect spillage. P403+P233 – Store in a well ventilated place. Keep container tightly closed. P405 – Store locked up. P501 - Dispose of contents/container to an approved waste disposal plant. In the event of an exposure or medical inquiry involving this product, please contact a physician or local poison con center, who may seek advice from the U.S. manufacturer, and show them this SDS. Keep out of reach of children.		
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Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS, GHS & 1272/2008/EC Standards SDS Revision Date: 3/14/2017 SDS Revision: 2.0 4. FIRST AID MEASURES - cont'd 4.3 Symptoms of Overexposure: Redness, burning, irritation, and swelling around eyes Eyes: Skin: Redness, burning, itching, rash, blistering of skin. Nausea, vomiting, severe abdominal pain. Ingestion: Coughing, wheezing, swelling of throat, irritation in mucous membranes, difficulty breathing. 4.4 Acute Health Effects: May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract. May be harmful if swallowed. Causes burns. May be harmful if absorbed through skin. Chronic Health Effects: 4.5 May damage the nervous system, kidney and/or liver. 4.6 Target Organs Eyes, skin, nervous system, kidneys, liver, respiratory system. 4.7 Medical Conditions Pre-existing dermatitis, other skin conditions, and disorders of the target HEALTH 3 Aggravated by Exposure: organs (eyes, skin, and respiratory system) or impaired kidney function **FLAMMABILITY** 0 may be more susceptible to the effects of this substance. 1' **PHYSICAL HAZARDS** 0 PROTECTIVE EQUIPMENT EYES SKIN LUNGS 4.8 Notes to Physician: This product contains Selenious Acid and is potentially fatal if ingested even in small amounts. 24-hour admission should be considered in asymptomatic or minimally symptomatic patients as delayed toxic effects including pulmonary edema and multi-organ failure may occur. 24/7 medical toxicology consultation is available at +1 (855) 281-1742 5. FIREFIGHTING MEASURES 5.1 Fire & Explosion Hazards Non-flammable. May react with metals to release hydrogen gas, which can form explosive mixtures with air. May intensity fire; oxidizer. Keep/Store away from clothing/ combustible materials. Extinguishing Methods: 52 Use fire-extinguishing media appropriate for surrounding materials. 5.3 Firefighting Procedures: As with any fire, firefighters should wear appropriate protective equipment including a MSHA/NIOSH approved or equivalent self-contained breathing apparatus (SCBA) and protective clothing. Fight fires as for surrounding materials. Hazardous decomposition products may be released. Thermal degradation may produce oxides of carbon, phosphorous, selenium and/or nitrogen, hydrocarbons and/or derivatives. Fire should be fought from a safe distance. Keep containers cool until well after the fire is out. Use water spray to cool fire-exposed surfaces and to protect personal. Fight fire upwind. Prevent runoff from fire control or dilution from entering sewers, drains, drinking water supply, or any natural waterway. 6. ACCIDENTAL RELEASE MEASURES 6 1 Spills: Before cleaning any spill or leak, individuals involved in spill cleanup must wear appropriate Personal Protective Equipment (PPE). Use safety glasses or safety goggles and face shield; use gloves and other protective clothing (e.g., apron, boots, etc.) to prevent skin contact. Small Spills: Wear appropriate protective equipment including gloves and protective eyewear. Use a non-combustible, inert material such as vermiculite or sand to soak up the product and place into a container for later disposal. Large Spills: Keep incompatible materials (e.g., organics such as oil) away from spill. Stay upwind and away from spill or release. Isolate immediate hazard area and keep unauthorized personnel out of area. Stop spill or release if it can be done with minimal risk. Wear appropriate protective equipment including respiratory protection as conditions warrant. Recover as much free liquid as possible and collect in acid-resistant container. Use absorbent to pick up residue. Avoid discharging liquid directly into a sewer or surface waters. 7. HANDLING & STORAGE INFORMATION Avoid breathing mists or spray. Avoid eye and skin contact. Wear protective equipment when handling product. Keep out Work & Hygiene Practices: of the reach of children. Do not eat, drink or smoke when handling this product. Wash thoroughly after handling. Do not expose to heat and flame. Use only in ventilated areas. Keep out of the reach of children. Immediately clean-up and decontaminate any spills or residues. 7.2 Storage & Handling: Use and store in a cool, dry, well-ventilated location (e.g., local exhaust ventilation, fans) away from heat and direct sunlight. Store in acid-resistant containers. Keep containers covered when not in use. Avoid temperatures above 40°C (120°F). Keep away from incompatible substances (see Section 10). Protect containers from physical damage. 7.3 Special Precautions: Empty containers may retain hazardous product residues. Keep/Store away from clothing/ combustible materials. 8. EXPOSURE CONTROLS & PERSONAL PROTECTION OTHER .8.1 Exposure Limits: **ACGIH** NOHSO OSHA ppm (mg/m³) FS. FS-CHEMICAL NAME(S) PEAK IDLH STEL ES-TWA PEL STEL TLV STEL PHOSPHORIC ACID (1) (3) NF NF NF NA NA 1000 COPPER CHLORIDE NF NF NF NA NA NA 8.2 Ventilation & Engineering Use local or general exhaust ventilation to effectively remove and prevent buildup of vapors or mist generated from the Controls: handling of this product. Ensure appropriate decontamination equipment is available (e.g., sink, safety shower, eye-wash station).



12.3

Effects on Aquatic Life

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Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS, GHS & 1272/2008/EC Standards SDS Revision Date: 3/14/2017 SDS Revision: 2.0 8. EXPOSURE CONTROLS & PERSONAL PROTECTION – cont'd Respiratory Protection: 8.3 In instances where vapors or sprays of this product are generated, and respiratory protection is needed, use only protection authorized by 29 CFR §1910.134, applicable U.S. State regulations, or the Canadian CAS Standard Z94.4-93 and applicable standards of Canadian Provinces, EC member States, or 8.4 Eye Protection: Safety glasses with side shields must be used when handling or using this product. A protective face shield is also recommended. 8.5 Hand Protection: Wear protective, chemical-resistant gloves (e.g., neoprene) when using or handling this product. Body Protection: 8.6 A chemical resistant apron and/or protective clothing are recommended when handling or using this product. 9. PHYSICAL & CHEMICAL PROPERTIES 9.1 Appearance: Blue green liquid 92 Odor Slight sharp odor 9.3 Odor Threshold: NA 9.4 < 1.0 Melting Point/Freezing Point: 9.5 NA Initial Boiling Point/Boiling 9.6 > 100 °C (> 212 °F) Range: 9.7 Flashpoint NA 9.8 Upper/Lower Flammability NA 9.9 Vapor Pressure: NA 9.10 Vapor Density < 1.0 (air = 1.0)9.11 Relative Density: 1.108 9.12 Solubility: Complete (water) 9.13 Partition Coefficient (log Pow): NA 9.14 Autoignition Temperature: NA 9.15 Decomposition Temperature: NA 9.16 Viscosity NA 9.17 Other Information: Evaporation Rate: < 1.0 (ethyl ether = 1.0) 10. STABILITY & REACTIVITY 10.1 Stability: Stable at normal temperatures. 10.2 Hazardous Decomposition Reaction with organics and strong reducing agents can produce organoselenides and hydrogen selenide. Thermal Products decomposition may produce selenium, nitrogen, phosphoric and copper oxides. 10.3 Hazardous Polymerization: Will not occur. Conditions to Avoid: 10.4 Excessive heat, shock, friction. 10.5 Incompatible Substances Cyanides, water-reactive substances, strong reducing agents, chlorinated cleaners or sanitizers, combustible organic materials, most metals 11. TOXICOLOGICAL INFORMATION Inhalation: YES Routes of Entry: Absorption: YES Ingestion: 11.1 NO Toxicity Data: 11.2 Phosphoric Acid: LD₅₀ (oral, rat) = 1530 mg/kg Acute Toxicity: 11.3 See Section 2.4 11.4 Chronic Toxicity: See Section 2.5 Suspected Carcinogen Components in this product are listed by IARC as Group 3 (Not classifiable as to its carcinogenicity to humans) 11.5 This product is not reported to cause reproductive toxicity in humans. 11.6 Reproductive Toxicity: Mutagenicity: This product is not reported to produce mutagenic effects in humans. Embryotoxicity This product is not reported to produce embryotoxic effects in humans Teratogenicity: This product contains nickel sulfate, which is reported to cause teratogenic effects in humans. Reproductive Toxicity: This product is not reported to cause reproductive effects in humans Irritancy of Product: 11.7 See Section 4.2 Biological Exposure Indices 11.8 NE Physician Recommendations: 11.9 Treat symptomatically. 12. ECOLOGICAL INFORMATION There are no specific data available for this product. 12.1 **Environmental Stability** 12.2 Effects on Plants & Animals There are no specific data available for this product.

Very toxic to aquatic life with long lasting effects.



Other Requirements:

15.8

NA

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	13. DISPOSAL CONSIDERATIONS
Waste Disposal:	Review current local, state and federal laws, codes, statutes and regulations to determine current status and appropriate disposal method for the ingredients listed in Section 2. Any disposal practice must be in compliance with local, state, and federal laws and regulations. Contact the appropriate agency for specific information. Treatment, transport, storage and disposal of hazardous waste must be provided by a licensed facility or waste hauler.
Special Considerations:	U.S. EPA Hazardous Waste – Characteristic - Corrosive (D002), Characteristic - Toxic (D010)
	14. TRANSPORTATION INFORMATION
	ber, proper shipping name, hazard class & division, packing group) is shown for each mode of transportation. Additional required by 49 CFR, IATA/ICAO, IMDG and the CTDGR.
	UN3264, CORROSIVE LIQUIDS, ACIDIC, INORGANIC, N.O.S. (PHOSPHORIC ACID), 8, III, LTD QTY (IP VOL ≤ 5.0 L)
	UN3264, CORROSIVE LIQUIDS, ACIDIC, INORGANIC, N.O.S. (PHOSPHORIC ACID), 8, III, LTD QTY (IP VOL ≤ 0.5 L)
	UN3264, CORROSIVE LIQUIDS, ACIDIC, INORGANIC, N.O.S. (PHOSPHORIC ACID), 8, III, LTD QTY (IP VOL ≤ 5.0 L) Marine Pollutant: Copper Phosphate
TDGR (Canadian GND):	UN3264, CORROSIVE LIQUIDS, ACIDIC, INORGANIC, N.O.S. (PHOSPHORIC ACID), 8, III, LTD QTY (IP VOL ≤ 5.0 L)
ADR/RID (EU):	UN3264, CORROSIVE LIQUIDS, ACIDIC, INORGANIC, N.O.S. (PHOSPHORIC ACID), 8, III, LTD QTY (IP VOL ≤ 5.0 L)
	UN3264, LIQUIDOS, CORROSIVOS, ACIDO, INORGANICO, N.E.P. (ACIDO PHOSPHORIC), 8, III, CANTIDAD LIMITADA (IP VOL ≤ 5.0 L)
	UN3264, CORROSIVE LIQUIDS, ACIDIC, INORGANIC, N.O.S. (PHOSPHORIC ACID), 8, III, LTD QTY (IP VOL ≤ 5.0 L)
	15. REGULATORY INFORMATION
SARA Reporting Requirements	This product contains Copper Chloride and Phosphoric Acid, substances subject to SARA Title III, section 313 reporting requirements.
SARA TPQ:	NA NA
TSCA Inventory Status:	The components of this product are listed on the TSCA Inventory.
CERCLA Reportable Quantity:	Phosphoric Acid: 5,000 lbs (2,270 kg)
	NA NA
Other Canadian Regulations:	This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR. The components of this product are listed on the DSL/NDSL. None of the components of this product are listed on the Priorities Substances List. WHMIS Class E (Corrosive Material). WHMIS Class D1 (Materials Causing Immediate and Serious Toxic Effects).
State Regulatory Information:	Phosphoric Acid is found on the following state criteria lists: Florida Toxic Substances List (FL), Massachusetts Hazardous Substances List (MA), Minnesota Hazardous Substances List (MN) and Pennsylvania Right-to-Know List (PA). Copper Chloride is found on the following state criteria list: MA, NJ and PA. No other ingredients in this product, present in a concentration of 1.0% or greater, are listed on any of the following state criteria lists: California Proposition 65 (CA65), Delaware Air Quality Management List (DE), Florida Toxic Substances List (FL), Massachusetts Hazardous Substances List (MA), Michigan Critical Substances List (MI) Minnesota Hazardous Substances List (MN), New Jersey Right-to-Know List (NJ), New York Hazardous Substances List (NY), Pennsylvania Right-to-Know List (PA), Washington Permissible Exposures List (WA), Wisconsin Hazardous
	basic description (ID Numbriptive information may be 49 CFR (GND): IATA (AIR): IMDG (OCN): TDGR (Canadian GND): ADR/RID (EU): SCT (MEXICO): ADGR (AUS): SARA Reporting Requirements: SARA TPQ: TSCA Inventory Status: CERCLA Reportable Quantity: Other Federal Requirements: Other Canadian Regulations:



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		16. OTHER INFO	DRMATION	
16.1	Other Information:	RESPIRATORY IRRITAITON. VERY TOXIC TO burns to eyes and skin. Avoid excessive heat immediately with plenty of water and seek medical process.	ES SEVERE SKIN BURNS AND EYE DAMAGE. MAY CAUSE DAQUATIC LIFE WITH LONG LASTING EFFECTS. Causes severe. Do not breathe dust/fumes. In case of contact with eyes, rinse al advice. Wear suitable protective clothing. Keep away from heat, hot sources. No smoking. KEEP LOCKED UP AND OUT OF REACH OF	
16.2	Terms & Definitions:	See last page of this Safety Data Sheet.		
16.3	Disclaimer:	This Safety Data Sheet is offered pursuant to OSHA's Hazard Communication Standard, 29 CFR §1910.1200. Other government regulations must be reviewed for applicability to this product. To the best of ShipMate's & Birchwood Technologies' knowledge, the information contained herein is reliable and accurate as of this date; however, accuracy, suitability or completeness is not guaranteed and no warranties of any type, either expressed or implied, are provided. The information contained herein relates only to the specific product(s). If this product(s) is combined with other materials, all component properties must be considered. Data may be changed from time to time. Be sure to consult the latest edition.		
16.4	Prepared for:	Birchwood Technologies 7900 Fuller Road Eden Prairie, MN 55344 USA Tel: +1 (952) 937-7900 Fax: +1 (952) 937-7979 http://www.birchwoodtechnologies.com	BIRCHWOOD® TECHNOLOGIES	
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Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS, GHS & 1272/2008/EC Standards

SDS Revision: 2.0

SDS Revision Date: 3/14/2017

DEFINITION OF TERMS

A large number of abbreviations and acronyms appear on a SDS. Some of these that are commonly used include the following:

GENERAL INFORMATION:

CAS No.	Chemical Abstract Service Number
RTECS No.	Registry of Toxic Effects of Chemical Substances Number
EINECS No.	European Inventory of Existing Commercial Chemical Substances Number

EXPOSURE LIMITS IN AIR:

ACGIH	American Conference on Governmental Industrial Hygienists	
IDLH	Immediately Dangerous to Life and Health	
NOHSC	National Occupational Health and Safety Commission (Australia)	
OSHA	J.S. Occupational Safety and Health Administration	
PEL	Permissible Exposure Limit	
STEL	Short Term Exposure Limit	
TLV	Threshold Limit Value	
TWA	Time Weighted Average	

FIRST AID MEASURES:

CPR	Cardiopulmonary resuscitation - method in which a person whose heart has
	stopped receives manual chest compressions and breathing to circulate blood
	and provide oxygen to the body.

HAZARDOUS MATERIALS IDENTIFICATION SYSTEM: HMIS

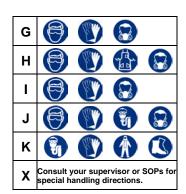
HEALTH, FLAMMABILITY & REACTIVITY RATINGS:

0	Minimal Hazard
1	Slight Hazard
2	Moderate Hazard
3	Severe Hazard
4	Extreme Hazard



PERSONAL PROTECTION RATINGS:

Α			
В			
С		THE STATE OF THE S	
D	(EL)	THE STATE OF THE S	
Е			
F		TH.	





OTHER STANDARD ABBREVIATIONS:

Carc	Carcinogenic
	Ÿ
Irrit	Irritant
NA	Not Available
NR	No Results
ND	Not Determined
NE	Not Established
NF	Not Found
SCBA	Self-Contained Breathing Apparatus
Sens	Sensitization
STOT RE	Specific Target Organ Toxicity – Repeat Exposure
STOT SE	Specific Target Organ Toxicity – Single Exposure

NATIONAL FIRE PROTECTION ASSOCIATION: NFPA

FLAMMABILITY LIMITS IN AIR:		
Autoignition Temperature	Minimum temperature required to initiate combustion in air with no other source of ignition	
LEL	Lower Explosive Limit - lowest percent of vapor in air, by volume, that will explode or ignite in the presence of an ignition source	
UEL	Upper Explosive Limit - highest percent of vapor in air, by volume, that will explode or ignite in the presence of an ignition source	

HAZARD RATINGS:

0	Minimal Hazard	FLAMMABILITY
1	Slight Hazard	\ \
2	Moderate Hazard	REACTIVITY
3	Severe Hazard	
4	Extreme Hazard	
ACD	Acidic	
ALK	Alkaline	
COR	Corrosive	/ Y W Y
W	Use No Water	HEALTH
ох	Oxidizer	SPECIAL
TREFOIL	Radioactive	PRECAUTIONS

TOXICOLOGICAL INFORMATION:

Lethal Dose (solids & liquids) which kills 50% of the exp LC 50 Lethal concentration (gases) which kills 50% of the exp ppm Concentration expressed in parts of material per million TD 10 Lowest dose to cause a symptom	osed animal
ppm Concentration expressed in parts of material per million	
	parts
TD _{Io} Lowest dose to cause a symptom	
TCLo Lowest concentration to cause a symptom	
TD _{Io} , LD _{Io} , & LD _o or Lowest dose (or concentration) to cause lethal or toxic	effects
TC, TC _o , LC _{io} , & LC _o	
IARC International Agency for Research on Cancer	
NTP National Toxicology Program	
RTECS Registry of Toxic Effects of Chemical Substances	
BCF Bioconcentration Factor	
TL _m Median threshold limit	
log Kow or log Koc Coefficient of Oil/Water Distribution	

REGULATORY INFORMATION:

WHMIS	Canadian Workplace Hazardous Material Information System				
DOT	U.S. Department of Transportation				
TC	Transport Canada				
EPA	U.S. Environmental Protection Agency				
DSL	Canadian Domestic Substance List				
NDSL	Canadian Non-Domestic Substance List				
PSL	Canadian Priority Substances List				
TSCA	U.S. Toxic Substance Control Act				
EU	European Union (European Union Directive 67/548/EEC)				
WGK	Wassergefährdungsklassen (German Water Hazard Class)				

WORKPLACE HAZARDOUS MATERIALS IDENTIFICATION (WHMIS) SYSTEM:

0	®		②	Θ	(%)		
Class A	Class B	Class C	Class D1	Class D2	Class D3	Class E	Class F
Compressed	Flammable	Oxidizing	Toxic	Irritation	Infectious	Corrosive	Reactive

CLP/GHS (1272/2008/EC) PICTOGRAMS:

			\Diamond			\Leftrightarrow		*
GHS01	GHS02	GHS03	GHS04	GHS05	GHS06	GHS07	GHS08	GHS09
Explosive	Flammable	Oxidizer	Pressurized	Corrosive	Toxic	Harmful Irritating	Health Hazard	Environment