

**MATERIAL SAFETY DATA SHEET**  
REQUIRED UNDER SAFETY AND HEALTH REGULATION FOR SHIP REPAIRING

DATE UPDATED: MARCH 21, 2016

**SECTION 1. ----- CHEMICAL IDENTIFICATION -----**

**Product Name**                PBS Tablets, 100ml  
**Product Code(s)**            PD0435  
**Recommended Use**        For Further Manufacturing Use Only  
    Not for Human or Animal Drug Use

**SECTION 2. ----- COMPOSITION/INFORMATION ON INGREDIENTS -----**

Chemical Name	EC No.	REACH Reg. No.	CAS-No	Weight %	Classification
Sodium Chloride	EEC No. 231-598-3	Not available	7647-14-5	>1	Xi;R36/37/38
Sodium Phosphate	EEC No. 231-448-7	Not available	7558-79-4	>1	-
Potassium phosphate	EEC No. 231-913-4	Not available	7778-77-0	>1	-
Potassium Chloride	EEC No. 231-211-8	Not available	7447-40-7	>1	-

**SECTION 3. ----- HAZARDS IDENTIFICATION -----**

**GHS – Classification**

**Classification**            Skin Irritant 2 Eye Irritant 2  
**Signal Word**                Warning



**Hazard Statements**        H315 - Causes skin irritation H319 - Causes serious eye irritation H335 - May cause respiratory irritation  
**Precautionary Statements** P280 - Wear protective gloves/protective clothing/eye protection/face protection  
 P302+ P352 - IF ON SKIN: Wash with plenty of soap and water P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

**SECTION 4. ----- FIRST-AID MEASURES -----**

**Eye Contact**                Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.  
**Skin Contact**                Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes.  
**Inhalation**                    Move to fresh air. If not breathing, give artificial respiration.  
**Ingestion**                    Clean mouth with water and afterwards drink plenty of water.  
**Notes to Physician**        Treat symptomatically

**SECTION 5. ----- FIRE FIGHTING MEASURES -----**

<b>Flammable Properties</b>	Not flammable
<b>Flash Point</b>	Not determined
<b>Suitable Extinguishing Media</b>	Use extinguishing media appropriate to surrounding fire conditions.
<b>Hazardous Combustion Products</b>	No information available.
<b>Explosion Data</b>	
<b>Sensitivity to Mechanical Impact</b>	Not sensitive
<b>Sensitivity to Static Discharge</b>	Not sensitive
<b>Protective Equipment and Precautions for Firefighters</b>	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

**SECTION 6. ----- ACCIDENTAL RELEASE MEASURES-----**

<b>Personal Precautions</b>	Avoid contact with skin, eyes and clothing. Use personal protective equipment. Ensure adequate ventilation.
<b>Methods for Containment</b>	Prevent further leakage or spillage if safe to do so
<b>Methods for Cleaning Up</b>	Avoid dust formation. Pick up and transfer to properly labeled containers. Ventilate area and wash spill site after material pickup is complete.

**SECTION 7. ----- HANDLING AND STORAGE-----**

<b>Handling</b>	Handle in accordance with good industrial hygiene and safety practice. Hygroscopic.
<b>Storage</b>	Keep containers tightly closed in a dry, cool and well-ventilated place. Hygroscopic.
<b>Incompatible Products</b>	Strong acids.

**SECTION 8. ----- EXPOSURE CONTROLS/PERSONAL PROTECTION-----**

<b>Engineering Measures</b>	Showers Eyewash stations Ventilation systems
<b>Personal Protective Equipment</b>	
<b>Eye/Face Protection</b>	Tightly fitting safety goggles.
<b>Skin and Body Protection</b>	Wear protective gloves/clothing
<b>Respiratory Protection</b>	If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA Approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations
<b>Hygiene Measures</b>	Handle in accordance with good industrial hygiene and safety practice

**SECTION 9. ----- PHYSICAL AND CHEMICAL PROPERTIES -----**

<b>Appearance</b>	White
<b>Odor</b>	No information available
<b>Odor Threshold</b>	No information available
<b>Decomposition Temperature °C</b>	No information available
<b>Freezing Point</b>	No information available
<b>Initial Boiling Point</b>	No information available
<b>Physical State</b>	Tablet
<b>pH</b>	No data available
<b>Flash Point</b>	Not determined
<b>Autoignition Temperature</b>	No data available
<b>Boiling Point/Range</b>	No data available
<b>Melting Point/Range</b>	No data available
<b>Flammability Limits in Air</b>	<b>Upper</b> No data available <b>Lower</b> No data available
<b>Explosive Properties</b>	No information available

<b>Oxidizing Properties</b>	No information available
<b>Evaporation Rate</b>	No data available
<b>MMHG @ 37.8 C</b>	No data available
<b>Vapor Density</b>	No data available
<b>Specific Gravity</b>	No data available
<b>Solubility</b>	No information available
<b>Partition Coefficient (n-octanol/water)</b>	No data available
<b>Viscosity</b>	No information available

**SECTION 10. -----STABILITY AND REACTIVITY -----**

<b>Stability</b>	Stable under recommended storage conditions
<b>Incompatible Products</b>	Strong acid.
<b>Conditions to Avoid</b>	Protect from moisture.
<b>Hazardous Decomposition Products</b>	No information available
<b>Hazardous Polymerization</b>	Hazardous polymerization does not occur

**SECTION 11. ----- TOXICOLOGICAL INFORMATION -----**

**Acute Toxicity**

**Product Information** Irritating to eye, skin and respiratory system.

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Sodium Chloride	3 g/kg ( Rat )	10 g/kg ( Rabbit )	42 g/m <sup>3</sup> ( Rat ) 1 h
Sodium Phosphate	17 g/kg ( Rat )		
Potassium phosphate		4640 mg/kg ( Rabbit )	
Potassium Chloride	2600 mg/kg ( Rat )		

**Chronic Toxicity**

<b>Chronic Toxicity</b>	No known effect based on information supplied
<b>Target Organ Effects</b>	None known.

**SECTION 12. ----- ECOLOGICAL INFORMATION -----**

**Ecotoxicity**

Harmful to aquatic organisms.

Chemical Name	Toxicity to Algae	Toxicity to Fish	Microtox	Daphnia Magna (Water Flea)
Sodium Chloride		LC50 6020-7070 mg/L Pimephales promelas 96 h LC50 6420-6700 mg/L Pimephales promelas 96 h LC50 4747-7824 mg/L Oncorhynchus mykiss 96 h LC50= 12946 mg/L Lepomis macrochirus 96 h LC50= 7050 mg/L Pimephales promelas 96 h LC50 5560-6080 mg/L Lepomis macrochirus 96 h		EC50 = 1000 mg/L 48 h
Potassium Chloride	EC50 = 2500 mg/L 72 h	LC50 750-1020 mg/L Pimephales promelas 96 h LC50= 1060 mg/L Lepomis macrochirus 96 h		EC50 = 825 mg/L 48 h

**SECTION 13. ----- DISPOSAL CONSIDERATIONS -----**

<b>Waste Disposal Method</b>	Dispose of material in accordance with all federal, state, and local regulations
<b>Contaminated Packaging</b>	Dispose of in accordance with all federal, state and local regulations

**SECTION 14. ----- TRANSPORT INFORMATION -----**

**IATA** Not regulated

**DOT** Not regulated

**SECTION 15. ----- REGULATORY INFORMATION -----**

**REACH Title VII Restrictions** No information available.

Chemical Name	Dangerous Substances	Organic Solvents	Harmful Substances Whose Names Are to be Indicated on the Label	Pollution Release and Transfer Registry (Class II):	Pollution Release and Transfer Registry (Class I):	Poison and Deleterious Substances Control Law:
Sodium Chloride	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
Sodium Phosphate	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
Potassium phosphate	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
Potassium Chloride	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

Component	ISHA - Harmful Substances Prohibited for Manufacturing, Importing, Transferring, or Supplying	ISHA - Harmful Substances Requiring Permission	Toxic Chemical Classification Listing (TCCL) - Toxic Chemicals	Toxic Release Inventory (TRI) - Group I	Toxic Release Inventory (TRI) - Group II
Sodium Chloride 7647-14-5 (>1)	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
Sodium Phosphate 7558-79-4 (>1)	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
Potassium phosphate 7778-77-0 (>1)	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
Potassium Chloride 7447-40-7 (>1)	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

**International Inventories**

**TSCA** Complies  
**EINECS/ELINCS** Complies  
**ENCS** Complies  
**IECSC** Complies  
**KECL** Does not Comply  
**PICCS** Complies  
**AICS** Complies

**U.S. Federal Regulations**

**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

**SARA 311/312 Hazard Categories**

**Acute Health Hazard** Yes  
**Chronic Health Hazard** No  
**Fire Hazard** No  
**Sudden Release of Pressure Hazard** No  
**Reactive Hazard** No

**Clean Water Act**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

**Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)**

This product does not contain any substances regulated as hazardous air pollutants (HAPS) under Section 112 of the Clean Air Act Amendments of 1990

**CERCLA**

Component	Hazardous Substances RQs	Extremely Hazardous Substances RQs
Sodium Phosphate	5000 lb	

**U.S. State Regulations**

**California Proposition 65**

This product does not contain any Proposition 65 chemicals.

**U.S. State Right-to-Know Regulations**

Chemical Name	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Sodium Phosphate	X	X	X	X	X

**International Regulations**

**Mexico – Grade** No information available.

**Canada**

**WHMIS Hazard Class**

D2B Toxic materials



**SECTION 16. ----- OTHER INFORMATION-----**

**Issuing Date** 13-Aug-2009  
**Revision Date** 21-Mar-2016  
**Revision Note** No information available.  
**Recommended Restrictions** No information available

**Disclaimer**

The information provided on this MSDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

**End of MSDS**