SAFETY DATA SHEET

PSX 700 HARDENER



Date of issue 8 November 2021

Version 3

1. Product and company identification

Product name	: PSX 700 HARDENER
Product code	: 00393283
Product type	: Liquid.

Relevant identified uses of the substance or mixture and uses advised against		
Product use	: Professional applications, Used by spraying.	
Use of the substance/ mixture	: Coating.	
Uses advised against	: Not applicable.	
Supplier's details	: PPG PMC Japan Co., Ltd. 8F, Shintetsu Bldg., 1-1, Daikaidori 1-chome, Kobe 652-0803 Tel : +81 78 574 2777 Fax : +81 78 576 0035	
Emergency telephone number	: 078 574 2777	

2. Hazards identification

GHS Classification	ACUTE TOXICITY (oral) - Category 4 Signature 1
	SKIN CORROSION - Category 1
	SERIOUS EYE DAMAGE - Category 1
	SKIN SENSITIZATION - Category 1
	GERM CELL MUTAGENICITY - Category 2
	CARCINOGENICITY - Category 1A
	TOXIC TO REPRODUCTION - Category 1A
	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 2
	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) -
	Category 3
	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2 HAZARDOUS TO THE AQUATIC ENVIRONMENT - ACUTE HAZARD - Category 2 HAZARDOUS TO THE AQUATIC ENVIRONMENT - CHRONIC HAZARD - Category 2
GHS label elements	
Hazard pictograms	
nazaru pictogranis	
Signal word	: Danger

Product name PSX 700 HARDENER

2. Hazards identification		
Hazard statements	farmful if swallowed. Causes severe skin burns and eye damage. May cause an allergic skin reaction. May cause respiratory irritation. May cause drowsiness or dizziness. Suspected of causing genetic defects. May cause cancer. May damage fertility or the unborn child. May cause damage to organs. May cause damage to organs through prolonged or repeated exposure. (central nervous system (CNS), immune system, liver, respiratory system) Foxic to aquatic life with long lasting effects.	
Precautionary statements		
Prevention	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing and eye or face protection. Use only outdoors or in a well-ventilated area. Avoid rele o the environment. Do not breathe vapor. Do not eat, drink or smoke when usin his product. Wash thoroughly after handling. Contaminated work clothing shou not be allowed out of the workplace.	d ease ng
Response	Collect spillage. IF exposed or concerned: Call a POISON CENTER or doctor. NHALED: Remove person to fresh air and keep comfortable for breathing. mmediately call a POISON CENTER or doctor. IF SWALLOWED: Immediately a POISON CENTER or doctor. Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with w mmediately call a POISON CENTER or doctor. Wash contaminated clothing before reuse. IF ON SKIN: Wash with plenty of water. If skin irritation or rash boccurs: Get medical advice or attention. IF IN EYES: Rinse cautiously with wate several minutes. Remove contact lenses, if present and easy to do. Continue rin mmediately call a POISON CENTER or doctor.	r call vater. er for
Storage	Store locked up. Store in a well-ventilated place. Keep container tightly closed.	
Disposal	Dispose of contents and container in accordance with all local, regional, national and international regulations.	
Other hazards which do not result in classification	auses digestive tract burns. Prolonged or repeated contact may dry skin and cause irritation.	

3. Composition/information on ingredients

Substance/mixture

: Mixture

CAS number/other identifiers

CAS number	: Not applicable.
CSCL number	: Not available.

Ingredient name	%	CAS number	CSCL
3-aminopropyltriethoxysilane	50 - 100	919-30-2	2-2061
dibutylbis(pentane-2,4-dionato-O,O')tin	5 - <7	22673-19-4	2-3458
Ethanol	1 - <2	64-17-5	2-202

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

SUB codes represent substances without registered CAS Numbers.

4. First aid measures

Description of necess	sary first aid measures
Eye contact	 Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek immediate medical attention.
Inhalation	: Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.
Skin contact	 Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners.
Ingestion	 If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do NOT induce vomiting.

Most important symptoms/effects, acute and delayed

Potential acute health effec	<u>ts</u>	
Eye contact	:	Causes serious eye damage.
Inhalation	:	Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.
Skin contact	1	Causes severe burns. May cause damage to organs following a single exposure in contact with skin. Defatting to the skin. May cause an allergic skin reaction.
Ingestion	-	Farmful if swallowed. Corrosive to the digestive tract. Causes burns. May cause damage to organs following a single exposure if swallowed. Can cause central nervous system (CNS) depression.
<u>Over-exposure signs/symp</u>	ton	<u>15</u>
Eye contact	-	Adverse symptoms may include the following: pain watering redness
Inhalation	:	Adverse symptoms may include the following: respiratory tract irritation coughing nausea or vomiting headache drowsiness/fatigue dizziness/vertigo unconsciousness reduced fetal weight increase in fetal deaths skeletal malformations
Skin contact	:	Adverse symptoms may include the following: pain or irritation redness dryness cracking blistering may occur reduced fetal weight increase in fetal deaths skeletal malformations
Ingestion	:	Adverse symptoms may include the following: stomach pains reduced fetal weight increase in fetal deaths skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary

Protection of first-aiders
 No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

5. Fire-fighting measures		
Extinguishing media		
Suitable extinguishing media	: Use an extinguishing agent suitable for the surrounding fire.	
Unsuitable extinguishing media	: None known.	
Specific hazards arising from the chemical	: n a fire or if heated, a pressure increase will occur and the container may burst. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.	
Hazardous thermal decomposition products	: Decomposition products may include the following materials: carbon oxides nitrogen oxides metal oxide/oxides Formaldehyde.	
Special protective actions for fire-fighters	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.	
Special protective equipment for fire-fighters	: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.	

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures		
For non-emergency personnel	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.	
For emergency responders	: If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".	
Environmental precautions	: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.	

Methods and materials for containment and cleaning up

6. Accidental release measures

Small spill	: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
Large spill	: Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

7. Handling and storage

Precautions for safe handling	: Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Conditions for safe storage : Store between the following temperatures: 0 to 35°C (32 to 95°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

8. Exposure controls/personal protection

<u>Control parameters</u>	
Occupational exposure limit	<u>s</u>
None.	
Recommended monitoring procedures	: If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.
Appropriate engineering controls	: Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.
Environmental exposure controls	: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.
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8. Exposure controls/personal protection

Individual protection measures

Hygiene measures	: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
Eye protection	: Chemical splash goggles and face shield.
Skin protection	
Hand protection	: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
Gloves	: nitrile neoprene
Body protection	 Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Other skin protection	: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	: Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

9. Physical and chemical properties

Appearance	
Physical state	: Liquid.
Color	: Clear
Odor	: Characteristic.
Boiling point	: >37.78°C (>100°F)
Flash point	: Closed cup: Not applicable.
Relative density	: 0.96
Solubility	: Insoluble in the following materials: cold water.
Viscosity	: Not Applicable

10. Stability and reactivity			
Reactivity	: No specific test data related to reactivity available for this product or its ingredient	ts.	
Chemical stability	: The product is stable.		
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.		
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10. Stability and reactivity

Conditions to avoid	:	When exposed to high temperatures may produce hazardous decomposition products.
Incompatible materials	:	Keep away from the following materials to prevent strong exothermic reactions: oxidizing agents, strong alkalis, strong acids.
Hazardous decomposition products	:	Depending on conditions, decomposition products may include the following materials: carbon oxides nitrogen oxides Formaldehyde. metal oxide/oxides

11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
3-aminopropyltriethoxysilane	LC50 Inhalation Dusts and mists	Rat	>7.35 mg/l	4 hours
	LD50 Dermal	Rabbit	4 g/kg	-
	LD50 Oral	Rat	1.57 g/kg	-
dibutylbis(pentane-	LD50 Dermal	Rat	>2000 mg/kg	-
2,4-dionato-O,O')tin	LD50 Oral	Rat	1864 mg/kg	_
Ethanol	LC50 Inhalation Vapor	Rat	124700 mg/m ³	4 hours
	LD50 Dermal	Rat	17100 mg/kg	-
	LD50 Oral	Rat	7 g/kg	-

Irritation/Corrosion

Not available.

Sensitization

••••••	Route of exposure	Species	Result
3-aminopropyltriethoxysilane	skin	Guinea pig	Sensitizing

Mutagenicity

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
aminopropyltriethoxysilane	Category 3	-	Respiratory tract irritation
	Category 3		Narcotic effects
dibutylbis(pentane-2,4-dionato-O,O')tin	Category 1	-	-
Ethanol	Category 3	-	Respiratory tract irritation
	Category 3		Narcotic effects

Japan

11. Toxicological information

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
了aminopropyltriethoxysilane dibutylbis(pentane-2,4-dionato-O,O')tin Ethanol	Category 2 Category 1 Category 1 Category 2		respiratory system immune system liver central nervous system (CNS)

Aspiration hazard

Not available.

Information on the likely routes of exposure	: Not available.
Potential acute health effe	ects
Eye contact	: Causes serious eye damage.
Inhalation	 Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.
Skin contact	: Zauses severe burns. May cause damage to organs following a single exposure in contact with skin. Defatting to the skin. May cause an allergic skin reaction.
Ingestion	 Harmful if swallowed. Corrosive to the digestive tract. Causes burns. May cause damage to organs following a single exposure if swallowed. Can cause central nervous system (CNS) depression.
Symptoms related to the	physical, chemical and toxicological characteristics
Eye contact	: Adverse symptoms may include the following: pain watering redness
Inhalation	: Adverse symptoms may include the following: respiratory tract irritation coughing nausea or vomiting headache drowsiness/fatigue dizziness/vertigo unconsciousness reduced fetal weight increase in fetal deaths skeletal malformations
Skin contact	: Adverse symptoms may include the following: pain or irritation redness dryness cracking blistering may occur reduced fetal weight increase in fetal deaths skeletal malformations
Ingestion	: Adverse symptoms may include the following: stomach pains reduced fetal weight increase in fetal deaths skeletal malformations

11. Toxicological information

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure	
Potential immediate effects	: Not available.
Potential delayed effects	: Not available.
<u>Long term exposure</u>	
Potential immediate effects	: Not available.
Potential delayed effects	: Not available.
Potential chronic health eff	<u>ects</u>
General	: May cause damage to organs through prolonged or repeated exposure. Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
Carcinogenicity	: May cause cancer. Risk of cancer depends on duration and level of exposure.
Mutagenicity	: Suspected of causing genetic defects.
Reproductive toxicity	: May damage fertility or the unborn child.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/ kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
SX 700 HARDENER	1618	35732.1	N/A	N/A	N/A
3-aminopropyltriethoxysilane	1570	4000	N/A	N/A	N/A
dibutylbis(pentane-2,4-dionato-O,O')tin	1864	2500	N/A	N/A	N/A
Ethanol	7000	17100	N/A	124.7	N/A

Other information

Causes digestive tract burns. Prolonged or repeated contact may dry skin and cause irritation. Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Inhalation of vapor/aerosol concentrations above the recommended exposure limits causes headaches, drowsiness and nausea and may lead to unconsciousness or death. Contains a substance that may emit formaldehyde if stored beyond its shelf life and/or during cure at curing temperatures greater than 60C (140F). Avoid contact with skin and clothing.

12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
♂-aminopropyltriethoxysilane Ethanol	5		96 hours 48 hours

Persistence/degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
E thanol	-	-	Readily

Bioaccumulative potential

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Product code 00393283 Product name PSX 700 HAR	DENER	Date of iss	ue 8 November 2021 Version 3
12. Ecological inf	ormation		
Product/ingredient name	LogPow	BCF	Potential
₿-aminopropyltriethoxysilane Ethanol	1.7 -0.35	3.4 -	low low
Mobility in soil			
Soil/water partition coefficient (K _{oc})	: Not available.		
Mobility	: Not available.		
Other adverse effects	: No known significa	ant effects or critical haza	ırds.
13. Disposal cons	iderations		
Disposal methods	Disposal of this pr with the requireme and any regional lo	oduct, solutions and any ents of environmental pro ocal authority requiremen	or minimized wherever possible. by-products should at all times comply tection and waste disposal legislation ts. Dispose of surplus and non- sposal contractor. Waste should not be

and any regional local authority requirements. Dispose of surplus and nonrecyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

14. Transport information

	UN	IMDG	IATA
UN number	UN3066	UN3066	UN3066
UN proper shipping name	PAINT	PAINT	PAINT
Transport hazard class(es)	8	8	8
Packing group	II	II	11
Environmental hazards	Yes. The environmentally hazardous substance mark is not required.	Yes.	Yes. The environmentally hazardous substance mark is not required.
Marine pollutant substances	Not applicable.	(dibutylbis(pentane- 2,4-dionato-O,O')tin)	Not applicable.

Additional information

UN	: None identified.
IMDG	: The marine pollutant mark is not required when transported in sizes of ≤ 5 L or ≤ 5 kg.
ΙΑΤΑ	 The environmentally hazardous substance mark may appear if required by other transportation regulations.

14. Transport information

Special precautions for user : Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according : Not applicable. to IMO instruments

15. Regulatory information

Fire Service Law

None of the components are listed.

Pollutant Release and Transfer Registers (PRTR)

Ingredient name	%	Status	Reference number
Ørganic tin compounds	≤10	Class 1	239

ISHL

Ordinance on the prevention of the hazard due to specified chemical substances

None of the components are listed.

Substances requiring labelling

Ingredient name	%		Reference number
Image: Market Arrowski and State Arrowski and Arrowski an	≤10	Listed	322
	≤10	Listed	61

Chemicals requiring notification

Ingredient name	%		Reference number
Image: March and the second secon	≤10	Listed	322
	≤10	Listed	61

Carcinogen

None of the components are listed.

Mutagen

None of the components are listed.

Corrosive liquid	: Not listed
Occupational Safety and Health Law	: Inflammable
Regulations on the Prevention of Tetraalkyl Lead Poisoning	: Not listed
Harmful Substances Subject to Obtaining Permission for Manufacturing	: Not listed
Harmful Substances, Prohibited for Manufacturing	: Not listed

15. Regulatory information

Dangerous Substances : Inflammable

Lead regulation

: Not listed

Organic solvents poisoning prevention

: Not applicable.

Poisonous and Deleterious Substances

None of the components are listed.

Chemical Substances Control Law (CSCL)

Ingredient name	%		Reference number
Poluene	0.00837	Priority assessment	46

High Pressure Gas Control : Not available. Law

Explosives Control Law

None of the components are listed.

Law concerning prevention : Not available. of pollution of the ocean

Maritime Safety Law

Notification Regulating Transportation of Dangerous Materials by Sea

None of the components are listed.

Container class

None of the components are listed.

JSOH Carcinogen	: Not listed
List of Specially Controlled Industrial Waste	: Not listed
Japan inventory	: All components are listed or exempted.
Road law	: Not available.

16. Other information

<u>History</u> Date of issue/Date of revision	: 8 November 2021
Date of previous issue	: 1/3/2019
Version	: 3
Prepared by	: EHS
Key to abbreviations	 ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor GHS = Globally Harmonized System of Classification and Labelling of Chemicals IATA = International Air Transport Association IMDG = International Maritime Dangerous Goods

16. Other information

LogPow = logarithm of the octanol/water partition coefficient MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution) RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail

UN = United Nations

V Indicates information that has changed from previously issued version.

Notice to reader

The information contained in this data sheet is based on present scientific and technical knowledge. The purpose of this information is to draw attention to the health and safety aspects concerning the products supplied by PPG, and to recommend precautionary measures for the storage and handling of the products. No warranty or guarantee is given in respect of the properties of the products. No liability can be accepted for any failure to observe the precautionary measures described in this data sheet or for any misuse of the products.