

SAFETY DATA SHEET

SIAM POLYSTYRENE CO., LTD.

Product name: XQ 81900.00 Experimental Ignition Resistant Polystyrene Black

Issue Date: 17.04.2020

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SIAM POLYSTYRENE CO., LTD. encourages and expects you to read and understand the entire (M)SDS, as there is important information throughout the document. We expect you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: XQ 81900.00 Experimental Ignition Resistant Polystyrene Black

Recommended use of the chemical and restrictions on use

Identified uses: A polystyrene plastic - For industrial conversion as a raw material for manufacture of articles or goods. We recommend that you use this product in a manner consistent with the listed use. If your intended use is not consistent with the stated use, please contact your sales or technical service representative.

COMPANY IDENTIFICATION

SIAM POLYSTYRENE CO., LTD. 15TH FLOOR, WHITE GROUP II 75 SOI RUBIA, SUKHUMVIT 42 PRAKANONG BANGKOK 10110 THAILAND

Customer Information Number:

(66)2-3657000 SDSQuestion@dow.com

EMERGENCY TELEPHONE NUMBER 24-Hour Emergency Contact: (66)38-925-400 **Local Emergency Contact:** 038-925-400

2. HAZARDS IDENTIFICATION

GHS Classification Acute toxicity - Category 5 - Dermal

GHS label elements

Signal word: WARNING!

Hazard statements May be harmful in contact with skin.

Precautionary statements

Response

Call a POISON CENTER or doctor/ physician if you feel unwell.

Other hazards

No data available

3. COMPOSITION/INFORMATION ON INGREDIENTS

This product is a mixture. Component	CASRN	Concentration
Styrene, 1,3-butadiene copolyme	9003-55-8	>= 70.0 %
1,2-Bis(pentabromophenyl) ethane	84852-53-9	<= 20.0 %
White mineral oil (petroleum)	8042-47-5	<= 7.0 %
Diantimony trioxide	1309-64-4	<= 5.0 %
Fatty Acids, C16-18, Zinc Salts	91051-01-3	<= 1.0 %
Carbon black	1333-86-4	<= 1.0 %

4. FIRST AID MEASURES

Description of first aid measures

General advice:

First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection). If potential for exposure exists refer to Section 8 for specific personal protective equipment.

Inhalation: Move person to fresh air and keep comfortable for breathing; consult a physician.

Skin contact: Wash off with plenty of water. Seek first aid or medical attention as needed. If molten material comes in contact with the skin, do not apply ice but cool under ice water or running stream of water. DO NOT attempt to remove the material from skin. Removal could result in severe tissue damage. Seek medical attention immediately. Suitable emergency safety shower facility should be immediately available.

Eye contact: Flush eyes thoroughly with water for several minutes. Remove contact lenses after the initial 1-2 minutes and continue flushing for several additional minutes. If effects occur, consult a physician, preferably an ophthalmologist.

Ingestion: If swallowed, seek medical attention. May cause gastrointestinal blockage. Do not give laxatives. Do not induce vomiting unless directed to do so by medical personnel.

Most important symptoms and effects, both acute and delayed:

Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), any additional important symptoms and effects are described in Section 11: Toxicology Information.

Indication of any immediate medical attention and special treatment needed

Notes to physician: If burn is present, treat as any thermal burn, after decontamination. If lavage is performed, suggest endotracheal and/or esophageal control. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach. No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

5. FIREFIGHTING MEASURES

Extinguishing media

Suitable extinguishing media: Water fog or fine spray.. Dry chemical fire extinguishers.. Carbon dioxide fire extinguishers.. Foam..

Unsuitable extinguishing media: No data available

Special hazards arising from the substance or mixture

Hazardous combustion products: During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating.. Combustion products may include and are not limited to:. Carbon dioxide.. Carbon monoxide..

Unusual Fire and Explosion Hazards: Pneumatic conveying and other mechanical handling operations can generate combustible dust. To reduce the potential for dust explosions, do not permit dust to accumulate.. Dense smoke is produced when product burns..

Advice for firefighters

Fire Fighting Procedures: No data available

Special protective equipment for firefighters: Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots, and gloves).. If protective equipment is not available or not used, fight fire from a protected location or safe distance..

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Spilled material may cause a slipping hazard. Keep unnecessary and unprotected personnel from entering the area. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

Environmental precautions: Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.

Methods and materials for containment and cleaning up: Contain spilled material if possible. Sweep up. Collect in suitable and properly labeled containers. See Section 13, Disposal Considerations, for additional information.

7. HANDLING AND STORAGE

Precautions for safe handling: No smoking, open flames or sources of ignition in handling and storage area. Good housekeeping and controlling of dusts are necessary for safe handling of product. Avoid breathing process fumes. Use with adequate ventilation. When appropriate, unique handling information for containers can be found on the product label. Workers should be protected from the possibility of contact with molten resin. Do not get molten material in eyes, on skin or clothing. Keep away from heat, sparks and flame. Pneumatic conveying and other mechanical handling operations can generate combustible dust. To reduce the potential for dust explosions, electrically bond and ground equipment and do not permit dust to accumulate. Dust can be ignited by static discharge. See Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION.

Conditions for safe storage: Store in a dry place. Store in accordance with good manufacturing practices.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

If exposure limits exist, they are listed below. If no exposure limits are displayed, then no values are applicable.

Component	Regulation	Type of listing	Value
White mineral oil (petroleum)	ACGIH	TWA Inhalable	5 mg/m3
		particulate matter	-
	Further information: A4: Not classifiable as a human carcinogen		
Carbon black	ACGIH	TWA Inhalable	3 mg/m3
		particulate matter	
	Further information: A3: Confirmed animal carcinogen with unknown relevance to humans		

Although some of the components of this product may have exposure guidelines, no exposure would be expected under normal handling conditions due to the physical state of the material.

Exposure controls

Engineering controls: Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations. Local exhaust ventilation may be necessary for some operations.

Individual protection measures

Eye/face protection: Use safety glasses (with side shields). If there is a potential for exposure to particles which could cause eye discomfort, wear chemical goggles. If exposure causes eye discomfort, use a full-face respirator. **Skin protection**

Hand protection: Chemical protective gloves should not be needed when handling this material. Consistent with general hygienic practice for any material, skin contact should be minimized. Use gloves to protect from mechanical injury. Selection of gloves will depend on the task. Use gloves with insulation for thermal protection, when needed.

Other protection: No precautions other than clean body-covering clothing should be needed.

Respiratory protection: Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced, or where indicated by your risk assessment process. Use an approved air-purifying respirator when vapors are generated at increased temperatures or when dust or mist is present.

The following should be effective types of air-purifying respirators: Organic vapor cartridge with a particulate pre-filter.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	
Physical state	Pellets.
Color	clear
Odor	Odorless to mild
Odor Threshold	No test data available
рН	Not applicable
Melting point/range	No data available
Freezing point	Not applicable
Boiling point (760 mmHg)	Not applicable
Flash point	No test data available
Evaporation Rate (Butyl Acetate = 1)	Not applicable
Flammability (solid, gas)	No data available.
Lower explosion limit	Not applicable to solids
Upper explosion limit	Not applicable to solids
Vapor Pressure	Not applicable
Relative Vapor Density (air = 1)	Not applicable
Relative Density (water = 1)	1.12 - 1.17 Literature
Water solubility	Literature negligible
Partition coefficient: n- octanol/water	No data available
Auto-ignition temperature	No test data available
Decomposition temperature	No test data available
Kinematic Viscosity	Not applicable
Explosive properties	No data available
Oxidizing properties	Not applicable
Molecular weight	Not determined

NOTE: The physical data presented above are typical values and should not be construed as a specification.

10. STABILITY AND REACTIVITY

Reactivity: No data available

Chemical stability: Stable under recommended storage conditions. See Storage, Section 7.

Possibility of hazardous reactions: Polymerization will not occur.

Conditions to avoid: Avoid temperatures above 300 °C Exposure to elevated temperatures can cause product to decompose.

Incompatible materials: None known.

Hazardous decomposition products: Decomposition products depend upon temperature, air supply and the presence of other materials.. Processing may release fumes and other decomposition products. At temperatures exceeding melt temperatures, polymer fragments can be released. Fumes can be irritating.. Decomposition products can include and are not limited to:. Combustible gases..

11. TOXICOLOGICAL INFORMATION

Toxicological information appears in this section when such data is available.

Information on likely routes of exposure

Ingestion, Skin contact, Eye contact.

Acute toxicity (represents short term exposures with immediate effects - no chronic/delayed effects known unless otherwise noted)

Acute oral toxicity

Very low toxicity if swallowed. Harmful effects not anticipated from swallowing small amounts. May cause choking if swallowed.

Typical for this family of materials. Estimated. Single dose oral LD50 has not been determined. LD50, Rat, > 5,000 mg/kg

Information for components:

<u>Styrene, 1,3-butadiene copolymer</u> Single dose oral LD50 has not been determined.

<u>**1,2-Bis(pentabromophenyl) ethane</u>** LC50, Rat, male and female, > 5,000 mg/kg Fixed Dose Method</u>

White mineral oil (petroleum)

LD50, Rat, > 5,000 mg/kg

Diantimony trioxide

LD50, Rat, > 5,000 mg/kg

Fatty Acids, C16-18, Zinc Salts

LD50, Rat, male and female, > 5,000 mg/kg OECD Test Guideline 401

Carbon black

LD50, Rat, > 8,000 mg/kg

Acute dermal toxicity

No adverse effects anticipated by skin absorption.

The dermal LD50 has not been determined. Typical for this family of materials. Estimated. LD50, Rabbit, > 2,000 mg/kg

Information for components:

Styrene, 1,3-butadiene copolymer

The dermal LD50 has not been determined.

1,2-Bis(pentabromophenyl) ethane

LD50, Rabbit, male and female, > 2,000 mg/kg No deaths occurred at this concentration.

White mineral oil (petroleum)

LD50, Rabbit, > 2,000 mg/kg No deaths occurred at this concentration.

Diantimony trioxide

LD50, Rabbit, > 5,000 mg/kg

Fatty Acids, C16-18, Zinc Salts

LD50, Rabbit, > 2,000 mg/kg No deaths occurred at this concentration.

Carbon black

LD50, Rabbit, > 3,000 mg/kg No deaths occurred at this concentration.

Acute inhalation toxicity

No adverse effects are anticipated from single exposure to dust. Vapors released during thermal processing may cause respiratory irritation.

The LC50 has not been determined.

Information for components:

Styrene, 1,3-butadiene copolymer

The LC50 has not been determined.

1,2-Bis(pentabromophenyl) ethane

The LC50 has not been determined.

White mineral oil (petroleum)

LC50, Rat, male and female, 4 Hour, dust/mist, > 5 mg/l OECD Test Guideline 403

Diantimony trioxide

Prolonged excessive exposure may cause adverse effects. May cause lung injury.

LC50, Rat, male and female, 4 Hour, dust/mist, > 5.2 mg/l OECD Test Guideline 403 No deaths occurred at this concentration.

Fatty Acids, C16-18, Zinc Salts

LC50, Rat, 1 Hour, dust/mist, > 200 mg/l

Carbon black

LC50, Rat, 1 Hour, dust/mist, 27 mg/l No deaths occurred at this concentration.

Skin corrosion/irritation

Prolonged contact is essentially nonirritating to skin. Mechanical injury only. Under normal processing conditions, material is heated to elevated temperatures; contact with the material may cause thermal burns.

Information for components:

Styrene, 1,3-butadiene copolymer

Essentially nonirritating to skin. Mechanical injury only. Under normal processing conditions, material is heated to elevated temperatures; contact with the material may cause thermal burns.

1,2-Bis(pentabromophenyl) ethane

Brief contact is essentially nonirritating to skin.

White mineral oil (petroleum)

Prolonged contact is essentially nonirritating to skin. Repeated contact may cause skin irritation with local redness.

Diantimony trioxide

Prolonged contact may cause moderate skin irritation with local redness.

Fatty Acids, C16-18, Zinc Salts

Essentially nonirritating to skin.

Carbon black

Prolonged exposure not likely to cause significant skin irritation.

Serious eye damage/eye irritation

Solid or dust may cause irritation or corneal injury due to mechanical action. Elevated temperatures may generate vapor levels sufficient to cause eye irritation. Effects may include discomfort and redness.

Information for components:

Styrene, 1,3-butadiene copolymer

May cause irritation or corneal injury due to mechanical action. Elevated temperatures may generate vapor levels sufficient to cause eye irritation. Effects may include discomfort and redness.

1,2-Bis(pentabromophenyl) ethane

May cause slight eye irritation.

White mineral oil (petroleum)

May cause slight temporary eye irritation. Corneal injury is unlikely.

Diantimony trioxide

May cause slight eye irritation. Dust may irritate eyes.

Fatty Acids, C16-18, Zinc Salts

May cause slight eye irritation. Corneal injury is unlikely.

Carbon black

Solid or dust may cause irritation or corneal injury due to mechanical action.

Sensitization

For skin sensitization: No relevant data found.

For respiratory sensitization: No relevant data found.

Information for components:

Styrene, 1,3-butadiene copolymer

For skin sensitization: Relevant data not available.

For respiratory sensitization: Relevant data not available.

1,2-Bis(pentabromophenyl) ethane

Did not cause allergic skin reactions when tested in guinea pigs.

For respiratory sensitization: No relevant data found.

<u>White mineral oil (petroleum)</u> Did not cause allergic skin reactions when tested in guinea pigs.

For respiratory sensitization: No relevant data found.

Diantimony trioxide

Did not cause allergic skin reactions when tested in guinea pigs.

For respiratory sensitization: No relevant data found.

Fatty Acids, C16-18, Zinc Salts

Did not cause allergic skin reactions when tested in guinea pigs.

For respiratory sensitization: No relevant data found.

Carbon black

Did not cause allergic skin reactions when tested in guinea pigs.

For respiratory sensitization: No relevant data found.

Specific Target Organ Systemic Toxicity (Single Exposure)

Product test data not available.

Information for components:

Styrene, 1,3-butadiene copolymer

Evaluation of available data suggests that this material is not an STOT-SE toxicant.

1,2-Bis(pentabromophenyl) ethane

Available data are inadequate to determine single exposure specific target organ toxicity.

White mineral oil (petroleum)

Available data are inadequate to determine single exposure specific target organ toxicity.

Diantimony trioxide

Evaluation of available data suggests that this material is not an STOT-SE toxicant.

Carbon black

Evaluation of available data suggests that this material is not an STOT-SE toxicant.

Aspiration Hazard

Based on physical properties, not likely to be an aspiration hazard.

Information for components:

Styrene, 1,3-butadiene copolymer

Based on physical properties, not likely to be an aspiration hazard.

1,2-Bis(pentabromophenyl) ethane

Based on physical properties, not likely to be an aspiration hazard.

White mineral oil (petroleum)

Based on physical properties, not likely to be an aspiration hazard.

Diantimony trioxide

Based on physical properties, not likely to be an aspiration hazard.

Fatty Acids, C16-18, Zinc Salts No data available

Carbon black

Based on physical properties, not likely to be an aspiration hazard.

Chronic toxicity (represents longer term exposures with repeated dose resulting in chronic/delayed effects - no immediate effects known unless otherwise noted)

Specific Target Organ Systemic Toxicity (Repeated Exposure)

Additives are encapsulated in the product and are not expected to be released under normal processing conditions or foreseeable emergency.

Information for components:

Styrene, 1,3-butadiene copolymer

No relevant data found.

1,2-Bis(pentabromophenyl) ethane

Based on available data, repeated exposures are not anticipated to cause additional significant adverse effects.

White mineral oil (petroleum)

Based on available data, repeated exposures are not anticipated to cause additional significant adverse effects.

Diantimony trioxide

In animals, effects have been reported on the following organs: Eye. Liver. Respiratory tract. Due to the physical state of the material, this component is not expected to be bioavailable under normal handling and processing conditions.

Fatty Acids, C16-18, Zinc Salts

In animals, effects have been reported on the following organs: Pancreas. Stomach.

Carbon black

Dust may cause irritation of the upper respiratory tract (nose and throat) and lungs. Repeated exposures to very fine dusts may cause lung injury.

Carcinogenicity

No relevant data found.

Information for components:

Styrene, 1,3-butadiene copolymer

Based on information for component(s): Available data are inadequate to evaluate carcinogenicity.

1,2-Bis(pentabromophenyl) ethane

No relevant data found.

White mineral oil (petroleum)

Did not cause cancer in laboratory animals.

Diantimony trioxide

Has caused cancer in laboratory animals. Due to the physical state of the material, this component is not expected to be bioavailable under normal handling and processing conditions.

Fatty Acids, C16-18, Zinc Salts

No relevant data found.

Carbon black

Lung fibrosis and tumors have been observed in rats exposed to high concentrations of very fine carbon black particles for their lifetime. Effects are believed to be due to overloading of the normal respiratory clearance mechanisms caused by the extreme study conditions. Rats may be particularly susceptible to particle clearance overload, resulting in lung injury and tumors. No increases in tumors were observed in male or female mice exposed under the same conditions.

Carcinogenicity		
Component	List	Classification
Carbon black	IARC	Group 2B: Possibly carcinogenic to humans
	ACGIH	A3: Confirmed animal carcinogen with unknown relevance to humans.

Teratogenicity

No relevant data found.

Information for components:

Styrene, 1,3-butadiene copolymer No relevant data found.

1,2-Bis(pentabromophenyl) ethane

Did not cause birth defects in laboratory animals.

White mineral oil (petroleum)

Did not cause birth defects in laboratory animals.

Diantimony trioxide

Did not cause birth defects or any other fetal effects in laboratory animals.

Fatty Acids, C16-18, Zinc Salts

Did not cause birth defects in laboratory animals.

Carbon black No relevant data found.

Reproductive toxicity

No relevant data found.

Information for components:

Styrene, 1,3-butadiene copolymer

No relevant data found.

White mineral oil (petroleum)

In animal studies, did not interfere with reproduction.

Diantimony trioxide

Available data are inadequate to determine effects on fertility.

Fatty Acids, C16-18, Zinc Salts

In animal studies, has been shown to interfere with fertility in males.

<u>Carbon black</u> No relevant data found.

Mutagenicity

No relevant data found.

Information for components:

Styrene, 1,3-butadiene copolymer

No relevant data found.

<u>1,2-Bis(pentabromophenyl) ethane</u> In vitro genetic toxicity studies were negative.

White mineral oil (petroleum)

In vitro genetic toxicity studies were negative.

Diantimony trioxide

In vitro studies showed both positive and negative effects Animal genetic toxicity studies were negative.

Fatty Acids, C16-18, Zinc Salts

In vitro genetic toxicity studies were negative.

Animal genetic toxicity studies were positive.

Carbon black

Animal genetic toxicity studies were negative in some cases and positive in other cases. Positive findings were observed only at doses which produced significant inflammation.

12. ECOLOGICAL INFORMATION

Ecotoxicological information appears in this section when such data is available.

Ecotoxicity

Acute toxicity to fish

Not expected to be acutely toxic, but material in pellet or bead form may mechanically cause adverse effects if ingested by waterfowl or aquatic life.

Persistence and degradability

Biodegradability: This water-insoluble polymeric solid is expected to be inert in the environment. Surface photodegradation is expected with exposure to sunlight. No appreciable biodegradation is expected.

Bioaccumulative potential

Bioaccumulation: No bioconcentration is expected because of the relatively high molecular weight (MW greater than 1000).

Mobility in Soil

In the terrestrial environment, material is expected to remain in the soil. In the aquatic environment, material will sink and remain in the sediment.

Results of PBT and vPvB assessment

This mixture has not been assessed for persistence, bioaccumulation and toxicity (PBT).

Other adverse effects

No relevant data found.

13. DISPOSAL CONSIDERATIONS

Disposal methods: DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF WATER. All disposal practices must be in compliance with all Federal, State/Provincial and local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator. AS YOUR SUPPLIER, WE HAVE NO CONTROL OVER THE MANAGEMENT PRACTICES OR MANUFACTURING PROCESSES OF PARTIES HANDLING OR USING THIS MATERIAL. THE INFORMATION PRESENTED HERE PERTAINS ONLY TO THE PRODUCT AS SHIPPED IN ITS INTENDED CONDITION AS DESCRIBED IN MSDS SECTION: Composition Information. FOR UNUSED & UNCONTAMINATED PRODUCT, the preferred options include sending to a licensed, permitted: Recycler. Reclaimer. Incinerator or other thermal destruction device.

14. TRANSPORT INFORMATION

Classification for ROAD and Rail transport:

Not regulated for transport

Classification for SEA transport (IMO-IMDG):

Not regulated for transport Consult IMO regulations before transporting ocean bulk

of MARPOL 73/78 and the IBC or IGC Code

according to Annex I or II

Transport in bulk

Classification for AIR transport (IATA/ICAO):

Not regulated for transport

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

15. REGULATORY INFORMATION

Emergency Decree on Controlling the Use of Volatile Substances B.E. 2533 Not applicable

Hazardous Substance Act B.E. 2535 Department of Agriculture

Not applicable

Department of Energy Business Not applicable

Department of Livestock Not applicable

Department of Industrial Works Not applicable

Food and Drug Administration Not applicable

Department of Fisheries Not applicable

16. OTHER INFORMATION

Revision

Identification Number: 99168954 / A177 / Issue Date: 17.04.2020 / Version: 1.0 Most recent revision(s) are noted by the bold, double bars in left-hand margin throughout this document.

Legend

ACGIH	USA. ACGIH Threshold Limit Values (TLV)
TWA	8-hour, time-weighted average

Full text of other abbreviations

AICS - Australian Inventory of Chemical Substances; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx -

Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan): ErCx - Concentration associated with x% growth rate response: ERG -Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIOC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances: (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

SIAM POLYSTYRENE CO., LTD. urges each customer or recipient of this (M)SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this (M)SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/user's responsibility to ensure that his activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of the manufacturer, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product. Due to the proliferation of sources for information such as manufacturerspecific (M)SDSs, we are not and cannot be responsible for (M)SDSs obtained from any source other than ourselves. If you have obtained an (M)SDS from another source or if you are not sure that the (M)SDS you have is current, please contact us for the most current version. TH

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