SDS – Safety Data Sheet

1. Product and Company Identification

Product Name	SUMIPEX HTAAABS
Company Name	Sumitomo Chemical Asia Pte Ltd.
Address	3 Fraser Street #07-28 DUO Tower Singapore 189352
Telephone	+65 6499 4306
Emergency Telephone	NCEC Emergency number +44-(0) 1235 239 670 [Europe, Americas, Israel] +44-(0) 1235 239 671 [Middle East/Africa] +65-3158-1074 [Asia Pacific region(excluding China)] 400-120-6011 (Toll-free, access from China only)
Fax	+65 6867 6749
Recommended Uses and Restrictions on Use	The information contained herein is solely intended for normal handling and users should evaluate the product to determine whether it is fit for a particular purpose and suitable for the method of use or application before use.

2. Hazards Identification

Important Hazards and Effects

Human Health Hazards	This material contains ingredients corrosive to the skin and eyes. This material contains ingredients that cause respiratory tract sensitisation and skin sensitisation. This material contains ingredients that may cause irritation to the respiratory tract if inhaled as gas generated during heat forming/moulding of products. In addition, this material contains ingredients that may affect the nervous system if exposed to high concentrations of gas generated during heat forming/moulding of products or if exposed to the gas over a long period of time.
Environmental Effects	This material contains hardly degradable ingredients. This material contains ingredients very harmful to aquatic organisms.
Physical and Chemical Hazards	Since this material is combustible, it can burn if exposed to heat, sparks or flame. Take care to avoid any sources of ignition. The gases generated upon combustion contain carbon monoxide. Fine dust dispersed in the air has the potential for a dust explosion.
Specific Hazards	Contact with hot molten material may cause burns to the skin.

GHS Classification

Physical Hazards	Flammable solids	Classification not possible
	Self-reactive substances and mixtures	Classification not possible
	Pyrophoric solids	Not classified
	Self-heating substances and mixtures	Classification not possible
	Corrosive to metal	Classification not possible
Health Hazards	Acute toxicity(oral)	Classification not possible
	Acute toxicity (dermal)	Classification not possible
	Acute toxicity (inhalation: vapour)	Classification not possible
	Acute toxicity(inhalation: mists)	Classification not possible
	Skin corrosion/irritation	Classification not possible
	Eye damage/irritation	Classification not possible
	Sensitisation-respiratory	Classification not possible
	Sensitisation-skin	Classification not possible
	Germ cell mutagenicity	Classification not possible
	Carcinogenicity	Not classified
	Toxic to reproduction	Not classified
	Specific target organ toxicity (single exposure)	Not classified
	Specific target organ toxicity (repeated exposure)	Not classified
	Aspiration hazard	Classification not possible
Environmental Hazards	Hazardous to the aquatic environment- acute hazard	Classification not possible
	Hazardous to the aquatic environment- long-term hazard	Classification not possible
	Hazardous to the ozone layer	Classification not possible

Label Elements

Pictograms or Symbols	Not applicable
Signal Word	Not applicable
Hazard Statement	Not applicable
Precautionary Statement	Not applicable

3. Composition/Information on Ingredients

Substance/Mixture Mixture

Ingredient	Synonym(s)	Chemical Formula	CAS No.	Content (%)
Alkyl methacrylate/Alkyl acrylate copolymer	2-Methyl-2-propenoic acid methyl ester/Methyl-2-propenoate copolymer	$[(C_5H_8O_2)x - (C_4H_6O_2)y]z$	9011-87-4	Not less than 54.1%
Alkyl methacrylate/Alkyl acrylate/ Styrene copolymer	Methacrylic acid methyl ester/Butyl acrylate/Styrene copolymer	$[(C_5H_8O_2)w - (C_7H_{12}O_2)x - (C_8H_8)y]z$	27136-15-8	4.5–45%
Methyl methacrylate	Methyl methacrylate, MMA, Methyl-2-methylpropenoate	$CH_2 = C(CH_3)COOCH_3$	80-62-6	Not more than 0.8%
Methyl acrylate	Methyl-2-propenoate	$CH_2 = CHCOOCH_3$	96-33-3	Not more than 0.1%

4. First Aid Measures

Inhalation

Blow nose and gargle. In case of inhalation of gases or fumes from hot molten resin, immediately move the exposed person to fresh air and keep warm and at rest in a position comfortable for breathing, covering his/her body with a blanket or similar. Seek medical attention promptly. If breathing is shallow or has stopped, loosen tight clothing to maintain an open airway, and then provide oxygen or artificial respiration. If the person is breathing and vomiting, turn his/her head to the side. If unconscious, never give anything by mouth and never induce vomiting.

Skin Contact	Immediately remove contaminated clothing and shoes. Wash affected skin with running water or lukewarm water. If changes in the appearance of the affected area, for example, development of skin eruptions, are observed, or if skin irritation or pain persists, immediately seek medical attention. In the case of contact with molten material, immediately pour large amounts of water over the affected area without removing the exposed person's clothing to thoroughly cool it. Then remove the clothing, cover with clean gauze, etc. and promptly seek medical attention. Do not forcibly pull away materials or clothing attached to the skin.
Eye Contact	Flush with clean water for at least 15 minutes and immediately seek medical attention from an ophthalmologist. When washing the eye, hold the eyelids open using the thumb and index finger to ensure that effective rinsing has occurred behind the eyeball and the eyelid. Remove contact lenses if worn, unless they have adhered to eyes, and continue flushing. Do not allow the exposed person to rub his/her eyes or keep them tightly closed.
Ingestion	Wash mouth out thoroughly with water. Keep the exposed person warm and at rest, covering his/her body with a blanket, etc. Seek medical attention immediately. Provide artificial respiration or oxygen, if necessary. If the person is breathing and vomiting, turn his/her head to the side. If the exposed person is unconscious, never give anything by mouth and never induce vomiting.
Expected Acute and Delayed Symptoms	Inhalation: Irritation of nasal and pharyngeal mucosae, burning sensation in the respiratory tract, dizziness, drowsiness, headache, nausea, shortness of breath, sore throat, loss of consciousness, choking, asthmatic symptoms. Symptoms may be delayed. Skin contact: Irritation, redness, pain. Eye contact: Irritation, redness, pain. Ingestion (If swallowed): Vomiting and other symptoms similar to those listed under 'Inhalation.'
Most Important Signs and Symptoms	No information available.
Protection of First Aiders	Use personal protective equipment, such as gloves, goggles and masks, to avoid contact with hazardous substances. Remove contaminated clothing and protective equipment. Pay attention to avoid any sources of ignition.
Notes to the Physician	No information available.

5. Fire-fighting Measures

Extinguishing Media	Carbon dioxide, dry chemical powder, foam, large amounts of water
Inappropriate Extinguishing Media	No information available.

Specific Hazards	Since the gases generated upon combustion contain irritating, corrosive or toxic gases, such as carbon monoxide, etc., wear proper protective equipment to avoid inhalation of smoke during firefighting. Containers may explode if heated.
Special Firefighting Procedures	Extinguish fire using proper extinguishing media, shutting off the supply of combustive substances to the fire. Perform firefighting from the windward side of the fire as far as possible. Prevent unnecessary and unprotected personnel from entering the surrounding area of the fire. Since toxic gases (CO, etc.) may be generated upon combustion or contact with high temperatures, wear proper respiratory system protection. In case of surrounding fire, remove containers to a safe area. If it is impossible to remove containers, spray containers and their surroundings with water to cool them. Take any necessary measures to prevent the water stream used in firefighting from causing release of materials affecting the environment. Cool containers with flooding quantities of water until well after the fire is out.
Protection of Firefighters	Perform firefighting from the windward side of the fire to avoid inhalation of toxic gases. Always wear securely suitable protective equipment (gloves, eyeglasses, masks, etc.) for firefighting.

6. Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures	Wear proper protective equipment to avoid skin contact or inhalation of dust or gases. (for protective equipment, see '8. Exposure Controls/Personal Protection' of the SDS). Evacuate downwind personnel and perform the collection and cleaning up operations from the windward side. Immediately remove all possible sources of ignition from the areas where the spill occurred. Prepare firefighting equipment for cases where the material catches fire. Prevent unauthorised personnel from entering the spill or leak area by roping off the area or by other measures. Since the area where the spill occurred may be slippery, take care to avoid falls.
Environmental Precautions	Since this material may affect organisms and water quality in the environment, do not discharge spillage to rivers, streams, waterways, or sewers.
Collection, Neutralization	Sweep up the scattered materials to collect into airtight containers. If appropriate, first dampen the spillage to prevent dust generation. Collection should be performed in a manner so that no dust scattering occurs, by, for example, using a vacuum cleaner. Wash the contaminated area with detergent and water and ensure all contaminated washing water is collected into airtight containers (waste containers).
Methods and Materials for Containment and Cleaning Up	Stop the leak if safe to do so. Since the dust dispersed in the air has the potential for a dust explosion, use explosion-proof equipment to recover fine dust.

Measures to Prevent Secondary Accidents	Promptly remove all sources of ignition. (Prohibit smoking and avoid sparks and open flames.)

7. Handling and Storage

Handling

Technical Measures	Follow the engineering measures described in '8. Exposure Controls/Personal Protection' and wear proper protective equipment when handling the material. Install emergency eye wash stations and emergency showers in or near workplaces where this material is handled. Install equipment such as hand wash basins and eye wash stations, in a rest area or lounge.
Local and General Ventilation	Use local exhaust and general ventilation system described in '8. Exposure Controls/Personal Protection.'
Precautions for Safe Handling	Before using or handling this material, obtain instructions for use from the supplier. Do not handle before reading and understanding all of the safety precautions. Handle or use in a well-ventilated place. When handling the material outdoors, perform operations from the windward side as far as possible. Prevent unauthorised personnel from entering the area where this material is handled. Avoid rough handling, including falling, dropping, dragging, or inducing impacts on containers. Avoid contact with this material. Do not inhale, ingest or swallow this material. Do not eat, drink or smoke when using or handling this product. Handle the material wearing proper protective equipment to avoid contact with clothing, skin and mucous membranes, or eyes. Thoroughly wash hands and face and rinse mouth after handling. Contaminated work clothing should not be allowed out of the workplace. In addition, do not wear or carry contaminated protective equipment into rest areas or lounges.
Avoidance of Contact	See '10. Stability and Reactivity'.

Storage

Technical Measures	Keep away from any sources of ignition and heat. Avoid drastic changes of temperature. Install devices in the storage area to use the necessary daylight, lighting systems and ventilations required to store and/or handle the material.
Proper Storage Conditions	Store away from heat and sources of ignition, such as heat, sparks and open flame. No smoking. Store locked up in a cool and dry place away from direct sunlight.
Incompatible Substances	See '10. Stability and Reactivity'.

Safe Packaging Materials	

8. Exposure Controls/Personal Protection

Control Levels	Not established
Permissible Exposure Levels (Threshold Limit Value, Biological Exposure Indices)	
ACGIH	[Other dust (Class 3 Dust)] 3 mg/m^3 (Respirable dust) 10 mg/m^3 (Total dust) [Methyl methacrylate] 50 ppm (TWA), 100 ppm (STEL) [Methyl acrylate] 2 ppm (TWA)
Engineering Measures	Install emergency eye wash stations and emergency showers in or near the workplaces where this material is handled.

Protective Equipment

Respiratory System Protection	Dust mask
Hand Protection	Protective gloves. Wear heat resistant protective gloves when handling molten resin.
Eye Protection	Protective eyeglasses or goggles with side shields, full face-shields
Skin and Body Protection	Protective clothes (long-sleeved work clothes), cap, safety shoes, etc.
Hygiene Measures	Very little data on the health hazards of this material is available. In order to minimise exposure to this material, provide an improved working environment and handle this material wearing proper protective equipment to avoid breathing emitted vapour, dust, etc. Thoroughly wash hands after handling.

9. Physical and Chemical Properties

Appearance (Physical State, Form, Colour, etc.)	Colourless and transparent solid in pellet form
Odour	Odourless
pH	No data available
Melting Point and Freezing Point	This material does not exhibit a sharp melting point, but softens gradually over a wide temperature range over about 80 deg. C.

Boiling Point	No data available
Boiling Range	No data available
Flash Point	No data available
Combustion or Explosive Range	No data available
Vapour Pressure	No data available
Vapour Density	No data available
Specific Gravity (Density)	1.1 – 1.2
Solubility in Solvents	Water: Insoluble Organic solvents (acetone, chloroform, etc.): Soluble
Octanol-water Partition Coefficient	No data available
Auto-ignition Point	Ignition point: Not less than 400 deg. C
Decomposition Temperature	No data available
Other Data	No data available

10. Stability and Reactivity

Stability	Considered stable under normal conditions of storage, handling and use
Possibility of Hazardous Reactions	No reactivity
Conditions to Avoid	Heat, high temperatures
Incompatible Materials	Strong oxidising agents
Hazardous Decomposition Products	CO and other gases may be generated by thermal decomposition.

11. Toxicological Information

Acute Toxicity	[Alkyl methacrylate/Alkyl acrylate copolymer, Alkyl methacrylate/Alkyl acrylate/Styrene copolymer] Insufficient data (Not classified)
Oral	[Methyl methacrylate] Rat LD_{50} 8400–9400 mg/kg [Methyl acrylate] Rat LD_{50} 277 mg/kg

Dermal

[Methyl methacrylate]

Rabbit LD_{50} > 9400 mg/kg

[Methyl acrylate]

Rabbit LD_{50} 1,250 mg/kg

Inhalation

[Methyl methacrylate]

Vapour: Rat

LC_{50} (4H) 3570–7093 ppm

Since the value is not more than 90% of the saturated vapour concentration (36,525 ppm), it can be considered as an experimental value with 'vapour that hardly contains mists.'

[Methyl acrylate]

Vapour: Rat

LC_{50} (4H) 3.58, 5.7, 6.5, 4.83 mg/L. From these values, LC_{50} (4 hr. converted value) was calculated in accordance with technical guidelines and then it was converted into ppm. The converted value is 1,200 ppm. Since the saturated vapour pressure concentration at vapour pressure of 11,500 Pa (25 deg. C) (HSDB (2005)) is 114,000 ppm, LC_{50} (4 hr. converted value) is a concentration lower than 90% of the saturated vapour pressure concentration. The vapour is therefore considered to be a 'vapour in which mists are barely mixed.

Skin Corrosion/ Irritation

[Alkyl methacrylate/Alkyl acrylate copolymer, Alkyl methacrylate/Alkyl acrylate/Styrene copolymer]

Data is insufficient

[Methyl methacrylate]

Moderate skin irritation was observed in rabbits. On humans, contact dermatitis associated with papules and vesicles through occupational exposure develops.

[Methyl acrylate]

Necrosis was observed in the primary skin irritation in rabbits. (Category 1)

Serious Eye Damage /Eye Irritation

[Alkyl methacrylate/Alkyl acrylate copolymer, Alkyl methacrylate/Alkyl acrylate/Styrene copolymer]

Data is insufficient.

[Methyl methacrylate]

Moderate irritation was caused in rabbit eyes by 5% solution of this material. No effects on iris and cornea. In a conjunctival oedema, redness of grade 2 was observed after 24 hours.

[Methyl acrylate]

As a result of eye irritation tests in rabbits, 'intense irritation' and 'no recovery from conjunctival disorder is observed (in 7 days)' have been reported.

Respiratory Sensitization or Skin Sensitization

Respiratory sensitization:

[Alkyl methacrylate/Alkyl acrylate copolymer, Alkyl methacrylate/Alkyl acrylate/Styrene copolymer]

Data is insufficient

[Methyl methacrylate]

Classified as “sensitizing chemical substances” in the Guidelines for Prevention of Occupational Allergic Diseases (draft) edited by the Japan Society for Occupational Health and the special committee of the Japanese Society of Occupational and Environmental Allergy.

Substance in Group 2 of respiratory tract sensitization defined by the Japan Society for Occupational Health.

[Methyl acrylate]

Since no data is available, classification is impossible.

Skin sensitization:

[Alkyl methacrylate/Alkyl acrylate copolymer, Alkyl methacrylate/Alkyl acrylate/Styrene copolymer]

Data is insufficient (Not classified)

[Methyl methacrylate]

Substance in Group 2 of skin sensitization defined by the Japan Society for Occupational Health

Maximization test in guinea pigs: Positive (5% aqueous solution)

[Methyl acrylate]

Classified as “sensitizing chemical substances (which sensitizing properties have been just reported)” in the Guidelines for Prevention of Occupational Allergic Diseases (draft) edited by the Japan Society for Occupational Health and the special committee of the Japanese Society of Occupational and Environmental Allergy.

Substance in Group 2 of skin sensitization defined by the Japan Society for Occupational Health.

Germ Cell Mutagenicity

[Alkyl methacrylate/Alkyl acrylate copolymer, Alkyl methacrylate/Alkyl acrylate/Styrene copolymer]

Data is insufficient

[Methyl methacrylate]

Ames test: Negative, In vivo heritable germ cell mutagenicity test (dominant lethal test): Negative, In vivo germ cell mutagenicity test: Negative.

Data is insufficient

[Methyl acrylate]

Heritable germ cell mutagenicity test: Negative, In vivo germ cell mutagenicity test: Negative, In vivo somatic cell mutagenicity test (micronucleus test): Positive (Intraperitoneal injection), In vivo germ cell genotoxicity: Negative

Carcinogenicity

[Alkyl methacrylate/Alkyl acrylate copolymer, Alkyl methacrylate/Alkyl acrylate/Styrene copolymer]

IARC: Not listed

[Methyl methacrylate]

IARC: Group 3, ACGIH: A4, EPA: E, Not applicable

[Methyl acrylate]

IARC: 3 ACGIH: A4, EPA: D, Not applicable

Reproductive Toxicity

[Alkyl methacrylate/Alkyl acrylate copolymer, Alkyl methacrylate/Alkyl acrylate/Styrene copolymer]

Data is insufficient.

[Methyl methacrylate]

Inhalation (Rat) Teratogenicity test (Animals from days 6 to 15 of pregnancy): No teratogenicity

When a dose at which maternal toxicity (death, body weight loss, etc.) develops was given, foetal toxicity (early foetal death, decrease of crown rump length, development of haematoma) was observed.

Inhalation (Mouse) Teratogenicity test (Animals from days 6 to 15 of pregnancy):

[Methyl acrylate]

Since no data is available, classification is impossible

Specific Target Organ Toxicity (Single Exposure)

[Alkyl methacrylate/Alkyl acrylate copolymer, Alkyl methacrylate/Alkyl acrylate/Styrene copolymer]

Data is insufficient

[Methyl methacrylate]

In an inhalation exposure test with human volunteers, a short-term inhalation exposure experiment (197–1970 mg/m^3, 20–90 minutes) was conducted and results such as “Irritation of eyes and nasal mucosae, dizziness, drowsiness were observed” and “Irritation of respiratory tract, weakness, fever, dizziness, nausea, headache, drowsiness were observed” were reported. It is presumed that methyl methacrylate produces methanol through its metabolic process, and methanol as its metabolite exerts an inhibitory reaction on the central nervous system, and consequently transient anaesthetic effects are shown.

[Methyl acrylate]

In humans, this substance causes coma, convulsion, lacrimation and its vapour irritates eyes, respiratory tract, and the skin. Target organ toxicity is irritation of central nervous system, respiratory tract, etc.

Specific Target Organ Toxicity (Repeated Exposure)

[Alkyl methacrylate/Alkyl acrylate copolymer, Alkyl methacrylate/Alkyl acrylate/Styrene copolymer]

Data is insufficient (Not classified)

[Methyl methacrylate]

In an epidemiological investigation on people with long-term exposure to this substance, headaches, pain in hands and feet, extreme fatigue, sleep disorder, memory impairment, and irritation were reported. It is reported that effects such as atrophic rhinitis, sore throat, autonomic dysfunction, neurasthenia, headaches, dizziness, nervousness, attention disturbance, and decreased memory are present. Based on the above-mentioned results, target organs are the respiratory tract and the central nervous system, Category 1 (respiratory tract, central nervous system)

(Rat) Inhalation exposure test: exposure concentration 0, 25, 100, 400 ppm. 6 hrs/day, 5 days/week, 105 weeks

Effects: In animals given not less than 25 ppm of the substance, rhinitis in the epithelial mucosa of the nasal concha was observed. In observation of pathologic specimens, denaturation and atrophy in olfactory epithelia were observed in animals administered 100 ppm or 400 ppm of substance. The target organ is the respiratory organs, observed within the range of the guidance value.

[Methyl acrylate]

In experimental animals, “atrophy of olfactory epithelia, columnar cell layer deletion associated with piled basal cell hyperplasia,” and “increase in relative weight of kidney, increase of renal diseases” were observed.

Target organs are respiratory organs and kidneys, based on the guidance values classified in Category 1 (respiratory organs), Category 2 (kidneys) Damage to respiratory tract and central nervous system with long-term or repeated exposure.

Aspiration Hazard

[Alkyl methacrylate/Alkyl acrylate copolymer, Alkyl methacrylate/Alkyl acrylate/Styrene copolymer]

Data is insufficient

[Methyl methacrylate, Methyl acrylate]

Since no data is available, classification is impossible.

12. Ecological Information

Ecotoxicity

[Alkyl methacrylate/Alkyl acrylate copolymer, Alkyl methacrylate/Alkyl acrylate/Styrene copolymer]

Data is insufficient (Not classified)

Hazardous to the Aquatic Environment (Acute)

Fish

[Methyl methacrylate]
(Fathead Minnow) LC_{50} (96 hrs) 130–460 ppm (Intermediate value: 285 ppm)
(Bluegill (Lepomis macrochirus)) LC_{50} (96 hrs) 232–283 ppm (Intermediate value: 257.5 ppm)
(Guppy (Poecilia reticulata)) LC_{50} (96 hrs) 368 ppm
[Methyl acrylate]
(Sheepshead Minnow) LC_{50} (96 hrs) 1.1 mg/L (Category 2) (Medaka (Oryzias latipes)) LC_{50} (96 hrs) 1.36 mg/L

Crustacea

[Methyl methacrylate]
Daphnia magna EC_{50} (48 hrs) = 69 mg/L
[Methyl acrylate]
Daphnia magna EC_{50} (48 hrs) = 2.64 mg/L

Algae

[Methyl methacrylate]
Green algae LC_{50} (98 hrs) = 170 mg/L
[Methyl acrylate]
(Green algae) LC_{50} (72 hrs) = 6.9 mg/L

Hazardous to the Aquatic Environment (Chronic)

Persistency/ Degradability

[Methyl methacrylate] Readily biodegradable [Methyl acrylate] Rapidly biodegradable

Bioaccumulative Potential

[Methyl methacrylate] log Kow = 1.38 BCF = 2.3
[Methyl acrylate] log Kow = 0.8

Chronic Hazards to the Aquatic Environment

[Methyl methacrylate, Methyl acrylate]
Both ingredients are readily biodegradable and have also low bioaccumulative potential.
[Mixture]
Not classified (Classification of main ingredient is impossible)

Mobility in Soil

No information available

Other Adverse Effects

No information available

Environmental Standards

No information available

13. Disposal Considerations

Comply with the applicable laws and regulations regarding this product in each country.

14. Transport Information

International Regulations	Does not fall under the dangerous substances defined in the UN recommendation on the transport of dangerous goods.
Regulatory Information (Sea)	
UN No.	Not applicable
Proper Shipping Name	
UN Hazard Class	
UN Subsidiary Risk	
UN Packing Group	
Marine Pollutant	
Regulatory Information (Air)/IATA	
UN No.	Not applicable
Proper Shipping Name	
UN Hazard Class	
UN Subsidiary Risk	
UN Packing Group	
Domestic Regulations	
Regulatory Information (Land)	Transportation should be performed using containers, packaging, methods of labelling, loading and transportation in accordance with regulations of the respective country. Do not transport together with dangerous substances as listed in the Categories 1, 3 and 6 under the Fire Service Law (Japan).
Regulatory Information (Sea)	
UN No.	Not applicable
Proper Shipping Name	Not applicable
UN Hazard Class	
UN Packing Group	

Marine Pollutant	
Regulatory Information (Air)	
UN No.	Not applicable
Proper Shipping Name	
UN Hazard Class	
UN Packing Group	
Special Safety Measures	Make sure containers have no cracks, corrosions or leaks etc. before transportation. Load containers to ensure that they are protected from falling, dropping or being damaged, and securely prevent collapse of cargo piles. Transport carefully, taking any necessary measures to prevent containers from producing significant friction or trembling/shaking. Vehicles and ships should be equipped with protective equipment (gloves, eyeglasses, masks, etc.) as well as fire extinguishers and any tools necessary for emergencies.

15. Regulatory Information

Comply with the applicable laws and regulations regarding this product in each country.

16. Other Information

Disclaimer:
This data sheet is based on currently available documents, information and data. It does not provide definitive information on any of the contents, physicochemical properties, hazards, toxicity, or other details of the products. In addition, the precautions given in this document are based on ordinary handling. For special handling situation, safety measures should be implemented suitable to the purpose and usage.

This SDS applies to the following products:

SUMIPEX HTAAABS （AAA=001~999, B=0~9 or Not indicated, S=Q~W）