Material Safety Data Sheet (MSDS)

Part I Chemical Product and Company Identification

Popular name or trade name of chemical product	Water-borne styrene-acrylic copolymer emulsion
English name of chemical product	Styrene-Acrylic emulsion
Name of enterprise	Qingdao Highonour Chemical Tech Co., Ltd.
Address	No.3, East Xinchang Road, Xinhe Ecological Chemical Technology Base, Pingdu, Qingdao City, Shandong Province, China
Postal code	266717
E-mail address	business@highonour.com

Part II Composition/Information on Ingredients

Pure product: □ Mixture: √

Composition of harmful substances	Content (%)	CAS No.
Styrene and Acrylic Ester Polymer	47%±2%	25085-34-1
Water	53%±2%	7732-18-5

Part III Hazards Summarizing

Hazard class	Health, fire, reaction.
Routes of entry	Eye contact, skin contact, inhalation, ingestion.
	Health hazard: Eye contact, the contact can cause irritation.
Skin contact	No irritation against the skin, but the long-term contact can cause dermatitis.
Inhalation	No inhalation generally.
Ingestion	Irritate mouth, throat and stomach and can cause stomach disorder or injury.
Flammable and explosive danger	Noninflammable

Part IV First-aid Measures

Skin contact	Wash with soapy water.
Eye contact	Immediately lift the upper and lower eyelids to flush eyes with plenty of water for 15 minutes or more and send to hospital for treatment promptly.
Inhalation	No inhalation generally
Ingestion	Avoid inducing vomiting, if the sufferer is sober,

	give milk or water to dilute gastric juice, pay attention to keeping warm, keep at rest and send to hospital for treatment.

Part V Fire-fighting Measures

Hazard property	Flash point: ——— Spontaneous ignition point: ——— Flammable upper limit and lower limit: ———
Harmful combustion product	Nonflammable.
Fire-fighting method and fire extinguishing agent	———
Notices for fire fighting	———

Part VI Accidental Release Measures

Emergency handling	Avoid flowing into sewer to prevent the polymer from depositing to block the sewer. Absorb the spill with substance with strong absorbability.

Part VII Handling and Storage

Notices for operation	Use at well ventilated place.
Notices for storage	Sealed storage at 5-40°C

Part VIII Exposure Controls/Personal Protection

Maximum allowable concentration	———
Monitoring method	OSHA
Respiratory system protection	Avoid breathing its vapor or smoke for long time or repeatedly. If exceed the occupational exposure limits, please wear respirator approved by NIOSH.
Eye protection	Wear goggles.
Body protection	Use clothes in accordance with sanitary protection.
Hand protection	It is suggested to wear anti-seepage rubber gloves.
Other protections	Follow general precautions. Immediately replace the polluted clothes. Wash hands after work.

Part IX Physical and Chemical Properties

Appearance and properties	Light blue liquid
Relative density (water =1)	———
Boiling point (°C)	100
Relative vapor density (air =1)	1.0~1.15
Saturated vapor pressure	———

(mmHg)	
Heat of combustion (kJ/mol)	———
Critical temperature (°C)	40
Critical pressure (MPa)	———
Flash point($0^{O}C$)	———
Upper explosive limit % (V/V)	———
Ignition temperature (°C)	———
Lower explosive limit % (V/V)	———
Dissolvability	Soluble in water
Main applications	Water based coatings, interior wall paint, color tile paint & etc.

Part X Stability and Reactivity

Stability	Stable.
Band agents	Oxidant.
Hazard of polymerization	Nil.
Decomposition product	Can produce combustible and toxic gas during thermal decomposition

Part XI Toxicological Information

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

Acute toxicity	
Acute oral toxicity	Very low toxicity if swallowed. Harmful effects not anticipated from swallowing small amounts.
For these raw materials	LD50, Rat, > 5,000 mg/kg
Acute dermal toxicity	Prolonged skin contact is unlikely to result in absorption of harmful amounts.
For these raw materials	LD50, Rat, > 2000 mg/kg No deaths occurred at this concentration.
Acute inhalation toxicity	With good ventilation, single exposure is not expected to cause adverse effects. If material is heated or areas are poorly ventilated, vapor/mist may accumulate and cause respiratory irritation and symptoms such as headache and nausea.
For these raw materials	The LC50 has not been determined. Specific Target Organ Systemic Toxicity (Repeated Exposure)No relevant data found.
Skin corrosion/irritation	Brief contact is essentially nonirritating to skin.
Serious eye damage/eye	May cause moderate eye irritation.

irritation	May cause slight corneal injury.
Sensitization	
For skin sensitization	No relevant data found.
For respiratory sensitization	No relevant data found.
Specific Target Organ Systemic Toxicity (Single Exposure)	Evaluation of available data suggests that this material is not an STOT-SE toxicant.
Specific Target Organ Systemic Toxicity (Repeated Exposure)	No relevant data found.
Carcinogenicity	No relevant data found.
Teratogenicity	No relevant data found.
Reproductive toxicity	No relevant data found.
Mutagenicity	
For these raw materials	In vitro genetic toxicity studies were negative.
Aspiration Hazard	Based on physical properties, not likely to be an aspiration hazard.

Part XII	**Ecological Information**
Ecological toxicity:	Cam be harmful to aquatic organisms
Biodegradability:	Degradation.
Abiotic degradability:	Nil.

Part XIII	**Disposal**
Wastes properties	Hazardous waste √ Industrial solid waste √
Waste disposal methods	Disposal according to national or local laws and regulations.
Notices for wastes	There probably is chemical residue in the empty container. Even if it has been emptied, it shall also be disposed with reference to Material Safety Data Sheet (MSDS) and the label.

Part XIV	**Transport Information**
Notices for transport	Non-dangerous goods, avoid temperature above 40°C and below 5°C. Keep away from food, acid and alkali.

Part XV	**Regulatory Information**
Domestic laws and regulations	Convention on the Safe Use of Chemicals in Workplaces, Hazardous Chemicals Management Regulations, Regulations for the Supervision and Administration of Dangerous Goods Loaded by

International regulations	Ships etc. Recommendation for Safe Use of Chemicals in Workplaces, united nations Proposals on the Transport of Dangerous Chemical Goods.

Part XVI	**Regulatory Information**
Other information	Chemical Industry Publishing House publishes "Technical Complete Book on Safety of Hazardous Chemicals".

This information is based on a description of the product to the best of our knowledge, taking into account the safety-related needs of the product. This information should not be construed as a warranty against specific or general specifications. It is the responsibility of the user of the product to ensure that the product is suitable and satisfactory for its intended use and method of use. We are not responsible for any injury caused by the use of this information. In conclusion, our normal sales conditions still apply.