

Safety Data Sheet

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY/UNDERTAKING

Material Name	: Styrene Monomer
Product Code	: Q9211, Q9215
Other names / Synonyms	: Vinyl benzene Phenyl ethylene Phenyl ethene
Recommended use / Restrictions of use	: Base chemical for the production of polystyrene, rubbers and resins.
Supplier	: SHELL EASTERN CHEMICALS (S) A REGISTERED BUSINESS OF SHELL EASTERN TRADING (PTE) LTD (UEN:52812669E) ROBINSON RD. POST OFFICE PO Box 1820 Singapore 903620 Singapore
Telephone	: +65 6384 8737
Fax	: +65 6384 8454
Emergency Telephone Number	: +800 2537 8747 (ALERT SGS- toll Free) or +65 6542 9595 (ALERT SGS)
Other Information	: Data not available.

2. HAZARDS IDENTIFICATION

GHS Classification	: Flammable liquids, Category 3 Acute toxicity, Category 4 Skin irritation, Category 2 Serious eye damage/eye irritation, Category 2 Specific target organ toxicity - single exposure, Category 3, Respiratory tract irritation Aspiration hazard, Category 1 Specific target organ toxicity - repeated exposure, Category 1, Auditory system., Central nervous system (CNS). Acute hazards to the aquatic environment, Category 2
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GHS Label Elements

Symbol(s)	: 
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Signal Words	: Danger
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GHS Hazard statements : **PHYSICAL HAZARDS:**
H226: Flammable liquid and vapour.
HEALTH HAZARDS:
H304: May be fatal if swallowed and enters airways.
H332: Harmful if inhaled.
H315: Causes skin irritation.
H319: Causes serious eye irritation.
H335: May cause respiratory irritation.
H372: Causes damage to organs through prolonged or repeated exposure.
ENVIRONMENTAL HAZARDS:
H401: Toxic to aquatic life.

GHS Precautionary Statements

Prevention : P210: Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P233: Keep container tightly closed.
P240: Ground/bond container and receiving equipment.
P241: Use explosion-proof electrical/ventilating/lighting equipment.
P242: Use only non-sparking tools.
P243: Take precautionary measures against static discharge.
P260: Do not breathe dust/fume/gas/mist/vapours/spray.
P264: Wash hands thoroughly after handling.
P271: Use only outdoors or in a well-ventilated area.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection.

Response : P304+P340: IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
P303+P361+P353: IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.
P332+P313: If skin irritation occurs: Get medical advice/attention.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313: If eye irritation persists: Get medical advice/attention.
P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P312: Call a POISON CENTER or doctor/physician if you feel unwell.
P370+P378: In case of fire: Use appropriate media for extinction.

Storage : P403+P233: Store in a well-ventilated place. Keep container tightly closed.
P405: Store locked up.

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P235: Keep cool.

Disposal: : P501: Dispose of contents and container to appropriate waste site or reclaimer in accordance with local and national regulations.

Other Hazards which do not result in classification : Vapours are heavier than air. Vapours may travel across the ground and reach remote ignition sources causing a flashback fire danger.
 May form flammable/explosive vapour-air mixture.
 Highly reactive.
 Maintain dissolved oxygen and inhibitor at proper levels to prevent runaway polymerisation.
 Repeated exposure may cause skin dryness or cracking.

Aggravated Medical Condition : Pre-existing medical conditions of the following organ(s) or organ system(s) may be aggravated by exposure to this material: Central nervous system (CNS). Auditory system. Respiratory system.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Identity : Styrene Monomer
Synonyms : Vinyl benzene
 Phenyl ethylene
 Phenyl ethene
CAS No. : 100-42-5
EINECS No. : 202-851-5

Classification of components according to GHS

Chemical Name	Synonyms	CAS	Hazard Class (category)	Hazard statement	Conc.
Styrene		100-42-5	Flam. Liq., 3; Acute Tox., 4; Eye Dam., 2; Skin Irrit., 2; STOT SE, 3; STOT RE, 1; Asp. Tox., 1; Aquatic Acute, 2;	H226;H332;H319;H315;H335;H372;H304;H401;	100.00 %

Additional Information : Stabilised with tertiary butyl catechol. 10-15 ppm.

4. FIRST AID MEASURES

General Information : Take appropriate steps to avoid fire, explosion and inhalation hazards. DO NOT DELAY.

The first aid measures for different exposure routes:

Inhalation : Remove to fresh air. Do not attempt to rescue the victim unless

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	<p>proper respiratory protection is worn. If the victim has difficulty breathing or tightness of the chest, is dizzy, vomiting, or unresponsive, give 100% oxygen with rescue breathing or CPR as required and transport to the nearest medical facility.</p>
Skin Contact	: DO NOT DELAY. Remove contaminated clothing. Immediately flush skin with large amounts of water for at least 15 minutes, and follow by washing with soap and water if available. If redness, swelling, pain and/or blisters occur, transport to the nearest medical facility for additional treatment.
Eye Contact	: Immediately flush eyes with large amounts of water for at least 15 minutes while holding eyelids open. Transport to the nearest medical facility for additional treatment.
Ingestion	: If swallowed, do not induce vomiting; transport to nearest medical facility for additional treatment. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. If any of the following delayed signs and symptoms appear within the next 6 hours, transport to the nearest medical facility: fever greater than 101° F (38.3° C), shortness of breath, chest congestion or continued coughing or wheezing. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. Give nothing by mouth. Do NOT induce vomiting.
Notes to physician Most important symptoms and effects, both acute and delayed	: Breathing of high vapour concentrations may cause central nervous system (CNS) depression resulting in dizziness, light-headedness, headache, nausea and loss of coordination. Continued inhalation may result in unconsciousness and death. Eye irritation signs and symptoms may include a burning sensation, redness, swelling, and/or blurred vision. Respiratory irritation signs and symptoms may include a temporary burning sensation of the nose and throat, coughing, and/or difficulty breathing. Skin irritation signs and symptoms may include a burning sensation, redness, swelling, and/or blisters. Auditory system effects may include temporary hearing loss and/or ringing in the ears. Visual system disturbances may be evidenced by decreases in the ability to discriminate between colours.
Immediate medical attention, special treatment	: Potential for chemical pneumonitis. Call a doctor or poison control center for guidance.

5. FIRE FIGHTING MEASURES

Clear fire area of all non-emergency personnel.

Specific Hazards	: Flammable vapours may be present even at temperatures below the flash point. Sustained fire attack on vessels may result in a Boiling Liquid Expanding Vapour Explosion (BLEVE). Will float and can be reignited on surface water. The vapour is heavier than air, spreads along the ground and distant ignition is possible. Hazardous combustion products may include: Carbon monoxide. formaldehyde
Extinguishing Media	: Foam. Dry chemical powder, carbon dioxide, sand or earth may

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- Unsuitable Extinguishing Media** : be used for small fires only.
: Do not use water in a jet.
- Protective Equipment for Firefighters** : Proper protective equipment including breathing apparatus must be worn when approaching a fire in a confined space. Wear full protective clothing and self-contained breathing apparatus.
- Other Advice** : All storage areas should be provided with adequate fire fighting facilities. Evacuate the area of all non-essential personnel. Keep adjacent containers cool by spraying with water.

6. ACCIDENTAL RELEASE MEASURES

- Personal Precautions, Protective Equipment and Emergency Procedures** : Avoid inhaling vapour and/or mists.
: Stay upwind and keep out of low areas.
: Avoid contact with the skin.
: Isolate hazard area and deny entry to unnecessary or unprotected personnel.
: Extinguish any naked flames. Do not smoke. Remove ignition sources. Avoid sparks.
: Avoid contact with spilled or released material. Immediately remove all contaminated clothing. For guidance on selection of personal protective equipment see Chapter 8 of this Material Safety Data Sheet. For guidance on disposal of spilled material see Chapter 13 of this Material Safety Data Sheet.
- Environmental Precautions** : Remove all possible sources of ignition in the surrounding area.
: Use appropriate containment to avoid environmental contamination. Prevent from spreading or entering drains, ditches or rivers by using sand, earth, or other appropriate barriers. Attempt to disperse the vapour or to direct its flow to a safe location for example by using fog sprays. Take precautionary measures against static discharge. Ensure electrical continuity by bonding and grounding (earthing) all equipment.
: Use appropriate containment to avoid environmental contamination.
: Ventilate contaminated area thoroughly.
- Methods and Material for Containment and Clean Up** : Soak up residue with an absorbent such as clay, sand or other suitable material and dispose of properly.
: Shovel into a suitable clearly marked container for disposal or reclamation in accordance with local regulations.
: Flush contaminated area with plenty of water.
: Do not flush away residues with water. Retain as contaminated waste.
: For small liquid spills (< 1 drum), transfer by mechanical means to a labelled, sealable container for product recovery or safe disposal. Allow residues to evaporate or soak up with an appropriate absorbent material and dispose of safely. Remove contaminated soil and dispose of safely.
- Additional Advice** : Proper disposal should be evaluated based on regulatory status of this material (refer to Section 13), potential contamination

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from subsequent use and spillage, and regulations governing disposal in the local area. Local authorities should be advised if significant spillages cannot be contained. Observe all relevant local regulations. Notify authorities if any exposure to the general public or the environment occurs or is likely to occur. Risk of explosion. Inform the emergency services if liquid enters surface water drains. Vapour may form an explosive mixture with air. The vapour is heavier than air, spreads along the ground and distant ignition is possible. Run-off may cause a fire or explosion hazard. Monitor area with combustible gas indicator.

7. HANDLING AND STORAGE

- General Precautions** : Contaminated leather articles including shoes cannot be decontaminated and should be destroyed to prevent reuse. Properly dispose of any contaminated rags or cleaning materials in order to prevent fires. Air-dry contaminated clothing in a well-ventilated area before laundering.
- Precautions for Safe Handling** : Ambient. Extinguish any naked flames. Do not smoke. Remove ignition sources. Avoid sparks. Avoid breathing vapours or contact with material. Only use in well ventilated areas. Wash thoroughly after handling. On guidance on selection of personal protective equipment see Chapter 8 of this Material Safety Data Sheet. Ensure electrical continuity by bonding and grounding (earthing) all equipment. Restrict line velocity during pumping in order to avoid generation of electrostatic discharge (≤ 1 m/sec until fill pipe submerged to twice its diameter, then ≤ 7 m/sec). Avoid splash filling. Do NOT use compressed air for filling, discharging, or handling operations. Local exhaust ventilation is recommended. In accordance with good industrial hygiene practices, precautions should be taken to avoid breathing of material. Polymerisation may cause violent rupture of cargo tanks or piping. Surfaces that are sufficiently hot may ignite liquid material. Maintain dissolved oxygen and inhibitor at proper levels to prevent runaway polymerisation. The vapour is heavier than air, spreads along the ground and distant ignition is possible.
- Conditions for Safe Storage** : Extinguish any naked flames. Do not smoke. Remove ignition sources. Avoid sparks. Must be stored in a well-ventilated area, away from sunlight, ignition sources and other sources of heat. 25 °C / 77 °F maximum.
- Product Transfer** : Do not use compressed air for filling, discharging or handling. If positive displacement pumps are used, these must be fitted with a non-integral pressure relief valve. Ensure electrical continuity by bonding and grounding (earthing) all equipment. Restrict line velocity during pumping in order to avoid generation of electrostatic discharge (≤ 1 m/sec until fill pipe submerged to twice its diameter, then ≤ 7 m/sec). Avoid splash filling. Do NOT use compressed air for filling, discharging, or handling operations.
- Recommended Materials** : Epoxy resins. For containers or container linings, use stainless steel. Carbon steel

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- Unsuitable Materials** : Brass. Natural, butyl, neoprene or nitrile rubbers. Copper. PVC.
Container Advice : Containers, even those that have been emptied, can contain explosive vapours. Do not cut, drill, grind, weld or perform similar operations on or near containers.
Other Advice : Avoid contact with skin, eyes, and clothing. Ensure that all local regulations regarding handling and storage facilities are followed.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

If the American Conference of Governmental Industrial Hygienists (ACGIH) value is provided on this document, it is provided for information only.

Occupational Exposure Limits

Material	Source	Type	ppm	mg/m3	Notation
Styrene	ACGIH	TWA	20 ppm		
	ACGIH	STEL	40 ppm		
	SG OEL	TWA	50 ppm	213 mg/m3	
	SG OEL	STEL	100 ppm	426 mg/m3	

- Additional Information** : Wash hands before eating, drinking, smoking and using the toilet. Launder contaminated clothing before re-use.

Material	Source	Hazard Designation
Styrene	ACGIH	Not classifiable as a human carcinogen.

Biological Exposure Index (BEI)

Material	Determinant	Sampling time	BEI	Reference
Styrene				
	styrene in Venous blood	Sampling time: End of shift.	0.2 mg/l	ACGIH BEL (2008)
	Mandelic acid plus phenylglyoxylic acid in Creatinine in urine	Sampling time: End of shift.	400 mg/g	ACGIH BEL (2008)

- Appropriate Engineering Controls** : Local guidelines on emission limits for volatile substances must be observed for the discharge of exhaust air containing vapour. The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Select controls based on a risk assessment of local circumstances. Appropriate measures include: Use sealed systems as far as possible. Where material is heated, sprayed or mist formed, there is greater potential for airborne concentrations to be generated. Adequate ventilation to control airborne concentrations below the exposure guidelines/limits. Exhaust emission systems should be designed in accordance with local conditions; the air should always be moved away from the source of vapour generation and the person working at this point. Provide adequate ventilation in storage areas. Eye washes and showers

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Individual Protection Measures	: for emergency use.
Respiratory Protection	: Personal protective equipment (PPE) should meet recommended national standards. Check with PPE suppliers. : If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker health, select respiratory protection equipment suitable for the specific conditions of use and meeting relevant legislation. Select a filter suitable for combined particulate/organic gases and vapours [boiling point >65 °C (149 °F)] meeting EN14387 (AS/NZS:1716). Respiratory protective devices - Compressed air line breathing apparatus for use with a full face mask, half mask or a mouthpiece assembly - Requirements, testing, marking - Amendment 1.
Hand Protection	: Where hand contact with the product may occur the use of gloves approved to relevant standards (e.g. Europe: EN374, US: F739, AS/NZS:2161) made from the following materials may provide suitable chemical protection: Neoprene rubber. Nitrile rubber. Viton. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, glove thickness, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturizer is recommended.
Eye Protection	: Chemical splash goggles (chemical monogoggles).
Body protection	: Chemical resistant gloves/gauntlets, boots, and apron. Where risk of splashing or in spillage clean up, use chemical resistant one-piece overall with integral hood and chemical resistant gloves. Otherwise use chemical resistant apron and gauntlets.
Thermal hazards	: Not applicable
Monitoring Methods	: Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with an OEL and adequacy of exposure controls. For some substances biological monitoring may also be appropriate. Examples of sources of recommended air monitoring methods are given below or contact supplier. Further national methods may be available. National Institute of Occupational Safety and Health (NIOSH), USA: Manual of Analytical Methods, http://www.cdc.gov/niosh/nmam/nmammenu.html . Occupational Safety and Health Administration (OSHA), USA: Sampling and Analytical Methods http://www.osha.gov/dts/sltc/methods/toc.html Health and Safety Executive (HSE), UK: Methods for the Determination of Hazardous Substances, http://www.hsl.gov.uk/publications/mdhs.aspx . Institut für Arbeitsschutz der Deutschen Gesetzlichen Unfallversicherung (IFA), http://www.dguv.de/ifa/de/index.jsp L'Institut National de Recherche et de Sécurité, (INRS), France http://www.inrs.fr/securite/hygiene_securite_travail.html .
Environmental Exposure Controls	: Local guidelines on emission limits for volatile substances must be observed for the discharge of exhaust air containing vapour.

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9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: Colourless to yellowish Oily liquid.
Odour	: Aromatic hydrocarbon.
Odour threshold	: 0.1 ppm
pH	: Not applicable
Initial Boiling point and boiling range	: 145 °C / 293 °F
Melting / freezing point	: -31 °C / -24 °F
Flash point	: 32 °C / 90 °F(Abel)
Explosion / Flammability limits in air	: 1.1 - 6.1 %(V)
Auto-ignition temperature	: 490 °C / 914 °F
Flammability (solid, gas)	: Yes
Vapour pressure	: 670 Pa at 20 °C / 68 °F
Relative Density	:
	Data not available.
Density	: 906 kg/m ³ at 20 °C / 68 °F
Water solubility	: 0.29 kg/m ³ at 20 °C / 68 °F
Solubility in other solvents	: Organic solvents Soluble.
n-octanol/water partition coefficient (log Pow)	: 2.95
Decomposition temperature	: Note: Material is stable when properly inhibited and an appropriate dissolved oxygen level is maintained (see Storage in Chapter 7)., Polymerises with risk of fire and explosion., Reacts with strong oxidising agents.
Dynamic viscosity	: 0.7 mPa.s at 25 °C / 77 °F
Kinematic viscosity	: Data not available.
Vapour density (air=1)	: 3.6
Electrical conductivity	: < 50 pS/m
Coefficient of expansion	: 0.0011 / °C at 15 °C / 59 °F
Thermal conductivity	: 0.128 W/m °C at 110 °C / 230 °F : 0.159 W/m °C at 10 °C / 50 °F : 0.144 W/m °C at 60 °C / 140 °F
Evaporation rate (nBuAc=1)	: 12.4 (ASTM D 3539, nBuAc=1)
Surface tension	: 34 mN/m
Molecular weight	: 104.15 g/mol

10. STABILITY AND REACTIVITY

Chemical Stability	: Material is stable when properly inhibited and an appropriate dissolved oxygen level is maintained (see Storage in Chapter 7). Polymerises with risk of fire and explosion. Reacts with strong oxidising agents.
Conditions to Avoid	: Heat, flames, and sparks. Exposure to sunlight. Temperatures above 25 °C / 77 °F. Exposure to air.
Incompatible Materials	: Copper alloys. Strong oxidising agents. Halides.
Hazardous Decomposition Products	: Hazardous decomposition products are not expected to form during normal storage.

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Possibility of Hazardous Reactions	: Data not available.
Hazardous Polymerisation	: At high temperatures, for example fire conditions, exothermic polymerisation may occur causing possible container rupture. Dangerous polymerisation can occur on contact with highly catalytic surfaces. In case of contact with water the inhibitor concentration might decrease and cause polymerisation.
Sensitivity to Static Discharge	: Yes

11. TOXICOLOGICAL INFORMATION**Information on Toxicological effects**

Basis for Assessment	: Information given is based on product testing.
Likely Routes of Exposure	: Inhalation is the primary route of exposure although absorption may occur through skin contact or following accidental ingestion.
Acute Toxicity	
Acute Oral Toxicity	: Low toxicity: LD50 >5000 mg/kg
Acute Dermal Toxicity	: Expected to be of low toxicity: LD50 >5000 mg/kg
Acute Inhalation Toxicity	: Harmful if inhaled. LC50 > 10,0 - <= 20,0 mg/l
Skin Corrosion/Irritation	: Causes skin irritation.
Serious Eye Damage/Irritation	: Causes serious eye irritation.
Respiratory Irritation	: Data not available.
Respiratory or skin sensitization	: Not expected to be a sensitiser.
Aspiration hazard	: Aspiration into the lungs when swallowed or vomited may cause chemical pneumonitis which can be fatal.
Germ Cell Mutagenicity	: Not considered a mutagenic hazard.
Carcinogenicity	:
Reproductive and Developmental Toxicity	: Not expected to be a developmental toxicant. Causes foetotoxicity in animals at doses which are maternally toxic. Not expected to impair fertility.
Specific target organ toxicity - single exposure	: Inhalation of vapours or mists may cause irritation to the respiratory system.
Specific target organ toxicity - repeated exposure	: Causes damage to organs through prolonged or repeated exposure. Respiratory System: repeated exposure affects the respiratory system. Visual system: may cause decreased color perception. These subtle changes have not been found to lead to functional

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- colour vision deficits.
Auditory system: prolonged and repeated exposures to high concentrations have resulted in hearing loss in rats. Solvent abuse and noise interaction in the work environment may cause hearing loss.
Central nervous system: repeated exposure affects the nervous system.
- Additional Information** : Data not available.

12. ECOLOGICAL INFORMATION

- Basis for Assessment Ecotoxicity:** : Ecotoxicological data are based on product testing.
- Acute Toxicity**
- Fish** : Toxic: LC/EC/IC50 > 1 - <=10 mg/l
 - Aquatic crustacea** : Toxic: LC/EC/IC50 > 1 - <=10 mg/l
 - Algae/aquatic plants** : Toxic: LC/EC/IC50 > 1 - <=10 mg/l
 - Microorganisms** : Practically non toxic: LC/EC/IC50 > 100 mg/l
- Chronic Toxicity**
- Fish** : NOEC/NOEL expected to be > 0.1 - <= 1.0 mg/l (based on modeled data)
 - Aquatic crustacea** : NOEC/NOEL > 1.0 - <=10 mg/l (based on test data)
- Mobility** : Floats on water.
If product enters soil, it will be highly mobile and may contaminate groundwater.
- Persistence/degradability** : Readily biodegradable.
Oxidises rapidly by photo-chemical reactions in air.
- Bioaccumulative Potential** : Not expected to bioaccumulate significantly.
- Other Adverse Effects** : Data not available.

13. DISPOSAL CONSIDERATIONS

- Material Disposal** : Recover or recycle if possible. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste classification and disposal methods in compliance with applicable regulations. Do not dispose into the environment, in drains or in water courses. Waste product should not be allowed to contaminate soil or water.
- Container Disposal** : Drain container thoroughly. After draining, vent in a safe place away from sparks and fire. Residues may cause an explosion hazard. Do not puncture, cut or weld uncleaned drums. Send to drum recoverer or metal reclaimer.
- Local Legislation** :

14. TRANSPORT INFORMATION**Land (as per ADR classification): Regulated**

- Class : 3
Packing group : III

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Hazard identification no. : 39
UN number : 2055
Danger label (primary risk) : 3
UN proper shipping name : STYRENE MONOMER, STABILIZED
Environmental hazards : No

IMDG

Identification number : UN 2055
UN proper shipping name : STYRENE MONOMER, STABILIZED
Class / Division : 3
Packing group : III
Marine pollutant: : No

IATA (Country variations may apply)

UN number : 2055
UN proper shipping name : Styrene monomer, stabilized
Class / Division : 3
Packing group : III

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Pollution Category : Y
Ship Type : 3
Product Name : Styrene monomer
Special Precaution : Refer to Chapter 7, Handling & Storage, for special precautions which a user needs to be aware of or needs to comply with in connection with transport.

15. REGULATORY INFORMATION

The regulatory information is not intended to be comprehensive. Other regulations may apply to this material.

Chemical Inventory Status

AICS : Listed.
DSL : Listed.
INV (CN) : Listed.
ENCS (JP) : Listed. (3)-4
TSCA : Listed.
EINECS : Listed. 202-851-5
KECI (KR) : Listed. KE-35342
PICCS (PH) : Listed.

Local Regulations

Workplace Safety and Health Act & Workplace Safety and Health (General Provision) Regulations : This product is subject to the SDS, Labelling, PEL and other requirements in the Act/ Regulations.
Environmental Protection and Management Act and Environmental Protection : This product is not subject to control under this Act/ Regulation.

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and Management
(Hazardous Substances)
Regulations

Fire Safety Act and Fire Safety (Petroleum & Flammable Materials) Regulations : This product is subject to the requirement of this regulation.

Maritime and Port Authority of Singapore (Dangerous Goods, Petroleum and Explosives) Regulations : This product is subject to the requirement of this regulation.

16. OTHER INFORMATION**GHS Hazard statements**

H226 Flammable liquid and vapour.
H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H372 Causes damage to organs through prolonged or repeated exposure.
H401 Toxic to aquatic life.

MSDS Version Number : 3.1

MSDS Effective Date : 19.03.2012

MSDS Revisions : A vertical bar (|) in the left margin indicates an amendment from the previous version.

Uses and Restrictions : Base chemical for the production of polystyrene, rubbers and resins.

MSDS Distribution : The information in this document should be made available to all who may handle the product

Disclaimer : This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.