MATERIAL SAFETY DATA SHEET

Styrene

Section 1 - Chemical Product and Company Identification

MSDS Name:	Styrene, stabilized
Synonyms:	Ethenylbenzene

Company Identification: (INDIA)	DS Global Venture, [Registered office address], INDIA
For information in the INDIA, call:	Tel: +91 98933 53200 Email: [Email address]

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name:	%	EINECS#
100-42-5	Styrene, stabilized	>99%	202-851-5

Hazard Symbols:	XN
	
Risk Phrases:	10 20 36/38

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Flammable. Irritating to eyes and skin. Harmful by inhalation. Light sensitive.

Potential Health Effects

Eye:	Causes severe eye irritation. Contact produces irritation, tearing, and burning pain. May cause conjunctivitis. Causes redness and pain.
Skin:	Causes moderate skin irritation. May cause dermatitis. Causes redness and pain. May be harmful if absorbed through the skin.
Ingestion:	May cause central nervous system depression, kidney damage, and liver damage. May cause gastrointestinal irritation with nausea, vomiting and diarrhea. May be harmful if swallowed.
Inhalation:	Harmful if inhaled. Causes respiratory tract irritation. May cause irritation of the respiratory tract with burning pain in the nose and throat, coughing, wheezing, shortness of breath and pulmonary edema. May cause narcotic effects in high concentration.
Chronic:	May cause liver and kidney damage. Prolonged exposure may produce a narcotic effect. Prolonged or repeated exposure may cause nausea, dizziness, and headache. Repeated exposure may cause central nervous system damage. Limited evidence of a carcinogenic effect.

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Section 4 - First Aid Measures

Eyes:	Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.
Skin:	Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.
Ingestion:	Get medical aid. Wash mouth out with water.
Inhalation:	Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.
Notes to Physician:	Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information:	As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Vapors may form an explosive mixture with air. Vapors can travel to a source of ignition and flash back. Will burn if involved in a fire. Water may be ineffective. Material is lighter than water and a fire may be spread by the use of water. Forms peroxides of unknown stability. Flammable liquid and vapor.
Extinguishing Media:	Use water spray to cool fire-exposed containers. Use foam, dry chemical, or carbon dioxide. Water may be ineffective.

Section 6 - Accidental Release Measures

General Information:	Use proper personal protective equipment as indicated in Section 8.
Spills/Leaks:	Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Remove all sources of ignition. Use a spark-proof tool. Do not let this chemical enter the environment.

Section 7 - Handling and Storage

Handling:	Use spark-proof tools and explosion proof equipment. Avoid breathing dust, vapor, mist, or gas. Avoid contact with skin and eyes. Avoid ingestion and inhalation. Use only in a chemical fume hood.
Storage:	Keep away from sources of ignition. Do not store in direct sunlight. Store in a tightly closed container. Store in a dry area. Refrigerator/flammables. Containers should be dated when opened and tested periodically for the presence of peroxides.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

Exposure Limits

- United Kingdom, WEL - TWA: 100 ppm TWA; 430 mg/m3 TWA United Kingdom, WEL - STEL: 250 ppm STEL; 1080 mg/m3 STEL
- United States OSHA: 100 ppm TWA; 200 ppm Ceiling
- Belgium - TWA: 50 ppm VLE; 216 mg/m3 VLE Belgium - STEL: 100 ppm VLE; 432 mg/m3 VLE
- France - VME: 50 ppm VME; 215 mg/m3 VME
- Germany: 20 ppm TWA; 86 mg/m3 TWA
- Japan: 20 ppm OEL; 85 mg/m3 OEL
- Malaysia: 20 ppm TWA; 85.2 mg/m3 TWA

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- Netherlands: 25 ppm MAC; 107 mg/m3 MAC
- Russia: 10 mg/m3 TWA (vapour)
- Spain: 20 ppm VLA-ED; 86 mg/m3 VLA-ED Spain: 40 ppm VLA-EC; 172 mg/m3 VLA-EC

Personal Protective Equipment	
Eyes:	Wear chemical splash goggles.
Skin:	Wear appropriate protective gloves to prevent skin exposure.
Clothing:	Wear appropriate protective clothing to prevent skin exposure.
Respirators:	Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

Physical State:	Clear liquid
Color:	APHA: 10 max
Odor:	characteristic odor - penetrating odor - pungent odor
pH:	Not available
Vapor Pressure:	7mbar @20 deg C
Viscosity:	0.695 mPa.s @25 deg C
Boiling Point:	145 - 146 deg C @760mmHg
Freezing/Melting Point:	-31 deg C (-23.80°F)
Autoignition Temperature:	490 deg C (914.00 deg F)
Flash Point:	31 deg C (87.80 deg F)
Explosion Limits: Lower:	0.9 Vol %
Explosion Limits: Upper:	8 Vol %
Decomposition Temperature:	Not available
Solubility in water:	0.3 g/l (20°C)
Specific Gravity/Density:	0.906 g/cc
Molecular Formula:	C8H8
Molecular Weight:	104.15

Section 10 - Stability and Reactivity

Chemical Stability:	Prolonged exposure to air and sunlight may form unstable peroxides.
Conditions to Avoid:	High temperatures, incompatible materials, light, ignition sources, exposure to air, temperatures above 40°C.
Incompatibilities with Other Materials	Oxidizing agents, sulfuric acid, chlorosulfonic acid, oleum, dibenzoyl peroxide.
Hazardous Decomposition Products	Carbon monoxide, carbon dioxide.
Hazardous Polymerization	May occur.

Section 11 - Toxicological Information

RTECS#:	CAS# 100-42-5: WL3675000
LD50/LC50:	RTECS: **CAS# 100-42-5:** Draize test, rabbit, eye: 100 mg Severe; Draize test, rabbit, eye: 100 mg/24H Moderate; Draize test, rabbit, skin: 100% Moderate; Inhalation, mouse: LC50 = 21000 mg/m3/2H; Inhalation, mouse: LC50 = 9500 mg/m3/4H; Inhalation, rat: LC50 = 11800 mg/m3/4H; Oral, mouse: LD50 = 316 mg/kg; Oral, rat: LD50 = 2650 mg/kg;

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	Oral, rat: LD50 = 5000 mg/kg; Other:
Carcinogenicity:	Styrene, stabilized - IARC: Group 2B carcinogen
Other:	See actual entry in RTECS for complete information. The toxicological properties have not been fully investigated.

Section 12 - Ecological Information

Ecotoxicity:	Fish: Goldfish: LC50: 10 mg/L; 24h; Fish: Bluegill/Sunfish: LC50: 25 mg/L; 96h; Fish: Fathead Minnow: LC50: 32 mg/L; 96h; Daphnia: Daphnia: EC50: 4.7 mg/L; 48h;
Other:	Do not empty into drains. Log POW: 3.0

Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

Section 14 - Transport Information

	IATA	IMO	RID/ADR
Shipping Name:	STYRENE MONOMER, STABILIZED	STYRENE MONOMER, STABILIZED	STYRENE MONOMER, STABILIZED
Hazard Class:	3	3	3
UN Number:	2055	2055	2055
Packing Group:	III	III	III

USA RQ: CAS# 100-42-5: 1000 lb final RQ; 454 kg final RQ

Section 15 - Regulatory Information

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: XN

Risk Phrases:

- R 10 Flammable.
- R 20 Harmful by inhalation.
- R 36/38 Irritating to eyes and skin.

Safety Phrases:

- S 23 Do not inhale gas/fumes/vapour/spray.

WGK (Water Danger/Protection)

- CAS# 100-42-5: 2

Canada

- CAS# 100-42-5 is listed on Canada's DSL List

US Federal

- TSCA
- CAS# 100-42-5 is listed on the TSCA Inventory.

Section 16 - Other Information

MSDS Creation Date:	July 26, 2015
Revision #1 Date	

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