

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 10.12.2020

Version number 1

Revision: 09.12.2020

**SECTION 1: Identification of the substance/mixture and of the company/undertaking**

**1.1 Product identifier**

**Trade name:** Styrene

**CAS number:**

100-42-5

**EC number:**

202-851-5

**Index number:**

601-026-00-0

**1.2 Relevant identified uses of the substance or mixture and uses advised against**

**Sector of Use:** Product supplied for professional use only

**Relevant identified uses:** Monomer for the preparation of copolymers

**1.3 Details of the supplier of the safety data sheet**

**Manufacturer/Supplier:**

The Kuwait Styrene Company  
Petrochemical Industries Company (K.S.C.) Building  
Fahad Al Salem Street  
South Al Sabahiya Industrial Area, Block 19 1084, Kuwait  
Tel: +96523259585  
Email: info@equate.com

**Further information obtainable from:**

B-Lands Consulting  
5 Place Robert Schuman, BP 1516  
38025 Grenoble, FRANCE  
Tel: +33 476 295 869  
Fax: +33 476 295 870  
Email: clients@reachteam.eu  
www.reachteam.eu

**1.4 Emergency telephone number(s):**

NCEC - English Support Only:  
EMEA/Worldwide: +44 1865 407333  
Americas/Worldwide +1 202 464 2554  
APAC/Worldwide: +65 3165 2217  
NHS Direct: 111  
National Poisons Information Service (NPIS): 0121 507 4123 (healthcare professionals only).  
Ireland - National Poisons Information Centre: 01 837 9964 or 01 809 2566 (healthcare professionals only).

**SECTION 2: Hazards identification**

**2.1 Classification of the substance or mixture**

**Classification according to Regulation (EC) No 1272/2008**

Flam. Liq. 3 H226 Flammable liquid and vapour.  
Acute Tox. 4 H332 Harmful if inhaled.  
Skin Irrit. 2 H315 Causes skin irritation.  
Eye Irrit. 2 H319 Causes serious eye irritation.  
Repr. 2 H361d Suspected of damaging the unborn child.  
STOT RE 1 H372 Causes damage to the hearing organs through prolonged or repeated exposure.

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**Trade name:** Styrene**2.2 Label elements****Labelling according to Regulation (EC) No 1272/2008:**

The substance is classified and labelled according to the CLP regulation.

**Hazard pictograms:**

GHS02 GHS07 GHS08

**Signal word:** Danger**Hazard-determining components of labelling:**

Benzene, ethenyl-

**Hazard statements:**

H226 Flammable liquid and vapour.

H332 Harmful if inhaled.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H361d Suspected of damaging the unborn child.

H372 Causes damage to the hearing organs through prolonged or repeated exposure.

**Precautionary statements:**

- P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P260 Do not breathe dust/fume/gas/mist/vapours/spray.
- P264 Wash thoroughly after handling.
- P270 Do not eat, drink or smoke when using this product.
- P271 Use only outdoors or in a well-ventilated area.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P321 Specific treatment (see on this label).
- P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
- P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P312 Call a POISON CENTER/doctor if you feel unwell.
- P362+P364 Take off contaminated clothing and wash it before reuse.
- P332+P313 If skin irritation occurs: Get medical advice/attention.
- P337+P313 If eye irritation persists: Get medical advice/attention.
- P405 Store locked up.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

**2.3 Other hazards****Results of PBT and vPvB assessment****PBT:** Not applicable.**vPvB:** Not applicable.**SECTION 3: Composition/information on ingredients****3.1 Substances****CAS Number. Description.**

100-42-5 Benzene, ethenyl-

**Identification number(s)****EC number:** 202-851-5**Index number:** 601-026-00-0

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**Trade name:** Styrene

Hazardous components:		
CAS: 100-42-5	Benzene, ethenyl-	100%
EINECS: 202-851-5	Flam. Liq. 3, H226; Repr. 2, H361d; STOT RE 1, H372; Acute Tox.	
Index number: 601-026-00-0	4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319	

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

#### General information:

Immediately remove any clothing soiled by the product.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident is recommended.

#### After inhalation:

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

In case of unconsciousness place patient stably in the recovery position.

**After skin contact:** Immediately wash with water and soap and rinse thoroughly.

#### After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

### 4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

### 4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

**Suitable extinguishing agents:** Carbon dioxide (CO<sub>2</sub>). Dry chemical. Foam.

**For safety reasons unsuitable extinguishing agents:** Water with full jet.

### 5.2 Special hazards arising from the substance or mixture

During heating or in case of fire poisonous gases are produced.

### 5.3 Advice for firefighters

**Protective equipment:** Mouth respiratory protective device.

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Use respiratory protective device.

Use personal protective equipment. Keep unprotected persons away.

**6.2 Environmental precautions** Prevent seepage into sewage system, workpits and basements.

### 6.3 Methods and material for containment and cleaning up

Ensure adequate ventilation.

Dispose contaminated material as waste according to item 13.

### 6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

Open and handle receptacle with care.

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Prevent formation of aerosols.

**Information about fire - and explosion protection:**

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

Keep respiratory protective device available.

**7.2 Conditions for safe storage, including any incompatibilities****Requirements to be met by storerooms and receptacles:** No special requirements.**Information about storage in one common storage facility:** Not required.**Further information about storage conditions:** Keep container tightly closed.**7.3 Specific end use(s):** No further relevant information available.**SECTION 8: Exposure controls/personal protection****8.1 Control parameters****Ingredients with limit values that require monitoring at the workplace:****100-42-5 Benzene, ethenyl-**

WEL (Great Britain)	Short-term value: 1080 mg/m <sup>3</sup> , 250 ppm Long-term value: 430 mg/m <sup>3</sup> , 100 ppm
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**Additional information:** The lists valid during the making were used as basis.**8.2 Exposure controls****Personal protective equipment****General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Store protective clothing separately.

Avoid contact with the eyes and skin.

**Respiratory protection:**

In case of brief exposure use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

**Protection of hands:**

Protective gloves.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/the preparation/ the chemical mixture.

Select the glove material based on a consideration of the penetration times, rates of diffusion and the degradation.

**Material of gloves:**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

**Penetration time of glove material:**

The exact break through time must be determined by the manufacturer of the protective gloves.

**Eye protection:**

Safety goggles (EN 166).

Goggles recommended during refilling

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**Trade name:** Styrene**Body protection:** Protective work clothing.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### General Information

#### Appearance:

**Form:** Liquid.  
**Colour:** Clear.

**Odour:** Sweet.  
**Odour threshold:** Not determined.

**pH-value:** Not determined.

**Melting point/freezing point:** Not determined.

**Initial boiling point and boiling range:** 145.2 °C

**Flash point:** 31 °C

**Flammability (solid, gas):** Not determined.

**Ignition temperature:** 480 °C

**Decomposition temperature:** Not determined.

**Explosive properties:** Product is not explosive. However, formation of explosive air/vapour mixtures is possible.

#### Explosion limits:

**Lower:** 1.2 Vol %  
**Upper:** 8.9 Vol %

**Oxidising properties:** Not determined.

**Vapour pressure at 20 °C:** 6 hPa

**Density at 20 °C:** 0.906 g/cm<sup>3</sup>

**Relative density:** Not determined.

**Vapour density:** Not determined.

**Evaporation rate:** Not determined.

**Solubility in / Miscibility with Water:** Not determined.

**Partition coefficient: n-octanol/water:** Not determined.

#### Viscosity:

**Dynamic at 20 °C:** 0.73 mPas  
**Kinematic:** Not determined.  
**Solids content:** 0.0 %

**9.2 Other information** No further relevant information available.

## SECTION 10: Stability and reactivity

**10.1 Reactivity** No further relevant information available.

### 10.2 Chemical stability

#### Thermal decomposition / conditions to be avoided:

No decomposition if used and stored according to specifications.

**10.3 Possibility of hazardous reactions** No dangerous reactions known.

**10.4 Conditions to avoid** No further relevant information available.

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**Trade name:** Styrene**10.5 Incompatible materials** No further relevant information available.**10.6 Hazardous decomposition products**

Thermal decomposition products include carbon monoxide and carbon dioxide.

**SECTION 11: Toxicological information****11.1 Information on toxicological effects****Acute toxicity**

Harmful if inhaled.

**LD/LC50 values:****100-42-5 Benzene, ethenyl-**

Oral	LD50	5,000 mg/kg (Rat)
Inhalative	LC50/4h	24 mg/L (Rat)

**Primary irritant effect:****Skin corrosion/irritation:**

Causes skin irritation.

**Serious eye damage/irritation:**

Causes serious eye irritation.

**Respiratory or skin sensitisation:** Based on available data, the classification criteria are not met.**CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction):**

Repr. 2

**Germ cell mutagenicity:** Based on available data, the classification criteria are not met.**Carcinogenicity:** Based on available data, the classification criteria are not met.**Reproductive toxicity:**

Suspected of damaging the unborn child.

**STOT-single exposure:** Based on available data, the classification criteria are not met.**STOT-repeated exposure:**

Causes damage to the hearing organs through prolonged or repeated exposure.

**Aspiration hazard:** Based on available data, the classification criteria are not met.**SECTION 12: Ecological information****12.1 Toxicity****Aquatic toxicity:** No further relevant information available.**12.2 Persistence and degradability** No further relevant information available.**12.3 Bioaccumulative potential** No further relevant information available.**12.4 Mobility in soil** No further relevant information available.**Additional environmental information:****General notes:**

Water hazard class 2 (German Regulation) (Assessment by list): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

**12.5 Results of PBT and vPvB assessment****PBT:** Not applicable.**vPvB:** Not applicable.**12.6 Other adverse effects** No further relevant information available.**SECTION 13: Disposal considerations****13.1 Waste treatment methods****Recommendation:** Do not allow product to reach sewage system.

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**Trade name:** Styrene**Uncleaned packaging:****Recommendation:**

Disposal must be made in accordance with official regulations.

Packaging that may not be cleansed must be disposed of in the same manner as the product.

## SECTION 14: Transport information

**14.1 UN Number**

ADR, IMDG, IATA

UN2055

**14.2 UN proper shipping name**

ADR

IMDG, IATA

2055 STYRENE MONOMER, STABILIZED  
STYRENE MONOMER, STABILIZED**14.3 Transport hazard class(es)**

ADR, IMDG, IATA



Class

3 Flammable liquids.

Label

3

**14.4 Packing group**

ADR, IMDG, IATA

III

**14.5 Environmental hazards**

Not applicable.

**14.6 Special precautions for user**

Warning: Flammable liquids.

Hazard identification number (Kemler code):

39

EMS Number:

3-07

Stowage Category

C

Stowage Code

SW1 Protected from sources of heat.

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

Not applicable.

**Transport/Additional information:**

ADR

Excepted quantities (EQ)

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

Tunnel restriction code:

D/E

IMDG

Limited quantities (LQ)

5L

Excepted quantities (EQ)

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

## SECTION 15: Regulatory information

**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

**Directive 2012/18/EU****Named dangerous substances - ANNEX I** Substance is not listed.**Seveso category** P5c FLAMMABLE LIQUIDS**Qualifying quantity (tonnes) for the application of lower-tier requirements** 5,000 t**Qualifying quantity (tonnes) for the application of upper-tier requirements** 50,000 t

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**Trade name:** Styrene**REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3
**DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**

Substance is not listed.

**15.2 Chemical safety assessment** A Chemical Safety Assessment has not been carried out.
**SECTION 16: Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

**Relevant phrases**

H226 Flammable liquid and vapour.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H361d Suspected of damaging the unborn child.

H372 Causes damage to the hearing organs through prolonged or repeated exposure.

**Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Flam. Liq. 3: Flammable liquids – Category 3

Acute Tox. 4: Acute toxicity - inhalation – Category 4

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

Repr. 2: Reproductive toxicity – Category 2

STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1