

## Section 1: Identification of the substance/mixture and of the company/undertaking

### 1.1. Product identifier

**Product name:** PHENYLETHENE MONOMER

**CAS number:** 100-42-5

**EINECS number:** 202-851-5

**Index number:** 601-026-00-0

**Product code:** A70129

**Synonyms:** STYRENE

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

**Use of substance / mixture:** Laboratory Chemicals, Manufacture of Substances.

### 1.3. Details of the supplier of the safety data sheet

**Company name:** PHILIP HARRIS

2 Gregory Street

Hyde

Cheshire

SK14 4HR

United Kingdom

**Tel:** +44 (0)845 1200 506

**Fax:** +44 (0)161 367 2140

**Email:** [enquiries@philipharris.co.uk](mailto:enquiries@philipharris.co.uk)

### 1.4. Emergency telephone number

**Emergency tel:** +44 (0) 845 1200 506

## Section 2: Hazards identification

### 2.1. Classification of the substance or mixture

**Classification under CLP:** STOT RE 1: H372; Acute Tox. 4: H332; Eye Irrit. 2: H319; Flam. Liq. 3: H226; Repr. 2: H361fd; Skin Irrit. 2: H315

**Most important adverse effects:** Flammable liquid and vapour. Causes skin irritation. Causes serious eye irritation. Harmful if inhaled. Suspected of damaging fertility. Suspected of damaging the unborn child. Causes damage to organs through prolonged or repeated exposure.

### 2.2. Label elements

**Label elements:**

**Hazard statements:** H226: Flammable liquid and vapour.

H315: Causes skin irritation.

H319: Causes serious eye irritation.

# SAFETY DATA SHEET

## PHENYLETHENE MONOMER

Page: 2

H332: Harmful if inhaled.

H361fd: Suspected of damaging fertility. Suspected of damaging the unborn child.

H372: Causes damage to organs through prolonged or repeated exposure.

**Signal words:** Danger

**Hazard pictograms:** GHS02: Flame

GHS07: Exclamation mark

GHS08: Health hazard



**Precautionary statements:** P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P241: Use explosion-proof electrical/ventilating/lighting/.. equipment.

P260: Do not breathe dust/fumes/gas/mist/vapours/spray.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P302+352: IF ON SKIN: Wash with plenty of water/.

P303+361+353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P201: Obtain special instructions before use.

P261: Avoid breathing dust/fumes/gas/mist/vapours/spray.

P304+340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P308+313: IF exposed or concerned: Get medical advice/attention.

### 2.3. Other hazards

**Other hazards:** Danger of serious damage to health by prolonged exposure.

**PBT:** This product is not identified as a PBT/vPvB substance.

## Section 3: Composition/information on ingredients

### 3.1. Substances

**Chemical identity:** STYRENE

**CAS number:** 100-42-5

**EINECS number:** 202-851-5

## Section 4: First aid measures

### 4.1. Description of first aid measures

**Skin contact:** Remove all contaminated clothes and footwear immediately unless stuck to skin. Wash immediately with plenty of soap and water. Take victim immediately to hospital. Consult a doctor.

**Eye contact:** Bathe the eye with running water for 15 minutes. Consult a doctor.

**Ingestion:** Wash out mouth with water. Never give anything by mouth to an unconscious person Do not induce vomiting. Consult a doctor.

[cont...]

# SAFETY DATA SHEET

## PHENYLETHENE MONOMER

Page: 3

**Inhalation:** Remove casualty from exposure ensuring one's own safety whilst doing so. If breathing is irregular or stopped, administer artificial respiration. Consult a doctor.

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

**Skin contact:** There may be irritation and redness at the site of contact.

**Eye contact:** There may be irritation and redness. The eyes may water profusely.

**Ingestion:** There may be soreness and redness of the mouth and throat.

**Inhalation:** Exposure may cause coughing or wheezing.

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

**Immediate / special treatment:** IF exposed or if you feel unwell: Call a POISON CENTRE or DOCTOR. Show this safety data sheet to the doctor in attendance. The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

## Section 5: Fire-fighting measures

### 5.1. Extinguishing media

**Extinguishing media:** Suitable extinguishing media for the surrounding fire should be used. Use water spray to cool containers. CO<sub>2</sub>, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.

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

**Exposure hazards:** In combustion emits toxic fumes. In combustion emits toxic fumes of carbon dioxide / carbon monoxide. In combustion emits toxic fumes of nitrogen oxides. In combustion emits toxic fumes of hydrogen chloride / phosgene.

### 5.3. Advice for fire-fighters

**Advice for fire-fighters:** Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

## Section 6: Accidental release measures

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

**Personal precautions:** Do not attempt to take action without suitable protective clothing - see section 8 of SDS. Turn leaking containers leak-side up to prevent the escape of liquid. Refer to section 8 of SDS for personal protection details. Evacuate the area immediately. Wear respiratory protection. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. Remove sources of ignition.

### 6.2. Environmental precautions

**Environmental precautions:** Do not discharge into drains or rivers. Contain the spillage using bunding. Alert the neighbourhood to the presence of fumes or gas.

[cont...]

**SAFETY DATA SHEET**  
PHENYLETHENE MONOMER

Page: 4

**6.3. Methods and material for containment and cleaning up**

**Clean-up procedures:** Absorb into dry earth or sand. Transfer to a closable, labelled salvage container for disposal by an appropriate method. Clean-up should be dealt with only by qualified personnel familiar with the specific substance. Contain spillage, and then collect with an electronically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). Keep in suitable, closed containers for disposal.

**6.4. Reference to other sections**

**Reference to other sections:** Refer to section 13 of SDS.

**Section 7: Handling and storage**

**7.1. Precautions for safe handling**

**Handling requirements:** Avoid direct contact with the substance. Avoid the formation or spread of mists in the air. Ensure there is sufficient ventilation of the area. Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Keep away from sources of ignition - no smoking. Take measures to prevent build up of electrostatic charge. For precautions see section 2.2

**7.2. Conditions for safe storage, including any incompatibilities**

**Storage conditions:** Store in a cool, well ventilated area. Keep container tightly closed. Containers which are open must be carefully resealed and kept upright to prevent leakage. Handle and store under inert gas. Light sensitive Storage class (TRGS 510): Non-combustible, acute toxic Cat. 1 and 2 / very toxic hazardous materials

**7.3. Specific end use(s)**

**Specific end use(s):** Apart from uses mentioned in section 1.2 no other specific uses are stipulated.

**Section 8: Exposure controls/personal protection**

**8.1. Control parameters**

**Hazardous ingredients:**

**STYRENE**

**Workplace exposure limits:**

**Respirable dust**

State	8 hour TWA	15 min. STEL	8 hour TWA	15 min. STEL
UK	430 mg/m <sup>3</sup>	1080 mg/m <sup>3</sup>	-	-

**DNEL/PNEC Values**

**DNEL / PNEC** No data available.

**8.2. Exposure controls**

**Engineering measures:** Ensure there is sufficient ventilation of the area. Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

[cont...]

**SAFETY DATA SHEET**  
PHENYLETHENE MONOMER

Page: 5

**Respiratory protection:** Self-contained breathing apparatus must be available in case of emergency. Where risk assessment shows air-purifying respirators are appropriate use a full face respirator with multi purpose combination (US) or type AXBEK (EN14387 respirator cartridges as a back up to engineering controls. If the respirator is the sole means of protection use a full face supplied air respirator. Use respirators and components tested & approved under appropriate government standards eg CEN (EU) or NIOSH (US).

**Hand protection:** Impermeable gloves. Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching the gloves outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use.

Wash and dry hands. Full contact

Material: Fluorinated rubber

Minimum layer thickness: 0.7 mm

Break through time: 480 min

Material tested: Vitoject® (KCL 890 / Aldrich Z677698, Size M) Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

**Eye protection:** Tightly fitting safety goggles. Faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN166(EU). Ensure eye bath is to hand.

**Skin protection:** Impermeable protective clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Environmental:** Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

**Section 9: Physical and chemical properties**

**9.1. Information on basic physical and chemical properties**

**State:** Liquid

**Colour:** Light Green

**Odour:** No data available

**Evaporation rate:** No data available.

**Oxidising:** No data available.

**Solubility in water:** Soluble

**Viscosity:** No data available.

**Boiling point/range°C:** 145

**Melting point/range°C:** -6

**Flammability limits %: lower:** 1.3

**upper:** 23

**Flash point°C:** 32

**Part.coeff. n-octanol/water:** No data available.

**Autoflammability°C:** No data available.

**Vapour pressure:** No data available.

**Relative density:** No data available.

[cont...]

**SAFETY DATA SHEET**  
PHENYLETHENE MONOMER

Page: 6

pH: 8.8

VOC g/l: No data available.

**9.2. Other information**

Other information: No data available.

**Section 10: Stability and reactivity**

**10.1. Reactivity**

Reactivity: No data available.

**10.2. Chemical stability**

**Chemical stability:** Stable under recommended storage conditions Contains the following stabiliser(s):  
4-tert-Butylpyrocatechol (>=30 - <=50 ppm)

**10.3. Possibility of hazardous reactions**

Hazardous reactions: No data available.

**10.4. Conditions to avoid**

Conditions to avoid: Sparks Heat. Flames. May polymerize on exposure to light.

**10.5. Incompatible materials**

Materials to avoid: Strong oxidising agents. Copper.

**10.6. Hazardous decomposition products**

Haz. decomp. products: In combustion emits toxic fumes. In the event of fire see section 5.

**Section 11: Toxicological information**

**11.1. Information on toxicological effects**

**Toxicity values:**

Route	Species	Test	Value	Units
DERMAL	RAT	LD50	2,000	mg/kg
VAPOURS	RAT	LD50	12,000	ppmV
ORAL	RAT	LD50	840	mg/kg

**Hazardous ingredients:**

**STYRENE**

IVN	MUS	LD50	90	mg/kg
ORL	MUS	LD50	316	mg/kg
ORL	RAT	LD50	2650	mg/kg

[cont...]

**SAFETY DATA SHEET**  
PHENYLETHENE MONOMER

Page: 7

**Relevant hazards for substance:**

Hazard	Route	Basis
Acute toxicity (ac. tox. 4)	INH	Hazardous: calculated
Skin corrosion/irritation	DRM	Hazardous: calculated
Serious eye damage/irritation	OPT	Hazardous: calculated
Reproductive toxicity	--	Hazardous: calculated
STOT-repeated exposure	-	Hazardous: calculated

**Symptoms / routes of exposure**

**Skin contact:** There may be irritation and redness at the site of contact.

**Eye contact:** There may be irritation and redness. The eyes may water profusely.

**Ingestion:** There may be soreness and redness of the mouth and throat.

**Inhalation:** Exposure may cause coughing or wheezing.

**Section 12: Ecological information**

**12.1. Toxicity**

**Ecotoxicity values:** No data available.

**12.2. Persistence and degradability**

**Persistence and degradability:** Biodegradable.

**12.3. Bioaccumulative potential**

**Bioaccumulative potential:** No bioaccumulation potential.

**12.4. Mobility in soil**

**Mobility:** Readily absorbed into soil.

**12.5. Results of PBT and vPvB assessment**

**PBT identification:** This product is not identified as a PBT/vPvB substance.

**12.6. Other adverse effects**

**Other adverse effects:** Negligible ecotoxicity.

**Section 13: Disposal considerations**

**13.1. Waste treatment methods**

**Disposal operations:** Transfer to a suitable container and arrange for collection by specialised disposal company. Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company.

**Disposal of packaging:** Dispose of as unused product.

**NB:** The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

[cont...]

**SAFETY DATA SHEET**  
PHENYLETHENE MONOMER

Page: 8

**Section 14: Transport information**

**14.1. UN number**

UN number: UN2055

**14.2. UN proper shipping name**

Shipping name: STYRENE MONOMER, STABILIZED

**14.3. Transport hazard class(es)**

Transport class: 3

**14.4. Packing group**

Packing group: III

**14.5. Environmental hazards**

Environmentally hazardous: No

Marine pollutant: No

**14.6. Special precautions for user**

Tunnel code: D/E

Transport category: 3

**Section 15: Regulatory information**

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

Specific regulations: Not applicable.

**15.2. Chemical Safety Assessment**

**Section 16: Other information**

**Other information**

**Other information:** This safety data sheet is prepared in accordance with Commission Regulation (EU) No 453/2010.

\* indicates text in the SDS which has changed since the last revision.

**Phrases used in s.2 and s.3:** H226: Flammable liquid and vapour.

H315: Causes skin irritation.

H319: Causes serious eye irritation.

H332: Harmful if inhaled.

H361fd: Suspected of damaging fertility. Suspected of damaging the unborn child.

H372: Causes damage to organs <or state all organs affected, if known> through prolonged or repeated exposure <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>.

**Legal disclaimer:** The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.