

# Safety Data Sheet



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

Revision Date: 08/29/2016  
Print Date: 11/17/2021

### 1.1 Production identifiers

Product name : STYRENE  
Brand : CJ Chemicals LLC  
CAS-No. : 100-42-5

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

Identified uses : Laboratory chemicals, synthesis of substances

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

Company : CJ Chemicals LLC  
3469 E Grand River Rd #112  
Howell, MI 48843  
United States

Telephone : +1 (888) 274-1044

### 1.4 Emergency Telephone

Emergency Phone # : 1-800-424-9300 CHEMTREC (USA)  
1-703-527-3887 CHEMTREC (international) 24 hours/day; 7 days/week

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

#### Classification acc. to GHS

Section	Hazard class	Cat-egory	Hazard class and category	Hazard statement
2.6	Flammable liquid	3	Flam. Liq. 3	H226
3.1I	Acute toxicity (inhal.)	4	Acute Tox. 4	H332
3.2	Skin corrosion/irritation	2	Skin Irrit. 2	H315
3.3	Serious eye damage/eye irritation	2	Eye Irrit. 2	H319
3.7	Reproductive toxicity	2	Repr. 2	H361d

# Safety data sheet Safety data sheet

acc. to Safe Work Australia - Code of Practice

## Styrene $\geq 99,5$ %, for synthesis, stabilized

article number: 2641

Section	Hazard class	Cat-egory	Hazard class and category	Hazard statement
3.9	Specific target organ toxicity - repeated exposure	1	STOT RE 1	H372
3.10	Aspiration hazard	1	Asp. Tox. 1	H304

For full text of abbreviations: see SECTION 16

### The most important adverse physicochemical, human health and environmental effects

Delayed or immediate effects can be expected after short or long-term exposure. The product is combustible and can be ignited by potential ignition sources.

## 2.2 Label elements

### Labelling

#### Signal word

**Danger**

#### Pictograms

GHS02, GHS07,  
GHS08



#### 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
H361d	Suspected of damaging the unborn child
H372	Causes damage to organs through prolonged or repeated exposure

#### Precautionary statements

##### **Precautionary statements - prevention**

P210	Keep away from heat/sparks/open flames/hot surfaces. - No smoking
P260	Do not breathe dust/fume/gas/mist/vapours/spray

##### **Precautionary statements - response**

P301+P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
P302+P352	IF ON SKIN: Wash with plenty of soap and water
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P331	Do NOT induce vomiting
P370+P378	In case of fire: Use sand, carbon dioxide or powder extinguisher for extinction

##### **Precautionary statements - storage**

P403+P235	Store in a well-ventilated place. Keep cool
-----------	---

For professional users only

# Safety data sheet Safety data sheet

acc. to Safe Work Australia - Code of Practice

## Styrene $\geq 99,5$ %, for synthesis, stabilized

article number: 2641

### 2.3 Other hazards

#### Results of PBT and vPvB assessment

According to the results of its assessment, this substance is not a PBT or a vPvB.

#### Endocrine disrupting properties

The substance has an endocrine disrupting potential.

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Name of substance	Styrene
Molecular formula	C <sub>8</sub> H <sub>8</sub>
Molar mass	104.2 g/mol
CAS No	100-42-5

#### To stabilise:

Name of substance	Identifier	Wt%
4-tert-butylpyrocatechol	CAS No 98-29-3	0.001 – 0.0015

For full text of abbreviations: see SECTION 16

## SECTION 4: First aid measures

### 4.1 Description of first aid measures



#### General notes

Take off contaminated clothing.

#### Following inhalation

Provide fresh air. In all cases of doubt, or when symptoms persist, seek medical advice.

#### Following skin contact

Rinse skin with water/shower. In case of skin irritation, consult a physician.

#### Following eye contact

Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart. In case of eye irritation consult an ophthalmologist.

#### Following ingestion

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). Observe aspiration hazard if vomiting occurs.

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

Irritation, Localised redness, Pruritis, Malaise, Headache, Nausea, Vomiting, Aspiration hazard

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

none

# Safety data sheet Safety data sheet

acc. to Safe Work Australia - Code of Practice

## Styrene $\geq 99,5$ %, for synthesis, stabilized

article number: 2641

### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media



##### Suitable extinguishing media

co-ordinate firefighting measures to the fire surroundings  
water spray, dry extinguishing powder, BC-powder, carbon dioxide (CO<sub>2</sub>)

##### Unsuitable extinguishing media

water jet

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

Combustible. In case of insufficient ventilation and/or in use, may form flammable/explosive vapour-air mixture. Solvent vapours are heavier than air and may spread along floors. Places which are not ventilated, e.g. unventilated below ground level areas such as trenches, conduits and shafts, are particularly prone to the presence of flammable substances or mixtures. Vapours are heavier than air, spread along floors and form explosive mixtures with air. Vapours may form explosive mixtures with air.

##### Hazardous combustion products

In case of fire may be liberated: Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>)

#### 5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Fight fire with normal precautions from a reasonable distance. Wear self-contained breathing apparatus.

### SECTION 6: Accidental release measures

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



##### For non-emergency personnel

Use personal protective equipment as required. Avoid contact with skin, eyes and clothes. Do not breathe vapour/spray. Avoidance of ignition sources.

#### 6.2 Environmental precautions

Keep away from drains, surface and ground water. Danger of explosion.

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

##### Advice on how to contain a spill

Covering of drains.

##### Advice on how to clean up a spill

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

##### Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

# Safety data sheet Safety data sheet

acc. to Safe Work Australia - Code of Practice

## Styrene $\geq 99,5$ %, for synthesis, stabilized

article number: 2641

### 6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Provision of sufficient ventilation. Avoid exposure.

#### Measures to prevent fire as well as aerosol and dust generation



Keep away from sources of ignition - No smoking.

Take precautionary measures against static discharge.

#### Advice on general occupational hygiene

Wash hands before breaks and after work. Keep away from food, drink and animal feedingstuffs. When using do not smoke.

### 7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed.

#### Incompatible substances or mixtures

Observe hints for combined storage.

#### Protect against external exposure, such as

high temperatures, direct light irradiation, UV-radiation/sunlight, contact with air/oxygen

#### Consideration of other advice:

Ground/bond container and receiving equipment.

#### Ventilation requirements

Keep any substance that emits harmful vapours or gases in a place that allows these to be permanently extracted. Use local and general ventilation.

#### Specific designs for storage rooms or vessels

Recommended storage temperature: 15 – 25 °C

### 7.3 Specific end use(s)

No information available.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### National limit values

# Safety data sheet Safety data sheet

acc. to Safe Work Australia - Code of Practice

## Styrene ≥99,5 %, for synthesis, stabilized

article number: 2641

### Occupational exposure limit values (Workplace Exposure Limits)

Country	Name of agent	CAS No	Identifier	TWA [ppm]	TWA [mg/m <sup>3</sup> ]	STEL [ppm]	STEL [mg/m <sup>3</sup> ]	Ceiling-C [ppm]	Ceiling-C [mg/m <sup>3</sup> ]	Notation	Source
AU	styrene (phenylethene) (vinylbenzene)	100-42-5	WES	50	213	100	426				WES

#### Notation

Ceiling-C Ceiling value is a limit value above which exposure should not occur

STEL Short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period (unless otherwise specified)

TWA Time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average (unless otherwise specified)

### Human health values

Relevant DNELs and other threshold levels				
Endpoint	Threshold level	Protection goal, route of exposure	Used in	Exposure time
DNEL	85 mg/m <sup>3</sup>	human, inhalatory	worker (industry)	chronic - systemic effects
DNEL	289 mg/m <sup>3</sup>	human, inhalatory	worker (industry)	acute - systemic effects
DNEL	306 mg/m <sup>3</sup>	human, inhalatory	worker (industry)	acute - local effects
DNEL	406 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects

### Relevant DNELs of components of the mixture

Name of substance	CAS No	Endpoint	Threshold level	Protection goal, route of exposure	Used in	Exposure time
4-tert-butylpyrocatechol	98-29-3	DNEL	1.6 mg/m <sup>3</sup>	human, inhalatory	worker (industry)	chronic - systemic effects

### Environmental values

Relevant PNECs and other threshold levels				
Endpoint	Threshold level	Organism	Environmental compartment	Exposure time
PNEC	0.028 mg/l	aquatic organisms	freshwater	short-term (single instance)
PNEC	0.014 mg/l	aquatic organisms	marine water	short-term (single instance)
PNEC	5 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
PNEC	0.614 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
PNEC	0.307 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
PNEC	0.2 mg/kg	terrestrial organisms	soil	short-term (single instance)

# Safety data sheet Safety data sheet

acc. to Safe Work Australia - Code of Practice

## Styrene $\geq 99,5$ %, for synthesis, stabilized

article number: 2641

Relevant PNECs of components of the mixture						
Name of substance	CAS No	End-point	Threshold level	Organism	Environmental compartment	Exposure time
4-tert-butylpyrocatechol	98-29-3	PNEC	1.2 $\mu\text{g}/\text{l}$	aquatic organisms	freshwater	short-term (single instance)
4-tert-butylpyrocatechol	98-29-3	PNEC	0.12 $\mu\text{g}/\text{l}$	aquatic organisms	marine water	short-term (single instance)
4-tert-butylpyrocatechol	98-29-3	PNEC	1.2 $\mu\text{g}/\text{l}$	aquatic organisms	water	intermittent release
4-tert-butylpyrocatechol	98-29-3	PNEC	0.16 $\text{mg}/\text{l}$	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
4-tert-butylpyrocatechol	98-29-3	PNEC	6.9 $\mu\text{g}/\text{kg}$	aquatic organisms	freshwater sediment	short-term (single instance)
4-tert-butylpyrocatechol	98-29-3	PNEC	0.68 $\mu\text{g}/\text{kg}$	terrestrial organisms	soil	short-term (single instance)
4-tert-butylpyrocatechol	98-29-3	PNEC	0.69 $\mu\text{g}/\text{kg}$	aquatic organisms	marine sediment	short-term (single instance)

## 8.2 Exposure controls

### Individual protection measures (personal protective equipment)

#### Eye/face protection



Use safety goggle with side protection.

#### Skin protection



#### • hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. The times are approximate values from measurements at 22 ° C and permanent contact. Increased temperatures due to heated substances, body heat etc. and a reduction of the effective layer thickness by stretching can lead to a considerable reduction of the breakthrough time. If in doubt, contact manufacturer. At an approx. 1.5 times larger / smaller layer thickness, the respective breakthrough time is doubled / halved. The data apply only to the pure substance. When transferred to substance mixtures, they may only be considered as a guide.

#### • type of material

FKM (fluoro rubber)

#### • material thickness

>0,4 mm

#### • breakthrough times of the glove material

>480 minutes (permeation: level 6)

# Safety data sheet Safety data sheet

acc. to Safe Work Australia - Code of Practice

## Styrene $\geq 99,5$ %, for synthesis, stabilized

article number: 2641

### • Splash protection - Protective gloves

- type of material: NBR (Nitrile rubber)
- material thickness: 0,4 mm
- breakthrough times of the glove material: >30 minutes (permeation: level 2)

### • other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended.

### Respiratory protection



Respiratory protection necessary at: Aerosol or mist formation. Type: A (against organic gases and vapours with a boiling point of  $> 65$  °C, colour code: Brown).

### Environmental exposure controls

Keep away from drains, surface and ground water.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Physical state	liquid
Colour	colourless
Odour	mild sweet
Melting point/freezing point	-31 °C (ECHA)
Boiling point or initial boiling point and boiling range	145 °C at 1,013 hPa (ECHA)
Flammability	flammable liquid in accordance with GHS criteria
Lower and upper explosion limit	45 g/m <sup>3</sup> (LEL) - 350 g/m <sup>3</sup> (UEL) / 1.2 vol% (LEL) - 8.9 vol% (UEL)
Flash point	31 °C at 1,013 hPa (ECHA)
Auto-ignition temperature	490 °C at 1,013 hPa (ECHA) (auto-ignition temperature (liquids and gases))
Decomposition temperature	not relevant
pH (value)	not determined
Kinematic viscosity	0.77 mm <sup>2</sup> /s at 25 °C
<u>Solubility(ies)</u>	
Water solubility	0.32 g/l at 25 °C (ECHA)
<u>Partition coefficient</u>	
Partition coefficient n-octanol/water (log value):	2.96 (25 °C) (ECHA)
Soil organic carbon/water (log KOC)	2.55 (ECHA)



# Safety data sheet Safety data sheet

acc. to Safe Work Australia - Code of Practice

## Styrene $\geq 99,5$ %, for synthesis, stabilized

article number: 2641

---

Vapour pressure	6.67 hPa at 20 °C
Density	0.906 g/cm <sup>3</sup>
Relative vapour density	3.6 (air = 1)
Particle characteristics	not relevant (liquid)

### Other safety parameters

Oxidising properties	none
----------------------	------

## 9.2 Other information

Information with regard to physical hazard classes:	There is no additional information.
---	-------------------------------------

Other safety characteristics:

Maximum explosion pressure	6.6 bar
----------------------------	---------

Refractive index	1.546
------------------	-------

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

It's a reactive substance. Risk of ignition. Can polymerise exothermically if heated, exposed to air, sunlight or by addition of free radical initiators. May form explosive peroxides.

#### **If heated**

Risk of ignition. Vapours may form explosive mixtures with air.

### 10.2 Chemical stability

Reactivity if exposed to air => May form explosive peroxides

Reactivity if exposed to light, Reactivity if heated => Danger of polymerisation

### 10.3 Possibility of hazardous reactions

**Danger of explosion:** Peroxides, Strong acid, Peroxide formation possible with air oxygen,

**Violent reaction with:** strong oxidiser

### 10.4 Conditions to avoid

Direct light irradiation. UV-radiation/sunlight. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

### 10.5 Incompatible materials

copper

### 10.6 Hazardous decomposition products

Hazardous combustion products: see section 5. Release of: Peroxides.

# Safety data sheet Safety data sheet

acc. to Safe Work Australia - Code of Practice

## Styrene $\geq 99,5$ %, for synthesis, stabilized

article number: 2641

### SECTION 11: Toxicological information

#### 11.1 Information on toxicological effects

##### Classification acc. to GHS

##### Acute toxicity

Harmful if inhaled.

Acute toxicity					
Exposure route	Endpoint	Value	Species	Method	Source
dermal	LD50	$>2,000$ mg/kg	rat		ECHA

Acute toxicity of components of the mixture					
Name of substance	CAS No	Exposure route	Endpoint	Value	Species
4-tert-butylpyrocatechol	98-29-3	oral	LD50	$815$ mg/kg	rat
4-tert-butylpyrocatechol	98-29-3	dermal	LD50	$1,331$ mg/kg	rat

##### Skin corrosion/irritation

Causes skin irritation.

##### Serious eye damage/eye irritation

Causes serious eye irritation.

##### Respiratory or skin sensitisation

Shall not be classified as a respiratory or skin sensitiser.

##### Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

##### Carcinogenicity

Shall not be classified as carcinogenic.

##### Reproductive toxicity

Suspected of damaging the unborn child.

##### Specific target organ toxicity - single exposure

Shall not be classified as a specific target organ toxicant (single exposure).

##### Specific target organ toxicity - repeated exposure

Causes damage to organs through prolonged or repeated exposure.

##### Aspiration hazard

May be fatal if swallowed and enters airways.

##### Symptoms related to the physical, chemical and toxicological characteristics

###### • If swallowed

vomiting, aspiration hazard

###### • If in eyes

Causes serious eye irritation

# Safety data sheet Safety data sheet

acc. to Safe Work Australia - Code of Practice

## Styrene $\geq 99,5$ %, for synthesis, stabilized

article number: 2641

- **If inhaled**

vertigo, headache

- **If on skin**

causes skin irritation, pruritis, localised redness

- **Other information**

none

### 11.2 Endocrine disrupting properties

This substance is known as an "endocrine disruptor".

## SECTION 12: Ecological information

### 12.1 Toxicity

Toxic to aquatic life with long lasting effects.

#### Aquatic toxicity (acute)

Endpoint	Value	Species	Source	Exposure time
EC50	4.7 mg/l	aquatic invertebrates	ECHA	48 h
ErC50	4.9 mg/l	algae	ECHA	72 h

#### Aquatic toxicity (acute) of components of the mixture

Name of substance	CAS No	Endpoint	Value	Species	Exposure time
4-tert-butylpyrocatechol	98-29-3	LC50	0.12 mg/l	fish	96 h
4-tert-butylpyrocatechol	98-29-3	EC50	0.48 mg/l	aquatic invertebrates	48 h
4-tert-butylpyrocatechol	98-29-3	ErC50	10.17 mg/l	algae	72 h

#### Aquatic toxicity (chronic)

Endpoint	Value	Species	Source	Exposure time
EC50	1.88 mg/l	aquatic invertebrates	ECHA	21 d

#### Aquatic toxicity (chronic) of components of the mixture

Name of substance	CAS No	Endpoint	Value	Species	Exposure time
4-tert-butylpyrocatechol	98-29-3	EC50	0.94 mg/l	aquatic invertebrates	24 h

#### Biodegradation

Data are not available.

# Safety data sheet Safety data sheet

acc. to Safe Work Australia - Code of Practice

## Styrene $\geq 99,5$ %, for synthesis, stabilized

article number: 2641

### 12.2 Process of degradability

Theoretical Oxygen Demand: 3.072 mg/mg  
Theoretical Carbon Dioxide: 3.38 mg/mg

Process of degradability		
Process	Degradation rate	Time
biotic/abiotic	80 %	20 d

### Degradability of components of the mixture

Name of substance	CAS No	Process	Degradation rate	Time	Method	Source
4-tert-butylpyrocatechol	98-29-3	DOC removal	91 %	28 d		ECHA
4-tert-butylpyrocatechol	98-29-3	carbon dioxide generation	24.7 %	28 d		ECHA

### 12.3 Bioaccumulative potential

Does not significantly accumulate in organisms.

n-octanol/water (log KOW)	2.96 (25 °C) (ECHA)
BCF	74 (ECHA)

### Bioaccumulative potential of components of the mixture

Name of substance	CAS No	BCF	Log KOW	BOD5/COD
4-tert-butylpyrocatechol	98-29-3		1.98 (pH value: 5.9, 25 °C)	

### 12.4 Mobility in soil

Henry's law constant	231.6 Pa m <sup>3</sup> /mol (ECHA)
The Organic Carbon normalised adsorption coefficient	2.55 (ECHA)

### 12.5 Results of PBT and vPvB assessment

Data are not available.

### 12.6 Endocrine disrupting properties

This substance is known as an "endocrine disruptor".

### 12.7 Other adverse effects

Data are not available.

# Safety data sheet Safety data sheet

acc. to Safe Work Australia - Code of Practice

## Styrene $\geq 99,5$ %, for synthesis, stabilized

article number: 2641

### SECTION 13: Disposal considerations

#### 13.1 Waste treatment methods



This material and its container must be disposed of as hazardous waste. Dispose of contents/container in accordance with local/regional/national/international regulations.

#### Sewage disposal-relevant information

Do not empty into drains.

#### Waste treatment of containers/packagings

Only packagings which are approved (e.g. acc. to the Dangerous Goods Regulations) may be used.

#### Relevant provisions relating to waste(Basel Convention)

#### Properties of waste which render it hazardous

**H3** Flammable liquids  
**H11** Toxic (Delayed or chronic)

#### 13.3 Remarks

Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities. Please consider the relevant national or regional provisions.

### SECTION 14: Transport information

#### 14.1 UN number

<b>UN RTDG</b>	UN 2055
IMDG-Code	UN 2055
ICAO-TI	UN 2055

#### 14.2 UN proper shipping name

<b>UN RTDG</b>	STYRENE MONOMER, STABILIZED
IMDG-Code	STYRENE MONOMER, STABILIZED
ICAO-TI	Styrene monomer, stabilized

#### 14.3 Transport hazard class(es)

<b>UN RTDG</b>	3
IMDG-Code	3
ICAO-TI	3

#### 14.4 Packing group

<b>UN RTDG</b>	III
IMDG-Code	III
ICAO-TI	III

#### 14.5 Environmental hazards

non-environmentally hazardous acc. to the dangerous goods regulations

# Safety data sheet Safety data sheet

acc. to Safe Work Australia - Code of Practice

## Styrene ≥99,5 %, for synthesis, stabilized

article number: 2641

---

### 14.6 Special precautions for user

There is no additional information.

### 14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code

The cargo is not intended to be carried in bulk.

### 14.8 Information for each of the UN Model Regulations

#### Transport information National regulations Additional information (UN RTDG)

UN number 2055

Class 3

Packing group III

Danger label(s) 3



Special provisions (SP) 386  
UN RTDG

Excepted quantities (EQ) E1  
UN RTDG

Limited quantities (LQ) 5 L  
UN RTDG

#### International Maritime Dangerous Goods Code (IMDG) - Additional information

Proper shipping name STYRENE MONOMER, STABILIZED

Particulars in the shipper's declaration UN2055, STYRENE MONOMER, STABILIZED, 3, III,  
31°C c.c.

Marine pollutant -

Danger label(s) 3



Special provisions (SP) 386

Excepted quantities (EQ) E1

Limited quantities (LQ) 5 L

EmS F-E, S-D

Stowage category C

#### International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information

Proper shipping name Styrene monomer, stabilized

Particulars in the shipper's declaration UN2055, Styrene monomer, stabilized, 3, III

Danger label(s) 3



Special provisions (SP) A209

# Safety data sheet Safety data sheet

acc. to Safe Work Australia - Code of Practice

## Styrene $\geq 99,5$ %, for synthesis, stabilized

article number: 2641

Excepted quantities (EQ)	E1
Limited quantities (LQ)	10 L

### SECTION 15: Regulatory information

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

There is no additional information.

##### National regulations(Australia)

##### Australian Inventory of Chemical Substances(AICS)

Substance is listed.

##### Other information

Directive 94/33/EC on the protection of young people at work. Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

##### National inventories

Country	Inventory	Status
AU	AICS	substance is listed
CA	DSL	substance is listed
CN	IECSC	substance is listed
EU	ECSI	substance is listed
EU	REACH Reg.	substance is listed
JP	CSCL-ENCS	substance is listed
KR	KECI	substance is listed
MX	INSQ	substance is listed
NZ	NZIoC	substance is listed
PH	PICCS	substance is listed
TR	CICR	substance is listed
TW	TCSI	substance is listed
US	TSCA	substance is listed

##### Legend

AICS	Australian Inventory of Chemical Substances
CICR	Chemical Inventory and Control Regulation
CSCL-ENCS	List of Existing and New Chemical Substances (CSCL-ENCS)
DSL	Domestic Substances List (DSL)
ECSI	EC Substance Inventory (EINECS, ELINCS, NLP)
IECSC	Inventory of Existing Chemical Substances Produced or Imported in China
INSQ	National Inventory of Chemical Substances
KECI	Korea Existing Chemicals Inventory
NZIoC	New Zealand Inventory of Chemicals
PICCS	Philippine Inventory of Chemicals and Chemical Substances (PICCS)
REACH Reg.	REACH registered substances
TCSI	Taiwan Chemical Substance Inventory
TSCA	Toxic Substance Control Act

#### 15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this substance.

# Safety data sheet Safety data sheet

acc. to Safe Work Australia - Code of Practice

## Styrene $\geq 99,5$ %, for synthesis, stabilized

article number: 2641

### SECTION 16: Other information

#### Indication of changes (revised safety data sheet)

Alignment to regulation: Globally Harmonized System of Classification and Labelling of Chemicals ("Purple book").

Restructuring: section 9, section 14

Section	Former entry (text/value)	Actual entry (text/value)	Safety-relevant
2.1		Classification acc. to GHS: change in the listing (table)	yes
2.1	Remarks: For full text of Hazard- and EU Hazard-statements: see SECTION 16.		yes
2.1		The most important adverse physicochemical, human health and environmental effects: Delayed or immediate effects can be expected after short or long-term exposure. The product is combustible and can be ignited by potential ignition sources.	yes
2.2	Signal word: Warning	Signal word: Danger	yes
2.2		Pictograms: change in the listing (table)	yes
2.2		Hazard statements: change in the listing (table)	yes
2.2		Precautionary statements - prevention: change in the listing (table)	yes
2.2		Precautionary statements - response: change in the listing (table)	yes
2.2	Labelling of packages where the contents do not exceed 125 ml: Signal word: Warning		yes
2.2		Labelling of packages where the contents do not exceed 125 ml: change in the listing (table)	yes
2.2		Labelling of packages where the contents do not exceed 125 ml: change in the listing (table)	yes
2.2		Labelling of packages where the contents do not exceed 125 ml: change in the listing (table)	yes
2.3	Other hazards: There is no additional information.	Other hazards	yes
2.3		Results of PBT and vPvB assessment: According to the results of its assessment, this substance is not a PBT or a vPvB.	yes
2.3		Endocrine disrupting properties: The substance has an endocrine disrupting potential.	yes



# Safety data sheet Safety data sheet

acc. to Safe Work Australia - Code of Practice

## Styrene $\geq 99,5$ %, for synthesis, stabilized

article number: 2641

### Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
BCF	Bioconcentration factor
BOD	Biochemical Oxygen Demand
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
Ceiling-C	Ceiling value
COD	Chemical oxygen demand
DGR	Dangerous Goods Regulations (see IATA/DGR)
DNEL	Derived No-Effect Level
EC50	Effective Concentration 50 %. The EC50 corresponds to the concentration of a tested substance causing 50 % changes in response (e.g. on growth) during a specified time interval
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
EmS	Emergency Schedule
ErC50	$\equiv$ EC50: in this method, that concentration of test substance which results in a 50 % reduction in either growth (EbC50) or growth rate (ErC50) relative to the control
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
IATA	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
ICAO	International Civil Aviation Organization
ICAO-TI	Technical instructions for the safe transport of dangerous goods by air
IMDG	International Maritime Dangerous Goods Code
IMDG-Code	International Maritime Dangerous Goods Code
LC50	Lethal Concentration 50%: the LC50 corresponds to the concentration of a tested substance causing 50 % lethality during a specified time interval
LD50	Lethal Dose 50 %: the LD50 corresponds to the dose of a tested substance causing 50 % lethality during a specified time interval
LEL	Lower explosion limit (LEL)
log KOW	n-Octanol/water
MARPOL	International Convention for the Prevention of Pollution from Ships (abbr. of "Marine Pollutant")
NLP	No-Longer Polymer
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration
ppm	Parts per million
STEL	Short-term exposure limit
TWA	Time-weighted average
UEL	Upper explosion limit (UEL)
UN RTDG	UN Recommendations on the Transport of Dangerous Good

# Safety data sheet Safety data sheet

acc. to Safe Work Australia - Code of Practice

## Styrene $\geq 99,5$ %, for synthesis, stabilized

article number: 2641

Abbr.	Descriptions of used abbreviations
vPvB	Very Persistent and very Bioaccumulative
WES	Safe Work Australia: Workplace exposure standards for airborne contaminants

### Key literature references and sources for data

Safe Work Australia's Code of Practice for Labelling of Workplace Hazardous Chemicals (under WHS Regulations).

UN Recommendations on the Transport of Dangerous Good. International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

### List of relevant phrases (code and full text as stated in section 2 and 3)

Code	Text
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.
H361d	Suspected of damaging the unborn child.
H372	Causes damage to organs through prolonged or repeated exposure.

### Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.