

Creation Date 15-Dec-2011

Revision Date 14-Feb-2024

Revision Number 4

## SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### 1.1. Product identifier

|                      |                                             |
|----------------------|---------------------------------------------|
| Product Description: | <b>4-Chlorostyrene</b>                      |
| Cat No. :            | <b>B20512</b>                               |
| Synonyms             | 1-Chloro-4-ethenylbenzene.; p-Chlorostyrene |
| CAS No               | 1073-67-2                                   |
| EC No                | 214-028-8                                   |
| Molecular Formula    | C <sub>8</sub> H <sub>7</sub> Cl            |

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

|                      |                          |
|----------------------|--------------------------|
| Recommended Use      | Laboratory chemicals.    |
| Uses advised against | No Information available |

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

|         |                                                                                                                                                                                                              |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Company | Avocado Research Chemicals Ltd.<br>(Part of Thermo Fisher Scientific)<br>Shore Road, Heysham<br>Lancashire, LA3 2XY,<br>United Kingdom<br>Office Tel: +44 (0) 1524 850506<br>Office Fax: +44 (0) 1524 850608 |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                |                                |
|----------------|--------------------------------|
| E-mail address | begel.sdsdesk@thermofisher.com |
|----------------|--------------------------------|

### 1.4. Emergency telephone number

For information **US** call: 001-800-227-6701 / **Europe** call: +32 14 57 52 11  
Emergency Number **US**:001-201-796-7100 / **Europe**: +32 14 57 52 99  
**CHEMTREC** Tel. No. **US**:001-800-424-9300 / **Europe**:001-703-527-3887

## SECTION 2: HAZARDS IDENTIFICATION

### 2.1. Classification of the substance or mixture

#### CLP Classification - According to GB-CLP Regulations UK SI 2019/720 and UK SI 2020/1567

##### Physical hazards

Based on available data, the classification criteria are not met

##### Health hazards

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|                                                    |                                        |
|----------------------------------------------------|----------------------------------------|
| Acute oral toxicity<br>Skin Corrosion/Irritation   | Category 4 (H302)<br>Category 2 (H315) |
| <b>Environmental hazards</b>                       |                                        |
| Acute aquatic toxicity<br>Chronic aquatic toxicity | Category 1 (H400)<br>Category 1 (H410) |

Full text of Hazard Statements: see section 16

## 2.2. Label elements



Signal Word

Warning

## Hazard Statements

H302 - Harmful if swallowed  
H315 - Causes skin irritation  
H410 - Very toxic to aquatic life with long lasting effects  
Combustible liquid  
EUH208 - Contains 4-tert-Butyl catechol. May produce an allergic reaction

## Precautionary Statements

P301 + P330 + P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting  
P312 - Call a POISON CENTER or doctor if you feel unwell  
P280 - Wear protective gloves/protective clothing  
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water

## 2.3. Other hazards

Contains a known or suspected endocrine disruptor  
Contains a substance on the National Authorities Endocrine Disruptor Lists

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1. Substances

| Component                    | CAS No    | EC No             | Weight % | CLP Classification - According to GB-CLP Regulations UK SI 2019/720 and UK SI 2020/1567                                                                              |
|------------------------------|-----------|-------------------|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Benzene, 1-chloro-4-ethenyl- | 1073-67-2 | EEC No. 214-028-8 | >95      | Acute Tox. 3 (H302)<br>Skin Irrit. 2 (H315)<br>Aquatic Acute 1 (H400)<br>Aquatic Chronic 1 (H410)                                                                    |
| 4-tert-Butyl catechol        | 98-29-3   | 202-653-9         | 0.1      | Acute Tox. 4 (H302)<br>Acute Tox. 4 (H312)<br>Skin Corr. 1B (H314)<br>Skin Sens. 1 (H317)<br>Eye Dam. 1 (H318)<br>Aquatic Acute 1 (H400)<br>Aquatic Chronic 2 (H411) |

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| Component             | Specific concentration limits (SCL's) | M-Factor | Component notes |
|-----------------------|---------------------------------------|----------|-----------------|
| 4-tert-Butyl catechol | -                                     | 1        | -               |

Full text of Hazard Statements: see section 16

## SECTION 4: FIRST AID MEASURES

### 4.1. Description of first aid measures

|                                           |                                                                                                                                                  |
|-------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>General Advice</b>                     | If symptoms persist, call a physician.                                                                                                           |
| <b>Eye Contact</b>                        | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.                                  |
| <b>Skin Contact</b>                       | Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician.                                |
| <b>Ingestion</b>                          | Clean mouth with water and drink afterwards plenty of water.                                                                                     |
| <b>Inhalation</b>                         | Remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms occur.                                     |
| <b>Self-Protection of the First Aider</b> | Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. |

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

. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting

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

|                           |                        |
|---------------------------|------------------------|
| <b>Notes to Physician</b> | Treat symptomatically. |
|---------------------------|------------------------|

## SECTION 5: FIREFIGHTING MEASURES

### 5.1. Extinguishing media

#### Suitable Extinguishing Media

Water spray. Carbon dioxide (CO<sub>2</sub>). Dry chemical. Water mist may be used to cool closed containers. Chemical foam. Water mist may be used to cool closed containers.

#### Extinguishing media which must not be used for safety reasons

No information available.

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

Combustible material. Containers may explode when heated. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back. Do not allow run-off from fire-fighting to enter drains or water courses.

#### Hazardous Combustion Products

Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>), Hydrogen chloride gas.

### 5.3. Advice for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

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

Ensure adequate ventilation. Use personal protective equipment as required. Remove all sources of ignition. Take precautionary measures against static discharges.

## **6.2. Environmental precautions**

Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system. Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained.

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

Keep in suitable, closed containers for disposal. Soak up with inert absorbent material. Remove all sources of ignition.

## **6.4. Reference to other sections**

Refer to protective measures listed in Sections 8 and 13.

## **SECTION 7: HANDLING AND STORAGE**

### **7.1. Precautions for safe handling**

Wear personal protective equipment/face protection. Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing. Avoid ingestion and inhalation. Keep away from open flames, hot surfaces and sources of ignition.

#### **Hygiene Measures**

Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and after work.

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

Keep away from heat, sparks and flame. Protect from direct sunlight. Keep containers tightly closed in a dry, cool and well-ventilated place. To maintain product quality: Keep refrigerated.

**Technical Rules for Hazardous Substances (TRGS) 510**      Class 10  
**Storage Class (LGK) (Germany)**

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

Use in laboratories

## **SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

### **8.1. Control parameters**

#### **Exposure limits**

List source(s):

#### **Biological limit values**

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies

**Derived No Effect Level (DNEL) / Derived Minimum Effect Level (DMEL)**

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See table for values

| Component                                | Acute effects local<br>(Inhalation) | Acute effects<br>systemic (Inhalation) | Chronic effects local<br>(Inhalation) | Chronic effects<br>systemic (Inhalation) |
|------------------------------------------|-------------------------------------|----------------------------------------|---------------------------------------|------------------------------------------|
| 4-tert-Butyl catechol<br>98-29-3 ( 0.1 ) |                                     |                                        |                                       | DNEL = 1.6mg/m <sup>3</sup>              |

## Predicted No Effect Concentration (PNEC)

See values below.

| Component                                | Fresh water    | Fresh water<br>sediment        | Water Intermittent | Microorganisms in<br>sewage treatment | Soil (Agriculture)          |
|------------------------------------------|----------------|--------------------------------|--------------------|---------------------------------------|-----------------------------|
| 4-tert-Butyl catechol<br>98-29-3 ( 0.1 ) | PNEC = 1.2µg/L | PNEC = 6.9µg/kg<br>sediment dw | PNEC = 1.2µg/L     | PNEC = 0.16mg/L                       | PNEC = 0.68µg/kg<br>soil dw |

| Component                                | Marine water    | Marine water<br>sediment        | Marine water<br>intermittent | Food chain | Air |
|------------------------------------------|-----------------|---------------------------------|------------------------------|------------|-----|
| 4-tert-Butyl catechol<br>98-29-3 ( 0.1 ) | PNEC = 0.12µg/L | PNEC = 0.69µg/kg<br>sediment dw |                              |            |     |

## 8.2. Exposure controls

### Engineering Measures

Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location. Use explosion-proof electrical/ventilating/lighting equipment.

Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source

### Personal protective equipment

#### Eye Protection

Goggles (European standard - EN 166)

#### Hand Protection

Protective gloves

| Glove material                                      | Breakthrough time                    | Glove thickness | EU standard | Glove comments<br>(minimum requirement) |
|-----------------------------------------------------|--------------------------------------|-----------------|-------------|-----------------------------------------|
| Nitrile rubber<br>Neoprene<br>Natural rubber<br>PVC | See manufacturers<br>recommendations | -               | EN 374      |                                         |

#### Skin and body protection

Long sleeved clothing.

Inspect gloves before use.

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information)

Ensure gloves are suitable for the task: Chemical compatability, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion.

Remove gloves with care avoiding skin contamination.

#### Respiratory Protection

No protective equipment is needed under normal use conditions.

#### Large scale/emergency use

Use a NIOSH/MSHA or European Standard EN 136 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced

#### Small scale/Laboratory use

Maintain adequate ventilation

#### Environmental exposure controls

Prevent product from entering drains. Do not allow material to contaminate ground water system. Local authorities should be advised if significant spillages cannot be contained.

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## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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

|                                         |                          |                                   |
|-----------------------------------------|--------------------------|-----------------------------------|
| Physical State                          | Liquid                   |                                   |
| Appearance                              | Clear                    |                                   |
| Odor                                    | Strong                   |                                   |
| Odor Threshold                          | No data available        |                                   |
| Melting Point/Range                     | -16 °C / 3.2 °F          |                                   |
| Softening Point                         | No data available        |                                   |
| Boiling Point/Range                     | 192 °C / 377.6 °F        | @ 760 mmHg                        |
| Flammability (liquid)                   | Combustible liquid       | On basis of test data             |
| Flammability (solid,gas)                | Not applicable           | Liquid                            |
| Explosion Limits                        | No data available        |                                   |
| Flash Point                             | 64 °C / 147.2 °F         | Method - No information available |
| Autoignition Temperature                | No data available        |                                   |
| Decomposition Temperature               | No data available        |                                   |
| pH                                      | No information available |                                   |
| Viscosity                               | No data available        |                                   |
| Water Solubility                        | Insoluble                |                                   |
| Solubility in other solvents            | No information available |                                   |
| Partition Coefficient (n-octanol/water) |                          |                                   |
| Component                               | log Pow                  |                                   |
| Benzene, 1-chloro-4-ethenyl-            | 3.54                     |                                   |
| 4-tert-Butyl catechol                   | 1.98                     |                                   |
| Vapor Pressure                          | 0.816 mmHg @ 25 °C       |                                   |
| Density / Specific Gravity              | 1.16                     |                                   |
| Bulk Density                            | Not applicable           | Liquid                            |
| Vapor Density                           | 4.8 (Air = 1.0)          | (Air = 1.0)                       |
| Particle characteristics                | Not applicable (liquid)  |                                   |

### 9.2. Other information

|                      |                                        |
|----------------------|----------------------------------------|
| Molecular Formula    | C8 H7 Cl                               |
| Molecular Weight     | 138.6                                  |
| Explosive Properties | explosive air/vapour mixtures possible |

## SECTION 10: STABILITY AND REACTIVITY

### 10.1. Reactivity

None known, based on information available

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

|                          |                                     |
|--------------------------|-------------------------------------|
| Hazardous Polymerization | Hazardous polymerization may occur. |
| Hazardous Reactions      | None under normal processing.       |

### 10.4. Conditions to avoid

Keep away from open flames, hot surfaces and sources of ignition. Excess heat. Exposure to light. Incompatible products.

### 10.5. Incompatible materials

Acids. Bases. Halogens. Reducing Agent.

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## 10.6. Hazardous decomposition products

Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>). Hydrogen chloride gas.

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

#### Product Information

##### (a) acute toxicity;

Oral

Category 4

Dermal

Based on available data, the classification criteria are not met

Inhalation

Based on available data, the classification criteria are not met

| Component                    | LD50 Oral          | LD50 Dermal        | LC50 Inhalation |
|------------------------------|--------------------|--------------------|-----------------|
| Benzene, 1-chloro-4-ethenyl- | 5200 mg/kg ( Rat ) | -                  | -               |
| 4-tert-Butyl catechol        | 815 mg/kg ( Rat )  | 1331 mg/kg ( Rat ) | -               |

##### (b) skin corrosion/irritation;

Category 2

##### (c) serious eye damage/irritation;

No data available

##### (d) respiratory or skin sensitization;

Respiratory

No data available

Skin

No data available

No information available

##### (e) germ cell mutagenicity;

No data available

##### (f) carcinogenicity;

No data available

There are no known carcinogenic chemicals in this product

##### (g) reproductive toxicity;

No data available

##### (h) STOT-single exposure;

No data available

##### (i) STOT-repeated exposure;

No data available

Target Organs

No information available.

##### (j) aspiration hazard;

No data available

Symptoms / effects, both acute and delayed

Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

### 11.2. Information on other hazards

#### Endocrine Disrupting Properties

Assess endocrine disrupting properties for human health

Contains a substance on the National Authorities Endocrine Disruptor Lists

## SECTION 12: ECOLOGICAL INFORMATION

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## 12.1. Toxicity

### Ecotoxicity effects

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. The product contains following substances which are hazardous for the environment.

| Component             | Freshwater Fish      | Water Flea         | Freshwater Algae |
|-----------------------|----------------------|--------------------|------------------|
| 4-tert-Butyl catechol | LC50 = 0.12 mg/L 96h | EC50=0.48 mg/L 48h |                  |

| Component                    | Microtox                                                                     | M-Factor |
|------------------------------|------------------------------------------------------------------------------|----------|
| Benzene, 1-chloro-4-ethenyl- | EC50 = 1.13 mg/L 5 min<br>EC50 = 1.39 mg/L 15 min<br>EC50 = 1.67 mg/L 30 min |          |
| 4-tert-Butyl catechol        |                                                                              | 1        |

## 12.2. Persistence and degradability

### Persistence

Not readily biodegradable

### Degradation in sewage treatment plant

Insoluble in water, May persist, based on information available.

Contains substances known to be hazardous to the environment or not degradable in waste water treatment plants.

## 12.3. Bioaccumulative potential

May have some potential to bioaccumulate

| Component                    | log Pow | Bioconcentration factor (BCF) |
|------------------------------|---------|-------------------------------|
| Benzene, 1-chloro-4-ethenyl- | 3.54    | No data available             |
| 4-tert-Butyl catechol        | 1.98    | No data available             |

## 12.4. Mobility in soil

Spillage unlikely to penetrate soil The product is insoluble and sinks in water The product evaporates slowly Is not likely mobile in the environment due its low water solubility. Spillage unlikely to penetrate soil

## 12.5. Results of PBT and vPvB assessment

No data available for assessment.

## 12.6. Endocrine disrupting properties

### Endocrine Disruptor Information Assess endocrine disrupting properties for the environment

This product does not contain any known or suspected endocrine disruptors  
Contains a substance on the National Authorities Endocrine Disruptor Lists.

## 12.7. Other adverse effects

### Persistent Organic Pollutant Ozone Depletion Potential

This product does not contain any known or suspected substance  
This product does not contain any known or suspected substance

## SECTION 13: DISPOSAL CONSIDERATIONS

### 13.1. Waste treatment methods

#### Waste from Residues/Unused Products

Waste is classified as hazardous. Dispose of in accordance with the European Directives on waste and hazardous waste. Dispose of in accordance with local regulations. Should not be released into the environment.

#### Contaminated Packaging

Dispose of this container to hazardous or special waste collection point. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep product and empty container away from heat and sources of ignition.

#### European Waste Catalogue (EWC)

According to the European Waste Catalog, Waste Codes are not product specific, but application specific.



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## Other Information

Do not flush to sewer. Waste codes should be assigned by the user based on the application for which the product was used. Do not empty into drains. Do not let this chemical enter the environment.

## SECTION 14: TRANSPORT INFORMATION

### IMDG/IMO

|                                         |                                                      |
|-----------------------------------------|------------------------------------------------------|
| <b>14.1. UN number</b>                  | UN3082                                               |
| <b>14.2. UN proper shipping name</b>    | Environmentally hazardous substances, liquid, n.o.s. |
| <b>Technical Shipping Name</b>          | 4-Chlorostyrene                                      |
| <b>14.3. Transport hazard class(es)</b> | 9                                                    |
| <b>14.4. Packing group</b>              | III                                                  |

### ADR

|                                         |                                                      |
|-----------------------------------------|------------------------------------------------------|
| <b>14.1. UN number</b>                  | UN3082                                               |
| <b>14.2. UN proper shipping name</b>    | Environmentally hazardous substances, liquid, n.o.s. |
| <b>Technical Shipping Name</b>          | 4-Chlorostyrene                                      |
| <b>14.3. Transport hazard class(es)</b> | 9                                                    |
| <b>14.4. Packing group</b>              | III                                                  |

### IATA

|                                         |                                                      |
|-----------------------------------------|------------------------------------------------------|
| <b>14.1. UN number</b>                  | UN3082                                               |
| <b>14.2. UN proper shipping name</b>    | Environmentally hazardous substances, liquid, n.o.s. |
| <b>Technical Shipping Name</b>          | 4-Chlorostyrene                                      |
| <b>14.3. Transport hazard class(es)</b> | 9                                                    |
| <b>14.4. Packing group</b>              | III                                                  |

|                                    |                                                                                                          |
|------------------------------------|----------------------------------------------------------------------------------------------------------|
| <b>14.5. Environmental hazards</b> | Dangerous for the environment<br>Product is a marine pollutant according to the criteria set by IMDG/IMO |
|------------------------------------|----------------------------------------------------------------------------------------------------------|

|                                           |                                  |
|-------------------------------------------|----------------------------------|
| <b>14.6. Special precautions for user</b> | No special precautions required. |
|-------------------------------------------|----------------------------------|

|                                                                      |                                |
|----------------------------------------------------------------------|--------------------------------|
| <b>14.7. Maritime transport in bulk according to IMO instruments</b> | Not applicable, packaged goods |
|----------------------------------------------------------------------|--------------------------------|

## SECTION 15: REGULATORY INFORMATION

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

#### International Inventories

Europe (EINECS/ELINCS/NLP), China (IECSC), Taiwan (TCSI), Korea (KECL), Japan (ENCS), Japan (ISHL), Canada (DSL/NDSL), Australia (AICS), New Zealand (NZIoC), Philippines (PICCS). US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)

| Component                    | CAS No    | EINECS    | ELINCS | NLP | IECSC | TCSI | KECL     | ENCS | ISHL |
|------------------------------|-----------|-----------|--------|-----|-------|------|----------|------|------|
| Benzene, 1-chloro-4-ethenyl- | 1073-67-2 | 214-028-8 | -      | -   | -     | X    | KE-05656 | X    | X    |
| 4-tert-Butyl catechol        | 98-29-3   | 202-653-9 | -      | -   | X     | X    | KE-11368 | X    | X    |

| Component                    | CAS No    | TSCA | TSCA Inventory notification - Active-Inactive | DSL | NDSL | AICS | NZIoC | PICCS |
|------------------------------|-----------|------|-----------------------------------------------|-----|------|------|-------|-------|
| Benzene, 1-chloro-4-ethenyl- | 1073-67-2 | X    | ACTIVE                                        | -   | X    | X    | X     | X     |
| 4-tert-Butyl catechol        | 98-29-3   | X    | ACTIVE                                        | X   | -    | X    | X     | X     |

Legend: X - Listed '-' - Not Listed

KECL - NIER number or KE number (<http://ncis.nier.go.kr/en/main.do>)

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## Authorisation/Restrictions according to EU REACH

| Component                                         | CAS No               | REACH (1907/2006) - Annex XIV - Substances Subject to Authorization | REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances | REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC) |
|---------------------------------------------------|----------------------|---------------------------------------------------------------------|-------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
| Benzene, 1-chloro-4-ethenyl-4-tert-Butyl catechol | 1073-67-2<br>98-29-3 | -<br>-                                                              | -<br>Use restricted. See item 75.<br>(see link for restriction details)       | -<br>-                                                                                                |

### REACH links

<https://echa.europa.eu/substances-restricted-under-reach>

## Seveso III Directive (2012/18/EC)

| Component                                         | CAS No               | Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification | Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements |
|---------------------------------------------------|----------------------|-------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
| Benzene, 1-chloro-4-ethenyl-4-tert-Butyl catechol | 1073-67-2<br>98-29-3 | Not applicable<br>Not applicable                                                          | Not applicable<br>Not applicable                                                         |

## Regulation (EC) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of dangerous chemicals

Not applicable

## Contains component(s) that meet a 'definition' of per & poly fluoroalkyl substance (PFAS)?

Not applicable

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work .

## National Regulations

**UK** - Take note of Control of Substances Hazardous to Health Regulations (COSHH) 2002 and 2005 Amendment

### WGK Classification

See table for values

| Component             | Germany - Water Classification (AwSV) | Germany - TA-Luft Class |
|-----------------------|---------------------------------------|-------------------------|
| 4-tert-Butyl catechol | WGK3                                  |                         |

| Component                                | Switzerland - Ordinance on the Reduction of Risk from handling of hazardous substances preparation (SR 814.81) | Switzerland - Ordinance on Incentive Taxes on Volatile Organic Compounds (OVOC) | Switzerland - Ordinance of the Rotterdam Convention on the Prior Informed Consent Procedure |
|------------------------------------------|----------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|
| 4-tert-Butyl catechol<br>98-29-3 ( 0.1 ) | Prohibited and Restricted Substances                                                                           |                                                                                 |                                                                                             |

## 15.2. Chemical safety assessment

A Chemical Safety Assessment/Report (CSA/CSR) has not been conducted

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## SECTION 16: OTHER INFORMATION

### Full text of H-Statements referred to under sections 2 and 3

H302 - Harmful if swallowed  
H315 - Causes skin irritation  
H400 - Very toxic to aquatic life  
H410 - Very toxic to aquatic life with long lasting effects  
H312 - Harmful in contact with skin  
H314 - Causes severe skin burns and eye damage  
H317 - May cause an allergic skin reaction  
H318 - Causes serious eye damage  
H411 - Toxic to aquatic life with long lasting effects

### Legend

**CAS** - Chemical Abstracts Service

**EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**IECSC** - Chinese Inventory of Existing Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDL** - Canadian Domestic Substances List/Non-Domestic Substances List

**ENCS** - Japanese Existing and New Chemical Substances

**AICS** - Australian Inventory of Chemical Substances

**NZIoC** - New Zealand Inventory of Chemicals

**WEL** - Workplace Exposure Limit

**ACGIH** - American Conference of Governmental Industrial Hygienists

**DNEL** - Derived No Effect Level

**RPE** - Respiratory Protective Equipment

**LC50** - Lethal Concentration 50%

**NOEC** - No Observed Effect Concentration

**PBT** - Persistent, Bioaccumulative, Toxic

**TWA** - Time Weighted Average

**IARC** - International Agency for Research on Cancer

Predicted No Effect Concentration (PNEC)

**LD50** - Lethal Dose 50%

**EC50** - Effective Concentration 50%

**POW** - Partition coefficient Octanol:Water

**vPvB** - very Persistent, very Bioaccumulative

**ADR** - European Agreement Concerning the International Carriage of Dangerous Goods by Road

**IMO/IMDG** - International Maritime Organization/International Maritime Dangerous Goods Code

**OECD** - Organisation for Economic Co-operation and Development

**BCF** - Bioconcentration factor

### **Key literature references and sources for data**

<https://echa.europa.eu/information-on-chemicals>

Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS

**ICAO/IATA** - International Civil Aviation Organization/International Air Transport Association

**MARPOL** - International Convention for the Prevention of Pollution from Ships

**ATE** - Acute Toxicity Estimate

**VOC** - (Volatile Organic Compound)

### **Training Advice**

Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and hygiene.

Use of personal protective equipment, covering appropriate selection, compatibility, breakthrough thresholds, care, maintenance, fit and standards.

First aid for chemical exposure, including the use of eye wash and safety showers.

Chemical incident response training.

### **Prepared By**

Health, Safety and Environmental Department

### **Creation Date**

15-Dec-2011

### **Revision Date**

14-Feb-2024

### **Revision Summary**

New emergency telephone response service provider.

**This safety data sheet complies with Regulation UK SI 2019/758 and UK SI 2020/1577 as amended.**

### **Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other

# **SAFETY DATA SHEET**

4-Chlorostyrene

Revision Date 14-Feb-2024

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materials or in any process, unless specified in the text

**End of Safety Data Sheet**