

# Material Safety Data Sheet

## 4-tert-Butylcatechol, 99%

ACC# 05579

### Section 1 - Chemical Product and Company Identification

**MSDS Name:** 4-tert-Butylcatechol, 99%

**Catalog Numbers:** AC154350000, AC154350050, AC154351000, AC154355000

**Synonyms:** 4-tert-Butylpyrocatechol; TBC; 4-(1,1-Dimethylethyl)-1,2-benzenediol; 4-t-Butyl-1,2-dihydroxybenzene.

**Company Identification:**

Acros Organics N.V.

One Reagent Lane

Fair Lawn, NJ 07410

**For information in North America, call:** 800-ACROS-01

**For emergencies in the US, call CHEMTREC:** 800-424-9300

### Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
98-29-3	4-tert-Butylcatechol	99	202-653-9

### Section 3 - Hazards Identification

#### EMERGENCY OVERVIEW

Appearance: white to cream flakes.

**Danger!** Causes eye and skin burns. Causes digestive and respiratory tract burns. Harmful if absorbed through the skin. May cause allergic skin reaction. Hygroscopic (absorbs moisture from the air).

**Target Organs:** Respiratory system, eyes, skin, mucous membranes.

#### Potential Health Effects

**Eye:** Causes severe eye irritation and possible burns.

**Skin:** Harmful if absorbed through the skin. Causes skin burns. May cause skin sensitization, an allergic reaction, which becomes evident upon re-exposure to this material. May cause depigmentation of the skin. Those who have become sensitized to 4-tert-butylcatechol must avoid exposure, including the handling of styrene and other monomers which are inhibited with 4-t-butylcatechol at a few ppm level. Molten material, concentrated solutions, or the hydrate all penetrate the skin readily; dry solid is slower.

**Ingestion:** Causes gastrointestinal tract burns.

**Inhalation:** Causes chemical burns to the respiratory tract. May cause burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, and vomiting.

**Chronic:** Prolonged or repeated contact may cause possible eczema. Chronic exposure may cause effects similar to those of acute exposure.

### Section 4 - First Aid Measures

**Eyes:** In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical aid immediately.

**Skin:** In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid immediately. Wash clothing before reuse.

**Ingestion:** If swallowed, do NOT induce vomiting. Get medical aid immediately. If victim is fully conscious, give a cupful of water. Never give anything by mouth to an unconscious person.

**Inhalation:** If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

**Notes to Physician:** Treat symptomatically and supportively.

### Section 5 - Fire Fighting Measures

**General Information:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Dusts at sufficient concentrations can form explosive mixtures with air. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Use water spray to keep fire-exposed containers cool.

**Extinguishing Media:** Use water spray, dry chemical, or carbon dioxide.

**Flash Point:** 129 deg C ( 264.20 deg F)

**Autoignition Temperature:** Not available.

**Explosion Limits, Lower:**Not available.

**Upper:** Not available.

**NFPA Rating:** (estimated) Health: 3; Flammability: 1; Instability: 0

### Section 6 - Accidental Release Measures

**General Information:** Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:** Vacuum or sweep up material and place into a suitable disposal container. Clean up spills immediately, observing

precautions in the Protective Equipment section. Avoid generating dusty conditions. Provide ventilation. Control runoff and isolate discharged material for proper disposal.

## Section 7 - Handling and Storage

**Handling:** Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Minimize dust generation and accumulation. Do not get in eyes, on skin, or on clothing. Keep container tightly closed. Discard contaminated shoes. Do not breathe dust. Use only with adequate ventilation.

**Storage:** Store in a cool, dry place. Do not store in direct sunlight. Store in a tightly closed container. Store protected from moisture. Keep away from oxidizing agents.

## Section 8 - Exposure Controls, Personal Protection

**Engineering Controls:** Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

### Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
4-tert-Butylcatechol	none listed	none listed	none listed

**OSHA Vacated PELs:** 4-tert-Butylcatechol: No OSHA Vacated PELs are listed for this chemical.

### Personal Protective Equipment

**Eyes:** Wear chemical splash goggles and face shield.

**Skin:** Wear appropriate protective gloves to prevent skin exposure.

**Clothing:** Wear appropriate protective clothing to prevent skin exposure.

**Respirators:** A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

## Section 9 - Physical and Chemical Properties

**Physical State:** Flakes

**Appearance:** white to cream

**Odor:** Phenol-like odor.

**pH:** Not available.

**Vapor Pressure:** 0.0028 mm Hg @ 25 deg C

**Vapor Density:** Not available.

**Evaporation Rate:** Not available.

**Viscosity:** 90 cSt 25 deg C

**Boiling Point:** 285 deg C @ 760 mm Hg

**Freezing/Melting Point:** 53-56 deg C

**Decomposition Temperature:** Not available.

**Solubility:** Slightly soluble @ 80°C

**Specific Gravity/Density:** 1.049 g/cm<sup>3</sup>

**Molecular Formula:** C<sub>10</sub>H<sub>14</sub>O<sub>2</sub>

**Molecular Weight:** 166.22

## Section 10 - Stability and Reactivity

**Chemical Stability:** Stable under normal temperatures and pressures. Oxidizes when exposed to air.

**Conditions to Avoid:** High temperatures, light, dust generation, exposure to moist air or water, prolonged exposure to air.

**Incompatibilities with Other Materials:** Strong oxidizing agents, bases, iron, steel.

**Hazardous Decomposition Products:** Carbon monoxide, carbon dioxide, phenol.

**Hazardous Polymerization:** Will not occur.

## Section 11 - Toxicological Information

### RTECS#:

**CAS#** 98-29-3: UX1400000

### LD50/LC50:

**CAS#** 98-29-3:

Draize test, rabbit, skin: 750 ug/24H Severe;

Oral, rat: LD50 = 2820 mg/kg;

Skin, rabbit: LD50 = 630 uL/kg;

630 uL/kg = 662 mg/kg.

### Carcinogenicity:

**CAS#** 98-29-3: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

**Epidemiology:** No information found

**Teratogenicity:** No information found

**Reproductive Effects:** No information found

**Mutagenicity:** See actual entry in RTECS for complete information.

**Neurotoxicity:** No information found

## Other Studies:

## Section 12 - Ecological Information

**Ecotoxicity:** Fish: *Pseudomonas putida*: ; ; No data available.

**Environmental:** No information available.

**Physical:** No information available.

**Other:** Not readily biodegradable and highly toxic to fish.

## Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

**RCRA P-Series:** None listed.

**RCRA U-Series:** None listed.

## Section 14 - Transport Information

	US DOT	Canada TDG
<b>Shipping Name:</b>	CORROSIVE SOLIDS, TOXIC, N.O.S.	TOXIC SOLID ORGANIC NOS (4-TERT-BUTYLCATECHOL)
<b>Hazard Class:</b>	8	6.1
<b>UN Number:</b>	UN2923	UN2811
<b>Packing Group:</b>	III	III

## Section 15 - Regulatory Information

### US FEDERAL

#### TSCA

CAS# 98-29-3 is listed on the TSCA inventory.

#### Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

#### Chemical Test Rules

CAS# 98-29-3: Testing required by manufacturers, processors

#### Section 12b

CAS# 98-29-3: Section 4

#### TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

#### CERCLA Hazardous Substances and corresponding RQs

None of the chemicals in this material have an RQ.

#### SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

#### Section 313

No chemicals are reportable under Section 313.

#### Clean Air Act:

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depleters.

This material does not contain any Class 2 Ozone depleters.

#### Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

#### OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

#### STATE

CAS# 98-29-3 can be found on the following state right to know lists: Pennsylvania, Minnesota, Massachusetts.

### California Prop 65

California No Significant Risk Level: None of the chemicals in this product are listed.

### European/International Regulations

#### European Labeling in Accordance with EC Directives

#### Hazard Symbols:

C

#### Risk Phrases:

R 21 Harmful in contact with skin.

R 34 Causes burns.

R 43 May cause sensitization by skin contact.

#### Safety Phrases:

S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

S 45 In case of accident or if you feel unwell, seek medical advice

immediately (show the label where possible).

**WGK (Water Danger/Protection)**

CAS# 98-29-3: No information available.

**Canada - DSL/NDSL**

CAS# 98-29-3 is listed on Canada's DSL List.

**Canada - WHMIS**

This product has a WHMIS classification of E, D1B, D2B.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

**Canadian Ingredient Disclosure List**

CAS# 98-29-3 is listed on the Canadian Ingredient Disclosure List.

<b>Section 16 - Additional Information</b>
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**MSDS Creation Date:** 4/30/1999

**Revision #4 Date:** 10/03/2005

*The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Fisher be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Fisher has been advised of the possibility of such damages.*