Section 1. Identification

Product Identity 4-Tertiary Butyl Catechol 85%
Other means of identification 1,2-Benzenediol, 4-(1,1-dimethylethyl)-, 4-tert-Butylpyrocatechol, p-tert-Butylcatechol, and 4-tert-Butyl-1,2-benzenediol

Relevant identified uses of the substance or mixture

Antioxidants

Details of the supplier of the safety data sheet

Company Name
Silver Fern Chemical, Inc.
121 W. De La Guerra Street, Suite B
Santa Barbara, CA 93101 USA
Customer Service: 1-866-282-3384 /
info@silverfernchemical.com
Website - www.silverfernchemical.com

Emergency
24 hour Emergency Telephone No.
Infotrac: 1-800-535-5053
Outside USA & Canada +1-352-323-3500

Section 2. Hazard(s) identification

Classification of the substance or mixture under OSHA's Hazard Communication Standard (1910.1200) revised 2024 (GHS revision 7)

Acute toxicity(oral), category 4;H302	Harmful if swallowed.
Acute toxicity(dermal), category 4;H312	Harmful in contact with skin.
Skin corrosion/irritation category 1B;H314	Causes severe skin burns and eye damage.

Serious eye damage / eye irritation, category 1;H318	Causes serious eye damage.
Aquatic toxicity (chronic), category 2;H411	Toxic to aquatic life with long lasting effects.

Label elements





Danger

H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H314 Causes severe skin burns and eye damage.
H411 Toxic to aquatic life with long lasting effects.

[Prevention]
P260 Do not breathe dust, fume, mist, vapors or spray.
P264 Wash thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P273 Avoid release to the environment.
P280 Wear protective gloves, protective clothing, eye protection, face protection.
[Response]
P301+312 IF SWALLOWED: Call a POISON CENTER, doctor or physician if you feel unwell.
P302+352 IF ON SKIN: Wash with plenty of soap and water.
P303+361+353 IF ON SKIN (or hair): Remove, take off immediately all contaminated clothing. Rinse skin with water, shower.

P304+340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER, doctor or physician.
P312 Call a POISON CENTER, doctor or physician if you feel unwell.
P301+330+331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P362+364 Take off contaminated clothing and wash it before reuse.
P363 Wash contaminated clothing before reuse.
P391 Collect spillage.
[Storage]
P405 Store locked up.
[Disposal]
P501 Dispose of contents or container in accordance with local and national regulations.

Other hazards
This product contains no PBT/vPvB/vPvM chemicals.
This product contains no endocrine disrupting chemicals.

Does not contain component(s) that meet a 'definition' of per & poly fluoroalkyl substance (PFAS) per the Organization for Economic Co-operation and Development (OECD) list of Per- and Polyfluoroalkyl Substances (PFASs).

Section 3. Composition/information on ingredients

This product contains the following substances that present a hazard within the meaning of the OSHA's Hazard Communication Standard (1910.1200) revised 2024 (GHS revision 7).

Ingredient/Chemical Designations	Weight %	GHS Classification	Notes
4-tert-Butyl catechol **CAS Number: 98-29-3** **Synonyms: Tert. butyl catechol**	**80 - 86**	**Acute toxicity(oral), category 4;H302** **Acute toxicity(dermal), category 4;H312** **Skin corrosion/irritation category 1B;H314** **Aquatic toxicity (chronic), category 2;H411**	**No data available**
Water **CAS Number: 7732-18-5**	**14 - 16**		**No data available**

The actual concentration or concentration range is withheld as a trade secret.
*PBT/vPvB - PBT, vPvM or vPvB-substance.
The full texts of the phrases are shown in Section 16.

Section 4. First aid measures

Description of first aid measures

General In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.

Inhalation Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give artificial respiration. If unconscious, place in the recovery position and obtain immediate medical attention. Give nothing by mouth.

Eyes Rinse with plenty of clean water for at least 15 minutes, holding the eyelids apart and seek medical attention.

Skin Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognized skin cleanser.

Ingestion If swallowed obtain immediate medical attention. Keep at rest. Do NOT induce vomiting.

Most important symptoms and effects, both acute and delayed

Overview No specific symptom data available.
No chronic toxicity or long-term toxicity information available. Treat symptomatically. See section 2 for further details.

Eyes Causes serious eye damage.

Skin Harmful in contact with skin. Causes severe skin burns and eye damage.

Ingestion Harmful if swallowed.

Section 5. Fire-fighting measures

Extinguishing media

Recommended extinguishing media; alcohol resistant foam, CO_2, powder, water spray.
Unsuitable extinguishing media: Do not use; water jet.

Special hazards arising from the substance or mixture

Hazardous decomposition: On combustion, toxic gases are released.
Do not breathe dust, fume, mist, vapors or spray.

Advice for fire-fighters

As with all fires, wear positive pressure, self-contained breathing apparatus, (SCBA) with a full-face piece and protective clothing. Persons without respiratory protection should leave area. Wear SCBA during clean-up immediately after fire. No smoking.

ERG Guide No. 153

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Put on appropriate personal protective equipment (see section 8).
Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.
Stop leak if safe to do so.
Avoid contact with eyes, skin, and respiratory system.
Do not allow uncontrolled discharge of product into the environment.
Mark the contaminated area with signs and prevent access to unauthorized personnel.

Environmental precautions

Do not allow spills to enter drains or waterways.

Methods and material for containment and cleaning up

Recovery - Pump or collect any free spillage into an appropriate closed container. (see Section 7: Handling and Storage). Recover as much of the product as possible.
Soak up with inert absorbent material. Sweep up and shovel into suitable containers for disposal.
Decontamination / cleaning - Wash the nonrecoverable remainder with caustic soda solution (2-5 % NaOH). Wash off with plenty of water. Recover the cleaning water for subsequent disposal.
Disposal - Dispose of in accordance with local regulations. Treat recovered material as described in the section "Disposal considerations".

Section 7. Handling and storage

Precautions for safe handling
Handle containers carefully to prevent damage and spillage.
Provide adequate ventilation. Avoid splashes. Use only with adequate ventilation/personal protection. Avoid any direct contact with the product. The product must only be handled by specifically trained employees.
Hygiene measures
Personal hygiene is an important work practice exposure control measure, and the following general measures should be taken when working with or handling these materials**:** Do not store, use, and/or consume foods, beverages, tobacco products, or cosmetics in areas where this material is stored. Wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics, or using the toilet. Wash exposed skin promptly to remove accidental splashes or contact with material. Ensure that eyewash stations and safety showers are close to the workstation location. Use clean, well maintained personal protection equipment. Store personal protection equipment in a clean location away from the work area.
See section 2 for further details. - [Prevention]

Conditions for safe storage, including any incompatibilities
Incompatible materials: Do not allow contact with air. Protect against light. Keep away from: Strong oxidizing agents, Strong bases.
Packaging material
Suitable material - Plastic materials (polyethylene).
Unsuitable material - Iron
Remarks - Plastic drum
See section 2 for further details. - [Storage]

Specific end use(s)
No available information

Section 8. Exposure controls / personal protection

Control parameters

Exposure Limits

CAS No.	Ingredient	Source	Value
98-29-3	4-tert-Butyl catechol	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit

Exposure controls	
Respiratory	If workers are exposed to concentrations above the exposure limit they must use the appropriate, certified respirators.
Eyes	Wear safety glasses with side shields to protect the eyes. An eye wash station is suggested as a good workplace practice.
Skin	Avoid skin contact. Wear PVC or rubber gloves to keep skin contact to a minimum. Refer to the manufacturer's recommendations regarding the suitability of any gloves used.
Engineering Controls	Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and any vapor below occupational exposure limits suitable respiratory protection must be worn.
Other Work Practices	Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

See section 2 for further details.

Section 9. Physical and chemical properties

Information on basic physical and chemical properties

Physical State	Liquid
Color	Amber - yellow
Odor	Phenol-like
Odor threshold	No available information
Melting point / freezing point	No available information
Initial boiling point and boiling range	100 to 285°C
Flammability (solid, gas)	Not Applicable
Upper/lower flammability or explosive limits	**Lower Explosive Limit:** No available information **Upper Explosive Limit:** No available information
Flash Point	Not applicable, aqueous liquid for which the organic components have flash point > 100 °C / 212°F
Auto-ignition temperature	No available information

Decomposition temperature	No available information
pH	ca. 4.0 (85 % (m/v))
Viscosity (cSt)	Viscosity, dynamic : 95 cst max at 25 °C
Solubility in Water	No available information
Partition coefficient n-octanol/water (Log Kow)	No available information
Vapor pressure (Pa)	No available information
Relative Density	1.06 g/cm3 (68 °F (20 °C))
Vapor Density	No available information
Evaporation rate (Ether = 1)	No available information
Oxidising properties	Not considered as oxidizing., Structure-activity relationship (SAR)
Explosive properties	No available information
Crystallization point/ crystallization range	54 - 59 °F (12 - 15 °C)
Molecular Weight	166.2 g/mol

Other information
No other relevant information.

Section 10. Stability and reactivity

Reactivity
Hazardous Polymerization will not occur.
Chemical stability
Stable under normal circumstances.
Possibility of hazardous reactions
No available information
Conditions to avoid
Avoid high temperatures and contact with incompatible material
Incompatible materials
Strong oxidizing agents. Strong bases
Hazardous decomposition products
On combustion, forms: Toxic Gas and Carbon oxides

Section 11. Toxicological information

Acute toxicity

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapor LC50, mg/L/4hr	Inhalation Dust/Mist LC50, mg/L/4hr	Inhalation Gas LC50, ppm
4-tert-Butyl catechol - (98-29-3)	815.00, Rat - Category: 4	1,331.00, Rat - Category: 4	No data available.	No data available.	No data available.

Carcinogen Data

CAS No.	Ingredient	Source	Value
98-29-3	4-tert-Butyl catechol	OSHA	Regulated Carcinogen: No;
		NTP	Known: No; Suspected: No;
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No;
		ACGIH	No Established Limit

Classification	Category	Hazard Description
Acute toxicity (oral)	4	Harmful if swallowed.
Acute toxicity (dermal)	4	Harmful in contact with skin.
Acute toxicity (inhalation)	---	Not Applicable
Skin corrosion/irritation	1B	Causes severe skin burns and eye damage.
Serious eye damage/irritation	1	Causes serious eye damage.
Respiratory sensitization	---	Not Applicable
Skin sensitization	---	Not Applicable
Germ cell mutagenicity	---	Not Applicable
Carcinogenicity	---	Not Applicable
Reproductive toxicity	---	Not Applicable
STOT-single exposure	---	Not Applicable
STOT-repeated exposure	---	Not Applicable
Aspiration hazard	---	Not Applicable

Possible routes of entry: No available information

Symptoms and effects, both acute and delayed:
No specific symptom data available.
No chronic toxicity or long term toxicity information available. Treat symptomatically.

Eyes Causes serious eye damage.

Skin Harmful in contact with skin. Causes severe skin burns and eye damage.
Ingestion Harmful if swallowed.

Section 12. Ecological information

Toxicity
Toxic to aquatic life with long lasting effects.
No additional information provided for this product. See Section 3 for chemical specific data.
Aquatic Ecotoxicity

Ingredient	96 hr LC50 fish, mg/L	48 hr EC50 crustacea, mg/L	ErC50 algae, mg/L
4-tert-Butyl catechol - (98-29-3)	0.12, zebra fish	0.48, Daphnia magna	No data available.

Persistence and degradability
There is no data available on the preparation itself.
Bioaccumulative potential
No available information
Mobility in soil
No available information
Results of PBT and vPvB assessment
This product contains no PBT/vPvB/vPvM chemicals.
Other adverse effects
No available information

Section 13. Disposal considerations

Waste treatment methods
Observe all federal, provincial and local regulations when disposing of this substance.

Section 14. Transport information

	DOT (Domestic Surface Transportation)	IMO / IMDG (Ocean Transportation)	ICAO/IATA
UN number	UN3265	UN3265	UN3265
UN proper shipping name	UN3265, Corrosive liquid, acidic, organic, n.o.s. (4-tert-butylpyrocatechol)	Corrosive liquid, acidic, organic, n.o.s. (4-tert-butylpyrocatechol)	Corrosive liquid, acidic, organic, n.o.s. (4-tert-butylpyrocatechol)
Transport hazard class(es)	**Class:**8 **Sub Class:** Not Applicable	**Class:**8 **Sub Class:** Not Applicable	**Class:**8 **Sub Class:** Not Applicable
Packing group	II	II	II

Environmental hazards

IMDG Marine Pollutant: Yes; (4-tert-Butyl catechol)

Special precautions for user

No available information

Section 15. Regulatory information

Regulatory Overview The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented.

Classification of the substance or mixture under OSHA's Hazard Communication Standard (1910.1200) revised 2024 (GHS revision 7)

Toxic Substance Control Act (TSCA)

CAS Number	Ingredient	Toxic Substance Control Act (TSCA)	Comments	Status
0000098-29-3	4-tert-Butyl catechol	Yes		ACTIVE

The following flags are used:
•Active - indicates commercial status designation of active
•E - indicates a substance that is the subject of a Section 5(e) Consent Order under TSCA.
•F - indicates a substance that is the subject of a Section 5(f) Rule under TSCA.
•N - indicates a polymeric substance containing no free-radical initiator in its Inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.
•P - indicates a commenced Premanufacture Notice (PMN) substance.
•R - indicates a substance that is the subject of a Section 6 risk management rule under TSCA.
•S - indicates a substance that is identified in a final Significant New Uses Rule.
•SP - indicates a substance that is identified in a proposed Significant New Uses Rule.
•T - indicates a substance that is the subject of a final Section 4 test rule under TSCA.

•UVCB Chemical Substances of Unknown or Variable Composition, Complex Reaction Products and Biological Materials •XU - indicates a substance exempt from reporting under the Chemical Data Reporting Rule, (40 CFR 711).
•Y1 - indicates a polymer that has a number-average molecular weight greater than 1,000 and that was exempt under the 1984 polymer exemption rule.
•Y2 - indicates a polymer that is a polyester and that was exempt under the 1984 polymer exemption rule.

EPCRA 302 Extremely Hazardous:
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

EPCRA 313 Toxic Chemicals:
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

BULK - US. EPA CERCLA Hazardous Substances and Reportable Quantities (40 CFR 302.4) (Only Applicable to BULK)

Components	CAS No.	Reportable quantity (RQ)
Pyrocatechol	120-80-9	100 lbs. (20,000 lbs. effective RQ of this product @ 0.50% Pyrocatechol, by weight)

Proposition 65 - Carcinogens (>0.0%):
Pyrocatechol.

Proposition 65 - Developmental Toxins (>0.0%):
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Female Repro Toxins (>0.0%):
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Male Repro Toxins (>0.0%):
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 Label Warning:
WARNING: This product can expose you to chemicals including [Pyrocatechol], which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

Mass RTK Substances (>1%) :
4-tert-Butyl catechol

New Jersey RTK Substances (>1%) :
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Pennsylvania RTK Substances (>1%):

4-tert-Butyl catechol

OSHA Process Safety Management Standard Highly Hazardous Chemicals, Toxics and Reactives:
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

US EPA List of Regulated Substances under the Risk Management Plan (RMP) Program:
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

US EPA Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) under the Minimum Risk Exemption:
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

U.S. - DEA List II or Essential Chemicals:
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

U.S. - DEA - Exempt Chemical Mixtures - List 1 and 2:
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

US DHS Chemical Facility Anti-Terrorism Standards (CFATS):
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

EPCRA 311/312 Chemicals and RQs:
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Section 16. Other information

Revision Date 07/22/2025

DISCLAIMER OF RESPONSIBILITY

The information on this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. Some information presented and conclusions drawn herein are from sources other than direct test data on the substance itself. The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume damage or expense arising out of or in any way responsibility and expressly disclaim liability for loss, connected with handling, storage, use, or disposal of this product. If the product is used as a component in another product, this SDS information may not be applicable.

The full text of the phrases appearing in section 3 is:

H302 Harmful if swallowed.

H312 Harmful in contact with skin.

H314 Causes severe skin burns and eye damage.

H411 Toxic to aquatic life with long lasting effects.

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