

## Zinc 3,5-di-tert-butylsalicylate

[Pricing >](#)

Linear Formula	[[C(CH <sub>3</sub> ) <sub>3</sub> C <sub>6</sub> H <sub>3</sub> (OH)CO <sub>2</sub> ] <sub>2</sub> Zn
Pubchem CID	4255607
MDL Number	MFCD00075334
EC No.	403-360-0
IUPAC Name	3,5-di-tert-butyl-2-hydroxybenzoic acid; zinc
Beilstein/Reaxys No.	N/A
SMILES	[Zn+2].CC(C)(C)c1cc(cc(C([O-])=O)c1O)C(C)(C)C.[O-]C(=O)c1cc(cc(c1O)C(C)(C)C)C(C)(C)C
Inchi Identifier	InChI=1S/2C15H22O3.Zn/c2*1-14(2,3)9-7-10(13(17)18)12(16)11(8-9)15(4,5)6/h2*7-8,16H,1-6H3,(H,17,18)/q;+2/p-2
Inchi Key	HCOFMIWUFBMIPV-UHFFFAOYSA-L

### Signal Word

Danger

### Hazard Statements

H228-H302-H410

### Hazard Codes

F,Xn,N

### Risk Codes

11-22-50/53

### Safety Statements

7-22-60-61

### RTECS Number

N/A

### Transport Information

UN 1325 4.1/PG 3

### WGK Germany

3

### GHS Pictograms

[GHS09](#)

[Environment](#)



[GHS07](#)

[Exclamation Point](#)



[GHS02 Flame](#)



[Create Printable PDF](#)

## SAFETY DATA SHEET

Date Accessed: 05/18/2024

Date Revised: 01/15/2022

## SECTION 1. IDENTIFICATION

**Product Identifiers:** All applicable American Elements product codes for CAS #42405-40-3

**Relevant identified uses of the substance:**  
Scientific research and development

Supplier details:  
American Elements  
10884 Weyburn Ave.  
Los Angeles, CA 90024  
Tel: +1 310-208-0551  
Fax: +1 310-208-0351

Emergency telephone number:  
Domestic, North America +1 800-424-9300  
International +1 703-527-3887

"

---

## SECTION 2. HAZARDS IDENTIFICATION

Classification of the substance or mixture  
GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)  
Flammable solids(Category 1), H228  
Acute toxicity, Oral(Category 4), H302  
Acute aquatic toxicity(Category 1), H400  
Chronic aquatic toxicity(Category 1), H410  
GHS Label elements, including precautionary statements  
Pictogram



Signal word  
Danger  
Hazard statement(s)  
H228  
Flammable solid.  
H302  
Harmful if swallowed.  
H410  
Very toxic to aquatic life with long lasting effects.  
Precautionary statement(s)  
P210  
Keep away from heat/sparks/open flames/hot surfaces. No smoking.  
P240  
Ground/bond container and receiving equipment.  
P241

Use explosion-proof electrical/ ventilating/ lighting/ equipment.  
P264  
Wash skin 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.  
P301 + P312  
IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.  
P330  
Rinse mouth.  
P370 + P378  
In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.  
P391  
Collect spillage.  
P501  
Dispose of contents/ container to an approved waste disposal plant.  
Hazards not otherwise classified (HNOC) or not covered by GHS-none

---

### **SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Substances  
Synonyms: 3,5-Di-tert-butylsalicylic acidzinc salt  
Formula: C<sub>30</sub>H<sub>42</sub>O<sub>6</sub>Zn  
Molecular weight: 564.04 g/mol  
CAS-No.: 42405-40-3  
EC-No.: 403-360-0  
Index-No.: 030-007-00-4

---

### **SECTION 4. FIRST AID MEASURES**

Description of first aid measures  
General advice  
Consult a physician. Show this safety data sheet to the doctor in attendance.  
Move out of dangerous area.  
If inhaled  
If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.  
In case of skin contact  
Wash off with soap and plenty of water. Consult a

physician.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11

Indication of any immediate medical attention and special treatment needed

No data available

---

## **SECTION 5. FIREFIGHTING MEASURES**

Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special hazards arising from the substance or mixture

No data available

Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

Further information

Use water spray to cool unopened containers.

---

## **SECTION 6. ACCIDENTAL RELEASE MEASURES**

Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing Vapors, mist or gas.

Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Avoid breathing dust.

For personal protection see section 8.

Environmental precautions

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

Methods and materials for containment and cleaning up

Sweep up and shovel. Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). Keep

in suitable, closed containers for disposal. Contain spillage, pick up with an electrically protected vacuum cleaner or by wet-brushing and transfer to a container for disposal according to local regulations (see section 13).

Reference to other sections

For disposal see section 13.

---

## **SECTION 7. HANDLING AND STORAGE**

Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols.

Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs.

Provide appropriate exhaust ventilation at places where dust is formed. Keep away from sources of ignition -No smoking. Take measures to prevent the build up of electrostatic charge.

For precautions see section 2.

Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place.

Keep in a dry place.

Specific end use(s)

Apart from the uses mentioned in section 1 no other specific uses are stipulated

---

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

Control parameters

Components with workplace control parameters

Contains no substances with occupational exposure limit values.

Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Safety glasses with side-shields conforming to EN166

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to

use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

#### Body Protection

Complete suit protecting against chemicals, Flame retardant antistatic protective clothing., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

#### Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

#### Control of environmental exposure

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

---

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

#### Appearance

Form: powder

Colour: white

#### Odor

No data available

#### Odor Threshold

No data available

#### pH

No data available

#### Melting point/freezing point

Melting point/range: 256 °C (493 °F)-dec.

#### Initial boiling point and boiling range

> 265 °C (> 509 °F) at 1,013 hPa (760 mmHg)

#### Flash point

No data available

#### Evaporation rate

No data available

#### Flammability (solid, gas)

No data available

#### Upper/lower flammability or explosive limits

No data available

#### Vapor pressure

No data available

Vapor density  
No data available  
Relative density  
No data available  
Water solubility  
0.018 g/l at 20 °C (68 °F)  
Partition coefficient: n-octanol/water  
log Pow: 2.32 at 18 °C (64 °F)  
Auto-ignition temperature  
> 400 °C (> 752 °F)  
Decomposition temperature  
No data available  
Viscosity  
No data available  
Explosive properties  
No data available  
Oxidizing properties  
No data available  
Other safety information  
Surface tension  
60.4 mN/m at 20 °C (68 °F)

---

## **SECTION 10. STABILITY AND REACTIVITY**

Reactivity  
No data available  
Chemical stability  
Stable under recommended storage conditions.  
Possibility of hazardous reactions  
No data available  
Conditions to avoid  
Heat, flames and sparks. Extremes of temperature and direct sunlight.  
Incompatible materials  
Strong oxidizing agents  
Hazardous decomposition products  
Hazardous decomposition products formed under fire conditions.-Carbon oxides, Zinc/zinc oxides  
Other decomposition products-No data available  
In the event of fire: see section 5

---

## **SECTION 11. TOXICOLOGICAL INFORMATION**

Information on toxicological effects  
Acute toxicity  
LD50 Oral-Rat-male and female-1,800 mg/kg  
(OECD Test Guideline 401)  
Inhalation:  
No data available  
LD50 Dermal-Rat-male and female-> 2,000 mg/kg

(OECD Test Guideline 402)

No data available

Skin corrosion/irritation

Skin-Rabbit

Result: No skin irritation

(OECD Test Guideline 404)

Serious eye damage/eye irritation

Eyes-Rabbit

Result: No eye irritation

(OECD Test Guideline 405)

Respiratory or skin sensitisation

Maximisation Test-Guinea pig

Did not cause sensitisation on laboratory animals.

(OECD Test Guideline 406)

Germ cell mutagenicity

in vitro assay

S. typhimurium

Result: negative

Mutagenicity (micronucleus test)

Mouse

Result: negative

Carcinogenicity

IARC:

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH:

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP:

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA:

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

No data available

No data available

Specific target organ toxicity -single exposure

No data available



Specific target organ toxicity -repeated exposure  
No data available  
Aspiration hazard  
No data available  
Additional Information  
RTECS: Not available  
To the best of our knowledge, the chemical, physical,  
and toxicological properties have not been thoroughly  
investigated.

---

## **SECTION 12. ECOLOGICAL INFORMATION**

Toxicity  
Toxicity to fish  
semi-static test  
LC50-Onchorhynchus clarki-5.5 mg/l-96 h  
Toxicity to daphnia and other aquatic invertebrates  
static test  
EC50-Daphnia (water flea)-0.73 mg/l-48 h  
Toxicity to algae  
EC50-Selenastrum capricornutum (green algae)-6.7  
mg/l-72 h  
(OECD Test Guideline 201)  
Persistence and degradability  
Biodegradability  
aerobic-Exposure time 28 d  
Result: 15 %-Not readily biodegradable.  
(OECD Test Guideline 301D)  
Bioaccumulative potential  
No data available  
Mobility in soil  
No data available  
Results of PBT and vPvB assessment  
PBT/vPvB assessment not available as chemical  
safety assessment not required/not conducted  
Other adverse effects  
An environmental hazard cannot be excluded in the  
event of unprofessional handling or disposal.  
Very toxic to aquatic life with long lasting effects.  
No data available

---

## **SECTION 13. DISPOSAL CONSIDERATIONS**

Waste treatment methods  
Product  
Burn in a chemical incinerator equipped with an  
afterburner and scrubber but exert extra care in  
igniting as this material is highly flammable.  
Offer surplus and non-recyclable solutions to a  
licensed disposal company.

Contaminated packaging  
Dispose of as unused product.

---

## **SECTION 14. TRANSPORT INFORMATION**

DOT (US)  
UN number: 1325  
Class: 4.1  
Packing group: III  
Proper shipping name: Flammable solids, organic,  
n.o.s.(Zinc 3,5-di-tert-butylsalicylate)  
Reportable Quantity(RQ):  
Marine pollutant: yes  
Poison Inhalation Hazard: No  
IMDG  
UN number: 1325  
Class: 4.1  
Packing group: III  
EMS-No: F-A, S-G  
Proper shipping name: FLAMMABLE SOLID,  
ORGANIC, N.O.S.(Zinc 3,5-di-tert-butylsalicylate)  
Marine pollutant: yes  
IATA  
UN number: 1325  
Class: 4.1  
Packing group: III  
Proper shipping name: Flammable solid, organic,  
n.o.s.(Zinc 3,5-di-tert-butylsalicylate)

---

## **SECTION 15. REGULATORY INFORMATION**

SARA 302 Components  
No chemicals in this material are subject to the  
reporting requirements of SARA Title III, Section 302.  
SARA 313 Components  
The following components are subject to reporting  
levels established by SARA Title III, Section 313:  
Zinc 3,5-di-tert-butylsalicylate  
CAS-No.  
42405-40-3  
Revision Date  
2007-07-01  
SARA 311/312 Hazards  
Fire Hazard, Acute Health Hazard  
Massachusetts Right To Know Components  
No components are subject to the Massachusetts  
Right to Know Act.  
Pennsylvania Right To Know Components  
Zinc 3,5-di-tert-butylsalicylate  
CAS-No.

42405-40-3  
Revision Date  
2007-07-01  
New Jersey Right To Know Components  
Zinc 3,5-di-tert-butylsalicylate  
CAS-No.  
42405-40-3  
Revision Date  
2007-07-01  
California Prop. 65 Components  
This product does not contain any chemicals known to  
State of California to cause cancer, birth defects, or  
any other reproductive harm..

---

## **16. OTHER INFORMATION**

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH). The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. American Elements shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. COPYRIGHT 1997-2022 AMERICAN ELEMENTS. LICENSED GRANTED TO MAKE UNLIMITED PAPER COPIES FOR INTERNAL USE ONLY.

---