# Chemical Safety Data Sheet MSDS / SDS

# 4-tert-Butylbenzyl chloride

Revision Date: 2025-09-27 Revision Number: 1

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

# **Product identifier** Product name : 4-tert-Butylbenzyl chloride CBnumber : CB3684971 CAS : 19692-45-6 **EINECS Number** : 243-228-8 Synonyms : 1-(tert-butyl)-4-(chloromethyl)benzene,4-tert-Butylbenzyl chloride Relevant identified uses of the substance or mixture and uses advised against Relevant identified uses : For R&D use only. Not for medicinal, household or other use. Uses advised against : none

# **Company Identification**

Company : Chemicalbook

Address : Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing

Telephone : 010-86108875

# SECTION 2: Hazards identification

# GHS Label elements, including precautionary statements Symbol(GHS) Signal word Danger

# Precautionary statements

P501 Dispose of contents/container to.....

P405 Store locked up.

P310 Immediately call a POISON CENTER or doctor/physician.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continuerinsing.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off Immediately all contaminated clothing. Rinse SKIN with water/shower.

P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P264 Wash skin thouroughly after handling.

P264 Wash hands thoroughly after handling.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

### **Hazard statements**

H335 May cause respiratory irritation

H318 Causes serious eye damage

H314 Causes severe skin burns and eye damage

# SECTION 3: Composition/information on ingredients

# **Substance**

Product name : 4-tert-Butylbenzyl chloride

Synonyms : 1-(tert-butyl)-4-(chloromethyl)benzene,4-tert-Butylbenzyl chloride

CAS : 19692-45-6
EC number : 243-228-8
MF : C11H15Cl
MW : 182.69

# SECTION 4: First aid measures

### Description of first aid measures

### General advice

Consult a physician. Show this material safety data sheet to the doctor in attendance.

# If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

# In case of skin contact

Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.

# In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

### 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 2.2) 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

Carbon oxides, Hydrogen chloride gas

# Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

# **Further information**

No data available

# **NFPA 704**

3 0

	HEALTH	3	Short exposure could cause serious temporary or moderate residual injury (e.g. <u>liquid hydrogen, sulfuric acid, calcium hypochlorite</u> , hexafluorosilicic acid)
-	FIRE	0	Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand. Materials that will not burn in air when exposed to a temperature of 820 °C (1,500 °F) for a period of 5 minutes.(e.g. Carbon tetrachloride)
	REACT	0	Normally stable, even under fire exposure conditions, and is not reactive with water (e.g. helium, N2)
	SPEC. HAZ.		

# SECTION 6: Accidental release measures

# Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. For personal protection see section 8.

# **Environmental precautions**

Do not let product enter drains.

# Methods and materials for containment and cleaning up

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

# 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 inhalation of vapor or mist. For precautions see section 2.2.

# Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

# Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

# SECTION 8: Exposure controls/personal protection

### control parameter

### Hazard composition and occupational exposure limits

Does not contain substances with occupational exposure limits.

### **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

Tightly fitting safety goggles. Faceshield (8-inch minimum). 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.

The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it. Body Protection

Complete suit protecting against chemicals, 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 respirator with multi-purpose combination (US) or type ABEK (EN 14387) 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

Do not let product enter drains.

# Information on basic physicochemical properties

Appearance	light yellow clear, liquid
Odour	No data available
Odour Threshold	No data available
pH	No data available
Melting point/freezing point	-18 °C
Initial boiling point and boiling range	101 - 105 °C at 9 hPa - lit.
Flash point	202 °F
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability or explosive	No data available
limits	
Vapour pressure	No data available
Vapour density	No data available
Relative density	0,945 g/cm3 at 25 °C
Water solubility	No data available
Partition coefficient: n-octanol/water	No data available
Autoignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No data available
Explosive properties	No data available
Oxidizing properties	No data available
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# Other safety information

No data available

# 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**

Avoid moisture.

# Incompatible materials

Alcohols, Bases, Amines, Oxidizing agents

# Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Hydrogen chloride gas

Other decomposition products - No data available In the event of fire: see section 5

# **SECTION 11: Toxicological information**

# Information on toxicological effects

Acute toxicity

No data available

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

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

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

Inhalation - May cause respiratory irritation.

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

**Additional Information** 

RTECS: Not available

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., Depending on the intensity and duration of exposure, effects may vary from mild irritation to severe destruction of tissue., burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea, Vomiting, spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi

# SECTION 12: Ecological information

# **Toxicity**

No data available

# Persistence and degradability

No data available

# Bioaccumulative potential

No data available

# Mobility in soil

No data available

# Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

# Other adverse effects

No data available

# SECTION 13: Disposal considerations

# Waste treatment methods

# **Product**

Offer surplus and non-recyclable solutions to a licensed disposal company.

# Contaminated packaging

Dispose of as unused product.

# **SECTION 14: Transport information**

# **SECTION 14: Transport information**

IATA:

**UN** number

ADR/RID:IMDG:IATA:ADR/RID:IMDG:IATA:

IATA:

IATA:

IATA:

**UN** number

ADR/RID:IMDG:IATA:ADR/RID:IMDG:IATA:

**UN** number

ADR/RID:IMDG:IATA:ADR/RID:IMDG:IATA:

# Transport hazard class(es)

ADR/RID: - IMDG: - IATA: -

ADR/RID: 3429 IMDG: 3429 IATA: 3429 ADR/RID: 1993 IMDG: 1993 IATA: 1993

ADR/RID: 6.1 IMDG: 6.1 IATA: 6.1

ADR/RID: 2811 IMDG: 2811 IATA: 2811

ADR/RID: 3 IMDG: 3 IATA: 3

ADR/RID: 4.3 IMDG: 4.3 IATA: 4.3

ADR/RID: 1551 IMDG: 1551 IATA: 1551

ADR/RID: 6.1 IMDG: 6.1 IATA: 6.1

ADR/RID: - IMDG: - IATA: ADR/RID: 3 IMDG: 3 IATA: 3

ADR/RID: 1989 IMDG: 1989 IATA: 1989

# **Packaging group**

ADR/RID: II IMDG: II IATA: II

ADR/RID: - IMDG: - IATA: 
ADR/RID: II IMDG: II IATA: II

ADR/RID: ANTIMONY POTASSIUM TARTRATE IMDG: ANTIMONY POTASSIUM TARTRATE IATA: Antimony potassium tartrate

ADR/RID: I IMDG: I IATA: I ADR/RID: I IMDG: I IATA: I ADR/RID: - IMDG: - IATA: -

ADR/RID: CHLOROTOLUIDINES, LIQUID IMDG: CHLOROTOLUIDINES, LIQUID IATA: Chlorotoluidines, liquid

ADR/RID: FLAMMABLE LIQUID, N.O.S. (Thiazolidin) IMDG: FLAMMABLE LIQUID, N.O.S. (Thiazolidin) IATA: Flammable liquid, n.o.s.

(Thiazolidin)

ADR/RID: III IMDG: III IATA: III

ADR/RID: TOXIC SOLID, ORGANIC, N.O.S. (PF 3845 hydrate) IMDG: TOXIC SOLID, ORGANIC, N.O.S. (PF 3845 hydrate) IATA: Toxic solid,

organic, n.o.s. (PF 3845 hydrate)

# Transport hazard class(es)

ADR/RID: 6.1 IMDG: 6.1 IATA: 6.1

ADR/RID: no IMDG Marine pollutant: no IATA: no

ADR/RID: 3 IMDG: 3 IATA: 3

ADR/RID: 6.1 IMDG: 6.1 IATA: 6.1

ADR/RID: no IMDG Marine pollutant: no IATA: no Special precautions for user Further information Not classified as dangerous in the meaning

of transport regulations.

ADR/RID: no IMDG Marine pollutant: no IATA: no ADR/RID: no IMDG Marine pollutant: no IATA: no

ADR/RID: 6.1 IMDG: 6.1 IATA: 6.1

ADR/RID: yes IMDG Marine pollutant: yes IATA: no ADR/RID: no IMDG Marine pollutant: no IATA: no ADR/RID: no IMDG Marine pollutant: no IATA: no

# Special precautions for user

No data available

No data available

No data available

ADR/RID: III IMDG: III IATA: III

No data available

No data available

ADR/RID: III IMDG: III IATA: III
ADR/RID: III IMDG: III IATA: III

No data available

ADR/RID: III IMDG: III IATA: III

### **Environmental hazards**

ADR/RID: no IMDG Marine pollutant: no IATA: no ADR/RID: no IMDG Marine pollutant: no IATA: no ADR/RID: no IMDG Marine pollutant: no IATA: no ADR/RID: yes IMDG Marine pollutant: yes IATA: no

# Special precautions for user

No data available

# **SECTION 15: Regulatory information**

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

### Regulations on the Safety Management of Hazardous Chemicals

China Catalog of Hazardous chemicals 2015:Not Listed. website: https://www.mem.gov.cn/

### Measures for Environmental Management of New Chemical Substances

Chinese Chemical Inventory of Existing Chemical Substances (China IECSC):Listed. website: https://www.mee.gov.cn/

EC Inventory:Listed.

European Inventory of Existing Commercial Chemical Substances (EINECS):Listed. website: https://echa.europa.eu/

United States Toxic Substances Control Act (TSCA) Inventory:Listed. website: https://www.epa.gov/

Korea Existing Chemicals List (KECL):Not Listed. website: http://ncis.nier.go.kr

New Zealand Inventory of Chemicals (NZIoC):Not Listed. website: https://www.epa.govt.nz/

Philippines Inventory of Chemicals and Chemical Substances (PICCS):Not Listed. website: https://emb.gov.ph/

Vietnam National Chemical Inventory: Not Listed. website: https://chemicaldata.gov.vn/

# SECTION 16: Other information

# Abbreviations and acronyms

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

CAS: Chemical Abstracts Service

EC50: Effective Concentration 50%

IATA: International Air Transportation Association

IMDG: International Maritime Dangerous Goods

LC50: Lethal Concentration 50%

LD50: Lethal Dose 50%

RID: Regulation concerning the International Carriage of Dangerous Goods by Rail

STEL: Short term exposure limit TWA: Time Weighted Average

### References

- [1] CAMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple
- [2] ChemlDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp
- [3] ECHA European Chemicals Agency, website: https://echa.europa.eu/
- [4] eChemPortal The Global Portal to Information on Chemical Substances by OECD, website:

http://www.echemportal.org/echemportal/index?pageID=0&request locale=en

- [5] ERG Emergency Response Guidebook by U.S. Department of Transportation, website: http://www.phmsa.dot.gov/hazmat/library/erg
- [6] Germany GESTIS-database on hazard substance, website: http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp
- [7] HSDB Hazardous Substances Data Bank, website: https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm
- [8] IARC International Agency for Research on Cancer, website: http://www.iarc.fr/
- [9] IPCS The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home
- [10] Sigma-Aldrich, website: https://www.sigmaaldrich.com/

### Disclaimer:

The information in this MSDS is only applicable to the specified product, unless otherwise specified, it is not applicable to the mixture of this product and other substances. This MSDS only provides information on the safety of the product for those who have received the appropriate professional training for the user of the product. Users of this MSDS must make independent judgments on the applicability of this SDS. The authors of this MSDS will not be held responsible for any harm caused by the use of this MSDS.