# Chemical Safety Data Sheet MSDS / SDS

# CYCLOPENTADIENYLTITANIUM TRICHLORIDE

Revision Date: 2025-06-21 Revision Number: 1

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

#### **Product identifier**

Product name : CYCLOPENTADIENYLTITANIUM TRICHLORIDE

CBnumber : CB0439048 CAS : 1270-98-0

Synonyms : CpTiCl3,Cyclopentadienyltitanium(IV) trichloride

## 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.....

P406 Store in corrosive resistant/... container with a resistant inner liner.

P405 Store locked up.

P390 Absorb spillage to prevent material damage.

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.

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

P234 Keep only in original container.

## Hazard statements

H318 Causes serious eye damage

H314 Causes severe skin burns and eye damage

H290 May be corrosive to metals

# SECTION 3: Composition/information on ingredients

#### **Substance**

Product name : CYCLOPENTADIENYLTITANIUM TRICHLORIDE

 $Synonyms \qquad \qquad : CpTiCl3, Cyclopentadienyl titanium (IV) \ trichloride$ 

CAS : 1270-98-0
MF : C5H5Cl3Ti5\*
MW : 219.32

# 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

Titanium/titanium oxides

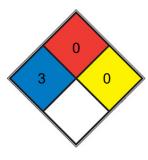
# Advice for firefighters

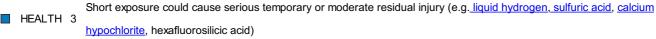
Wear self-contained breathing apparatus for firefighting if necessary.

#### **Further information**

No data available

## **NFPA 704**





Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete,

FIRE 0 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.

# 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. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

# **Environmental precautions**

Do not let product enter drains.

# Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. 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

## Advice on safe handling

Avoid formation of dust and aerosols.

## Advice on protection against fire and explosion

Provide appropriate exhaust ventilation at places where dust is formed.

# Hygiene measures

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

For precautions see section 2.2.

# Conditions for safe storage, including any incompatibilities

#### Storage conditions

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Moisture sensitive.

#### Storage class

Storage class (TRGS 510): 8B: Non-combustible, corrosive hazardous materials

# 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**

# Personal protective equipment

Eye/face protection

Face shield and safety glasses 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 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

Do not let product enter drains.

# SECTION 9: Physical and chemical properties

# Information on basic physicochemical properties

Odour Threshold No data available  PH No data available  Melting point/freezing point Melting point/range: 210 °C - dec.  Initial boiling point and boiling range No data available  Flash point No data available  Evaporation rate No data available  Flammability (solid, gas) No data available  Upper/lower flammability or explosive Ilimits  Vapour pressure No data available  Vapour density No data available  Relative density No data available No data available  Water solubility No data available  Partition coefficient: n-octanol/water No data available	Odour	-
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Relative density  No data available No data available  Water solubility  No data available	Vapour pressure	No data available
Water solubility No data available	Vapour density	No data available
Partition coefficient: n-octanol/water No data available	Relative density	No data available No data available
Autoignition temperature No data available	Water solubility	No data available
Decomposition temperature No data available	Water solubility Partition coefficient: n-octanol/water	No data available  No data available
Viscosity Viscosity, kinematic: No data available Viscosity, dynamic: No data available	Water solubility Partition coefficient: n-octanol/water Autoignition temperature	No data available  No data available  No data available
Explosive properties No data available	Water solubility  Partition coefficient: n-octanol/water  Autoignition temperature  Decomposition temperature	No data available  No data available  No data available  No data available
Oxidizing properties No data available	Water solubility  Partition coefficient: n-octanol/water  Autoignition temperature  Decomposition temperature  Viscosity	No data available  No data available  No data available  No data available  Viscosity, kinematic: No data available Viscosity, dynamic: No data available

# 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

## Conditions to avoid

No data available

## Incompatible materials

Strong oxidizing agentsStrong oxidizing agents

# Hazardous decomposition products

In the event of fire: see section 5

# SECTION 11: Toxicological information

# Information on toxicological effects

## **Acute toxicity**

Oral

## 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

No data available

# Reproductive toxicity

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

# **SECTION 12: Ecological information**

# **Toxicity**

No data available

# Persistence and degradability

# 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. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

# Contaminated packaging

Dispose of as unused product.

# **SECTION 14: Transport information**

## **UN** number

ADR/RID: 3261 IMDG: 3261 IATA: 3261

# UN proper shipping name

ADR/RID: CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S. (Cyclopentadienyltitanium(IV) trichloride) IMDG: CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S. (Cyclopentadienyltitanium(IV) trichloride)

IATA: Corrosive solid, acidic, organic, n.o.s. (Cyclopentadienyltitanium(IV) trichloride)

# Transport hazard class(es)

ADR/RID: 8 IMDG: 8 IATA: 8

# **Packaging group**

ADR/RID: II IMDG: II IATA: II

# **Environmental hazards**

ADR/RID: no IMDG Marine pollutant: no 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

United States Toxic Substances Control Act (TSCA) Inventory: Not Listed. website: https://www.epa.gov/

European Inventory of Existing Commercial Chemical Substances (EINECS): Not Listed. website: https://echa.europa.eu/

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

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

Chinese Chemical Inventory of Existing Chemical Substances (China IECSC):Not Listed. website: https://www.mee.gov.cn/

Vietnam National Chemical Inventory:Listed. website: https://chemicaldata.gov.vn/

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

EC Inventory: Not Listed.

# **SECTION 16: Other information**

# Abbreviations and acronyms

CAS: Chemical Abstracts Service

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

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

IMDG: International Maritime Dangerous Goods

IATA: International Air Transportation Association

TWA: Time Weighted Average

STEL: Short term exposure limit

LC50: Lethal Concentration 50%

LD50: Lethal Dose 50%

EC50: Effective Concentration 50%

#### 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:

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