Safety Data Sheet

according to Regulation (EC) No 1907/2006 (REACH)
Classifications according to Regulation (EC) No 1272/2008.
Printdate 16 Aug 2022

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product name:

TDCPP

1.1. Catalog No.:

673140

1.2. Relevant identified uses of the substance or mixture

Identified: Laboratory chemical
uses: R&D

1.3. Uses advised against:

HPC Standards GmbH
Am Wieseneck 7

04451 Cunnersdorf
Deutschland

Tel. +49 34291 3372-36
Fax. +49 34291 3372-39
contact@hpc-standards.com

1.4. Emergency telephone number

HPC Standards Tel. +49 34291 3372-36
This number is only available during office hours.

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture
Classification according to Regulation (EC) No 1272/2008
Carcinogenicity (Category 2), H351
Chronic aquatic toxicity (Category 2), H411 Classification according to EU Directives 67/548/EEC or 1999/45/EC
Xn, N Harmful, Dangerous for the environment
R40, R51/53

2.2. Label elements

2.2.1. Pictogram

2.2.2.

Signal word Warning
Hazard statement(s)

H351 Suspected of causing cancer.
H411 Toxic to aquatic life with long lasting effects. Precautionary statement(s)
P273 Avoid release to the environment.
P281 Use personal protective equipment as required.
Supplemental Hazard
Statements
none
2.3 Other hazards - none

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances
Formula : C9H15Cl6O4P
Molecular Weight : 430,90 g/mol
CAS-No. : 13674-87-8
EC-No. : 237-159-2
Hazardous ingredients according to Regulation (EC) No 1272/2008
Component Classification Concentration
Tris[2-chloro-1-(chloromethyl)ethyl] phosphate
CAS-No.
EC-No.
13674-87-8
237-159-2
Carc. 2; Aquatic Chronic 2;
H351, H411
<= 100 %
Hazardous ingredients according to Directive 1999/45/EC
Component Classification Concentration
Tris[2-chloro-1-(chloromethyl)ethyl] phosphate
CAS-No.
EC-No.
13674-87-8
237-159-2
Xn, N, R40 - R51/53 <= 100 %

3.1.1. Formula

C9H15Cl6O4P

3.1.2. Molecular Weight (g/mol)

430.90

3.1.3. CAS-No.

13674-87-8

4. FIRST AID MEASURES

4.1 Description of first aid measures
General advice
Consult a physician. Show this 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
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
Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
4.2 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
4.3 Indication of any immediate medical attention and special treatment needed
no data available

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media
Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. 5.2 Special hazards arising from the substance or mixture
Carbon oxides, Oxides of phosphorus, Hydrogen chloride gas
5.3 Advice for firefighters
Wear self contained breathing apparatus for fire fighting if necessary.
5.4 Further information
no data available

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation.
Evacuate personnel to safe areas.
For personal protection see section 8.
6.2 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.
6.3 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.
6.4 Reference to other sections
For disposal see section 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling
Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.
For precautions see section 2.2.
7.2 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.
7.3 Specific end use(s)
Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters
Components with workplace control parameters
8.2 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, 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
Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties
a) Appearance Form: liquid
Colour: colourless
b) Odour no data available
c) Odour Threshold no data available
d) pH no data available
e) Melting point/freezing point
Melting point/freezing point: < -20 °C
f) Initial boiling point and boiling range
326 °C at 1.012,60 hPa
g) Flash point 250 - 252 °C - open cup
h) Evapouration rate no data available
i) Flammability (solid, gas) no data available
j) Upper/lower flammability or explosive limits
no data available

k) Vapour pressure 9 hPa at 65 °C
l) Vapour density no data available
m) Relative density 1,514 g/cm3
n) Water solubility 0,0181 g/l at 20 °C - slightly soluble o) Partition coefficient: noctanol/ water
log Pow: 3,69 at 20 °C
p) Auto-ignition temperature
no data available
q) Decomposition temperature
no data available
r) Viscosity no data available
s) Explosive properties no data available
t) Oxidizing properties no data available
9.2 Other safety information
no data available

10. STABILITY AND REACTIVITY

10.1 Reactivity
no data available
10.2 Chemical stability
Stable under recommended storage conditions.
10.3 Possibility of hazardous reactions
no data available
10.4 Conditions to avoid
no data available
10.5 Incompatible materials
Strong oxidizing agents
10.6 Hazardous decomposition products
Other decomposition products - no data available
In the event of fire: see section 5

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects
Acute toxicity
LD50 Oral - rat - male and female - > 2.000 mg/kg
(OECD Test Guideline 401)
LC50 Inhalation - rat - male and female - 4 h - > 5,22 mg/l
(OECD Test Guideline 403)
LD50 Dermal - rat - male and female - > 2.000 mg/kg
(OECD Test Guideline 402)
Skin corrosion/irritation
Skin - rabbit
Result: Skin irritation
(OECD Test Guideline 404)
Serious eye damage/eye irritation
Eyes - rabbit
Result: Mild eye irritation
(OECD Test Guideline 405)
Respiratory or skin sensitisation
Maximisation Test - guinea pig
Result: Does not cause skin sensitisation.
(OECD Test Guideline 406) Germ cell mutagenicity
Hamster
ovary
Result: negative
mouse - male

Result: negative
Carcinogenicity
Carcinogenicity - rat - Oral
Tumorigenic:Neoplastic by RTECS criteria. Kidney, Ureter, Bladder:Tumors.
Carcinogenicity - rat - Oral
Tumorigenic:Carcinogenic by RTECS criteria. Liver:Tumors.
Suspected human carcinogens
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.
Reproductive toxicity
Reproductive toxicity - rat - Oral
Effects on Fertility: Litter size (e.g.; # fetuses per litter; measured before birth). Effects on Embryo or Fetus: Fetal death.
Developmental Toxicity - rat - Oral
Effects on Embryo or Fetus: Fetal death. 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
Repeated dose toxicity - rat - male and female - Oral - Lowest observed adverse effect level - 5 mg/kg
RTECS: UB1473000

12. ECOLOGICAL INFORMATION

12.1 Toxicity
Toxicity to fish semi-static test LC50 - Oncorhynchus mykiss (rainbow trout) - 1,1 mg/l - 96,0 h
(OECD Test Guideline 203)
Toxicity to daphnia and
other aquatic
invertebrates
Immobilization EC50 - Daphnia magna (Water flea) - 3,8 mg/l - 48 h
(OECD Test Guideline 202)
Toxicity to algae Growth inhibition ErC50 - Pseudokirchneriella subcapitata (green algae) - 4,5 mg/l - 72 h
(OECD Test Guideline 201)
Toxicity to bacteria Respiration inhibition EC50 - Sludge Treatment - > 10 mg/l - 3 h
(OECD Test Guideline 209)
12.2 Persistence and degradability
Biodegradability aerobic - Exposure time 28 d
(OECD Test Guideline 301B)
12.3 Bioaccumulative potential
Bioaccumulation Oryzias latipes - 30 d Bioconcentration factor (BCF): 31 - 59
12.4 Mobility in soil
no data available
12.5 Results of PBT and vPvB assessment
PBT/vPvB assessment not available as chemical safety assessment not required/not conducted
12.6 Other adverse effects
Toxic to aquatic life with long lasting effects.
Avoid release to the environment.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods
Product
Offer surplus and non-recyclable solutions to a licensed disposal company.
Contaminated packaging
Dispose of as unused product.

14. TRANSPORT INFORMATION

14.1 UN number
ADR/RID: 3082 IMDG: 3082 IATA: 3082
14.2 UN proper shipping name
ADR/RID: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Tris[2-chloro-1-(chloromethyl)ethyl] phosphate)
IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Tris[2-chloro-1-(chloromethyl)ethyl] phosphate)
IATA: Environmentally hazardous substance, liquid, n.o.s. (Tris[2-chloro-1-(chloromethyl)ethyl] phosphate)
14.3 Transport hazard class(es)
ADR/RID: 9 IMDG: 9 IATA: 9
14.4 Packaging group
ADR/RID: III IMDG: III IATA: III
14.5 Environmental hazards
ADR/RID: yes IMDG Marine pollutant: yes IATA: yes
14.6 Special precautions for user
Further information
EHS-Mark required (ADR 2.2.9.1.10, IMDG code 2.10.3) for single packagings and combination packagings containing inner packagings with Dangerous Goods > 5L for liquids or > 5kg for solids.

15. REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.
15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
no data available
15.2 Chemical Safety Assessment
For this product a chemical safety assessment was not carried out

16. OTHER INFORMATION

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. For lab use only!