

## Safety Data Sheet

according to Regulation (EC) No 1907/2006 (REACH)  
Classifications according to Regulation (EC) No 1272/2008.  
Printdate 21 Jul 2023

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

### 1.1. Product name:

Chlorendic acid

### 1.1. Catalog No.:

685331

### 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  
Serious eye damage (Category 1), H318  
Carcinogenicity (Category 2), H351

### 2.2. Label elements

#### 2.2.1. Pictogram



#### 2.2.2.

2.2 Label elements  
Labelling according Regulation (EC) No 1272/2008  
Pictogram Signal word Danger  
Hazard statement(s)  
H318 Causes serious eye damage.

H351 Suspected of causing cancer.

Precautionary statement(s)

P280 Wear protective gloves/ eye protection/ face protection P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove

contact lenses, if present and easy to do. Continue rinsing.

Supplemental Hazard

Statements

none

2.3 Other hazards - none

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Formula : C<sub>9</sub>H<sub>4</sub>Cl<sub>6</sub>O<sub>4</sub>

Molecular weight : 388.84 g/mol

CAS-No. : 115-28-6

EC-No. : 204-078-9

Hazardous ingredients according to Regulation (EC) No 1272/2008

Component Classification Concentration

1,4,5,6,7,7-Hexachloro-5-norbornene-2,3-dicarboxylic acid

CAS-No.

EC-No.

115-28-6

204-078-9

Eye Dam. 1; Carc. 2; H318,

H351

<= 100 %

#### 3.1.1. Formula

C<sub>9</sub>H<sub>4</sub>Cl<sub>6</sub>O<sub>4</sub>

#### 3.1.2. Molecular Weight (g/mol)

388.84

#### 3.1.3. CAS-No.

115-28-6

#### 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

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

###### 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, Hydrogen chloride gas

##### 5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting 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 dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

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.

##### 6.3 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.

##### 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 formation of dust and aerosols.

Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire

protection.

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.

Storage class (TRGS 510): Combustible Solids

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

Occupational exposure limits No exposure limits noted for ingredient(s).

Biological limit values No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. General ventilation normally adequate. Provide eyewash station.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin protection

Hand protection Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier.

Other Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.

Respiratory protection Wear positive pressure self-contained breathing apparatus (SCBA).

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations Keep away from food and drink. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

a) Appearance Form: solid

b) Odour No data available

c) Odour Threshold No data available

d) pH No data available

e) Melting point/freezing

point

Melting point/range: 239 - 242 °C - lit.

f) Initial boiling point and

boiling range

No data available

g) Flash point No data available

h) Evaporation rate No data available

i) Flammability (solid, gas) No data available

j) Upper/lower

flammability or

explosive limits

No data available

k) Vapour pressure No data available

l) Vapour density No data available

m) Relative density No data available

n) Water solubility No data available

o) Partition coefficient: noctanol/

water

No data available

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  
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

## 11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects  
Acute toxicity  
No data available 1,4,5,6,7,7-Hexachloro-5-norbornene-2,3-dicarboxylic acid  
Skin corrosion/irritation  
Skin - Rabbit(1,4,5,6,7,7-Hexachloro-5-norbornene-2,3-dicarboxylic acid)  
Result: Mild skin irritation - 24 h  
Serious eye damage/eye irritation  
Eyes - Rabbit(1,4,5,6,7,7-Hexachloro-5-norbornene-2,3-dicarboxylic acid)  
Result: Severe eye irritation - 24 h  
Respiratory or skin sensitisation  
No data available(1,4,5,6,7,7-Hexachloro-5-norbornene-2,3-dicarboxylic acid)  
Germ cell mutagenicity  
Mouse(1,4,5,6,7,7-Hexachloro-5-norbornene-2,3-dicarboxylic acid)  
lymphocyte  
Mutation in mammalian somatic cells.  
Hamster(1,4,5,6,7,7-Hexachloro-5-norbornene-2,3-dicarboxylic acid)  
Lungs  
Cytogenetic analysis  
Carcinogenicity  
This product is or contains a component that has been reported to be possi classification.(1,4,5,6,7,7-Hexachloro-5-norbornene-2,3-dicarboxylic acid)  
Limited evidence of carcinogenicity in animal studies(1,4,5,6,7,7-Hexachloro-5-norbornene-2,3-dicarboxylic acid)  
(1,4,5,6,7,7-Hexachloro-5-norbornene-2,3-dicarboxylic acid)  
IARC: 2B - Group 2B: Possibly carcinogenic to humans (1,4,5,6,7,7-Hexachloro-5-norbornene-2,3-dicarboxylic acid)  
Reproductive toxicity  
No data available(1,4,5,6,7,7-Hexachloro-5-norbornene-2,3-dicarboxylic acid)  
Specific target organ toxicity - single exposure  
No data available(1,4,5,6,7,7-Hexachloro-5-norbornene-2,3-dicarboxylic acid)  
Specific target organ toxicity - repeated exposure  
No data available  
Aspiration hazard  
No data available(1,4,5,6,7,7-Hexachloro-5-norbornene-2,3-dicarboxylic acid) Additional Information  
RTECS: RB9000000

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. (1,4,5,6,7,7-Hexachloro-5-norbornene-2,3-dicarboxylic acid)

## 12. ECOLOGICAL INFORMATION

### 12.1 Toxicity

No data available

### 12.2 Persistence and degradability

No data available

### 12.3 Bioaccumulative potential

No data available

### 12.4 Mobility in soil

No data available (1,4,5,6,7,7-Hexachloro-5-norbornene-2,3-dicarboxylic acid)

### 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

No data available

## 13. DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chem scrubber.

Contaminated packaging

Dispose of as unused product.

## 14. TRANSPORT INFORMATION

### 14.1 UN number

ADR/RID: - IMDG: - IATA: -

### 14.2 UN proper shipping name

ADR/RID: Not dangerous goods

IMDG: Not dangerous goods

IATA: Not dangerous goods

### 14.3 Transport hazard class(es)

ADR/RID: - IMDG: - IATA: -

### 14.4 Packaging group

ADR/RID: - IMDG: - IATA: -

### 14.5 Environmental hazards

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

### 14.6 Special precautions for user

No data available

## 15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture  
This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

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!