

## 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:

4-Androstene-3,17-dione

### 1.1. Catalog No.:

677839

### 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  
Acute toxicity, Oral (Category 4), H302  
Carcinogenicity (Category 2), H351  
Reproductive toxicity (Category 1A), H360  
Effects on or via lactation, H362 Classification according to EU Directives 67/548/EEC or 1999/45/EC  
T Toxic R22, R40, R52, R60, R61, R64

### 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)

H302 Harmful if swallowed.

H351 Suspected of causing cancer H360 May damage fertility or the unborn child.

H362 May cause harm to breast-fed children.

Precautionary statement(s)

P201 Obtain special instructions before use.

P263 Avoid contact during pregnancy/ while nursing.

P281 Use personal protective equipment as required.

P308 + P313 IF exposed or concerned: Get medical advice/ attention.

Supplemental Hazard

Statements

none

Restricted to professional users.

2.3 Other hazards

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.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Synonyms : Androstenedione

Formula : C<sub>19</sub>H<sub>26</sub>O<sub>2</sub>

Molecular weight : 286,41 g/mol

CAS-No. : 63-05-8

EC-No. : 200-554-5

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

Component Classification Concentration

Androst-4-ene-3,17-dione

CAS-No.

EC-No.

63-05-8

200-554-5

Acute Tox. 4; Carc. 2; Repr.

1A; Lact. ; H302, H351, H360,

H362

<= 100 %

Hazardous ingredients according to Directive 1999/45/EC

Component Classification Concentration

Androst-4-ene-3,17-dione

CAS-No.

EC-No.

63-05-8

200-554-5

T, R22 - R40 - R52 - R60 -

R61 - R64

<= 100 %

#### 3.1.1. Formula

C<sub>19</sub>H<sub>26</sub>O<sub>2</sub>

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

286.41

### 3.1.3. CAS-No.

63-05-8

## 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

### 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. Discharge into the environment must be avoided.

**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. Avoid exposure - obtain special instructions before use.

Provide appropriate exhaust ventilation at places where dust is formed.

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): Non-combustible, acute toxic Cat.3 / toxic hazardous materials or hazardous materials causing chronic effects

**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 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.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

- a) Appearance Form: crystalline
  - b) Odour No data available
  - c) Odour Threshold No data available
  - d) pH No data available
  - e) Melting point/freezing point  
Melting point/range: 170 - 171 °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) The product is not flammable. - Flammability (solids)
  - 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 1,18 g/cm<sup>3</sup> at 20 °C
  - n) Water solubility 0,066 g/l at 20 °C - slightly soluble
  - o) Partition coefficient: noctanol/water  
log Pow: 2,7 at 25 °C
  - p) Auto-ignition temperature  
No data available
  - q) Decomposition temperature  
200 °C -
  - r) Viscosity No data available
  - s) Explosive properties No data available
  - t) Oxidizing properties No data available
- ### 9.2 Other safety information
- Surface tension 68,5 mN/m at 20 °C

## 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 - > 500 - < 1.000 mg/kg  
(OECD Test Guideline 423)  
LD50 Dermal - Rat - male and female - > 2.000 mg/kg

(OECD Test Guideline 402)  
Skin corrosion/irritation  
Skin - Rat  
Result: No skin irritation - 24 h  
(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 (GPMT) - Guinea pig Result: Does not cause skin sensitisation.  
(OECD Test Guideline 406)  
Germ cell mutagenicity  
No data available  
Hamster  
fibroblast  
Result: negative  
OECD Test Guideline 474  
Rat - male  
Result: negative  
Carcinogenicity  
Carcinogenicity - Mouse - male and female - Oral  
hepatocellular carcinoma  
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  
No data available  
Specific target organ toxicity - single exposure  
Specific target organ toxicity - repeated exposure  
Aspiration hazard  
Additional Information  
Repeated dose toxicity - Rat - male and female - Oral - No observed adverse effect level - 5 mg/kg  
RTECS: BV8150000  
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

## 12. ECOLOGICAL INFORMATION

12.1 Toxicity  
Toxicity to fish semi-static test LC50 - Danio rerio (zebra fish) - 8,609 mg/l - 96 h  
(OECD Test Guideline 203)  
Toxicity to daphnia and  
other aquatic  
invertebrates  
static test EC50 - Daphnia magna (Water flea) - 21,4 mg/l - 48 h  
(OECD Test Guideline 202)  
Toxicity to algae static test EC50 - Pseudokirchneriella subcapitata - 8,2 mg/l - 72 h  
(OECD Test Guideline 201)  
Toxicity to bacteria Growth inhibition EC10 - Pseudomonas putida -  $\geq$  49,5 mg/l - 16 h  
(DIN 38 412 Part 8)  
12.2 Persistence and degradability  
Biodegradability aerobic - Exposure time 29 d  
Result: 79 % - Readily biodegradable.  
(OECD Test Guideline 301B)  
12.3 Bioaccumulative potential  
12.4 Mobility in soil  
12.5 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  
12.6 Other adverse effects  
Toxic to aquatic life

## 13. DISPOSAL CONSIDERATIONS

### 13.1 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

## 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

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!