# Safety Data Sheet

**#90028161** · Full 16-section SDS

According to Regulation (EC) No 1907/2006
According to Regulation (EC) No 2020/878

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| PRODUCT | CAS NUMBER | FORMULA | VERSION | REVISION DATE |
|---|---|---|---|---|
| **Chlorhexidine** | **55-56-1** | **C22H30Cl2N10** | **10** | **16 Jul 2026** |

SECTION 1

## Identification

| | |
|---|---|
| **Product name** | Chlorhexidine |
| **CAS number** | 55-56-1 |
| **Chemical formula** | C22H30Cl2N10 |
| **Molecular weight** | 505.45 |
| **SMILES** | ClC1=CC=C(C=C1)NC(=N)NC(=N)NCCCCCCNC(=N)NC(=N)NC2=CC=C(Cl)C=C2 |
| **EC / EINECS number** | 200-238-7 |
| **Recommended use & restrictions** | broad-spectrum antimicrobial agent used as a topical antiseptic, disinfectant, and preservative in various applications, including medical, dental, and cosmetic products. |
| **Emergency telephone** | **0344 892 0111** — National Poisons Information Service (NPIS) (United Kingdom — for healthcare professionals (via TOXBASE)) |

SECTION 2

## Hazard identification

**DANGER**

| CODE | HAZARD STATEMENT |
|---|---|
| H318 | Causes serious eye damage |
| H410 | Very toxic to aquatic life with long lasting effects |

| CODE | PRECAUTIONARY STATEMENT |
|---|---|
| P264 | Wash thoroughly after handling |
| P273 | Avoid release to the environment |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection |
| P305+P351+P338 | IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do, continue rinsing |
| P391 | Collect spillage |
| P501 | Dispose of contents/container to an approved waste disposal plant |

**Other hazards (e.g. PBT / vPvB, not classified)** *Not applicable*

SECTION 3

## Composition / information on ingredients

**Purity / concentration** 100%

**Impurities / stabilising additives** *Not applicable*

SECTION 4

## First-aid measures

**Inhalation** Remove person to fresh air and keep comfortable for breathing. In case of persistent throat irritation or coughing: seek medical attention.

**Skin contact** Rinse skin with water. If skin irritation or rash occurs: get medical advice/attention.

**Eye contact** Remove contact lenses if present. Rinse eyes with water. If eye irritation persists: get medical advice/attention.

**Ingestion** After swallowing: make victim drink water (two glasses at most), avoid vomiting (risk of
perforation). Call a physician immediately. Do not attempt to neutralise.

**Symptoms / effects & medical attention** *Not applicable*

SECTION 5

## Fire-fighting measures

| | |
|---|---|
| **Suitable extinguishing media** | Foam, carbon dioxide, dry powder or water fog |
| **Unsuitable extinguishing media** | None known |
| **Special hazards** | Carbon oxides<br>Nitrogen oxides (NOx)<br>Hydrogen chloride gas<br>Combustible.<br>Development of hazardous combustion gases or vapours possible in the event of fire. |
| **Advice for firefighters** | In the event of fire, wear self-contained breathing apparatus.<br>Suppress (knock down) gases/vapours/mists with a water spray jet.<br>Prevent fire extinguishing water from contaminating surface water or the ground water system. |

SECTION 6

## Accidental release measures

| | |
|---|---|
| **Personal precautions & PPE** | Avoid breathing dust/fume/gas/mist/vapours/spray. Provide adequate ventilation. For personal protection, see section 8. |
| **Environmental precautions** | Avoid discharge into drains, water courses or onto the ground. |
| **Containment & clean-up methods** | Absorb spillage with a suitable absorbent material. |

*For specific precautions, see Section 8 and Section 13.*

SECTION 7

## Handling & storage

| | |
|---|---|
| **Storage temperature** | Ambient |
| **Precautions for safe handling** | Wear protective clothing, gloves, eye and face protection. Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapours/spray. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Wash hands before breaks and after work. Wear suitable gloves and eye/face protection. Wash hands before breaks and immediately after handling the product |
| **Conditions for safe storage (incompatibilities)** | *No data available* |

SECTION 8

## Exposure controls / personal protection

| | |
|---|---|
| **Occupational exposure limits (OEL / WEL)** | *Not applicable* |
| **DNEC/PNEC data** | *Not applicable* |
| **Eye / face protection** | Safety glasses<br>Wear eye/face protection as recommended. All eye/face protection should comply with EN ISO 16321-1:2022. |
| **Skin / hand protection** | Nitrile gloves Thickness: 0.11mm. Breakthrough time: 480mins. |
| **Respiratory protection** | Self-contained breathing apparatus<br>Keep self-contained breathing apparatus readily available for emergency use. Provide adequate ventilation. If ventilation is insufficient, suitable respiratory protection must be provided. Respiratory equipment: Reusable Air-Purifying Respirator (APR). Filter type: ABEK. Standard: EN 14387. |

SECTION 9

## Physical & chemical properties

| | |
|---|---|
| **Density (g/mL)** | *Not applicable* |
| **Flash point** | *Not applicable* |
| **Acidity** | Neutral<br>DERIVED FROM: LITERATURE |
| **Appearance / physical state** | Solid<br>DERIVED FROM: LITERATURE |
| **Colour** | White to off-white<br>DERIVED FROM: LITERATURE |
| **Odour** | Not known<br>DERIVED FROM: LITERATURE |
| **Melting / freezing point** | 134-136 °C<br>DERIVED FROM: LITERATURE |
| **Boiling point** | 641.45 °C (rough estimate).<br>DERIVED FROM: LITERATURE |
| **Solubility (water)** | 0.08% at 20 °C, 0.08 g/100 mL (20 °C), 0.8 g/L at 20 °C.<br>DERIVED FROM: LITERATURE |
| **pH** | No data available.<br>DERIVED FROM: LITERATURE |
| **Vapour pressure** | No data available.<br>DERIVED FROM: LITERATURE |
| **Partition coefficient (log Pow)** | *Not applicable* |
| **Auto-ignition / decomposition temp** | *Not applicable* |

SECTION 10

## Stability & reactivity

| | |
|---|---|
| **Chemical stability / reactivity** | *Not applicable* |
| **Conditions to avoid** | *Not applicable* |
| **Incompatible materials** | Strong oxidising agents |
| **Hazardous decomposition products** | See section 5 |

SECTION 11

## Toxicological information

| | |
|---|---|
| **Acute toxicity (LD50 / LC50)** | LD50 Oral - Rat - male and female - 2515 mg/kg (lit.)<br>LD50 Dermal - Rabbit - male and female - > 2,815 mg/kg (External MSDS) |
| **Skin corrosion / irritation** | *No data available* |
| **Eye corrosion / irritation** | Causes serious eye damage |
| **Respiratory / skin sensitisation** | *No data available* |
| **Carcinogenicity** | Test Type: Mutagenicity (mammal cell test): chromosome aberration.<br>Result: negative<br>Remarks: (Lit.) |
| **Mutagenicity** | *Not applicable* |
| **Reproductive toxicity** | *Not applicable* |
| **STOT (single / repeated exposure)** | *Not applicable* |
| **Aspiration hazard** | *Not applicable* |
| **Endocrine disruptors** | *Not applicable* |

SECTION 12

## Ecological information

| | |
|---|---|
| **Aquatic toxicity** | semi-static test LC50 - Danio rerio (zebra fish) - 1.4 mg/l - 96 h (OECD Test Guideline 203) (External MSDS)<br>EC50 = Daphnia magna 0.063 mg/l, 48h (External MSDS) |
| **Persistence & degradability** | Biodegradability: aerobic - Exposure time 28 d Result: 0 % - Not readily biodegradable.(OECD Test Guideline 301D)<br>Chemical Oxygen Demand (COD): 110 mg/g Remarks: (IUCLID) |
| **Bioaccumulative potential** | *Not applicable* |
| **Mobility in soil** | *Not applicable* |
| **PBT / vPvB assessment** | *Not applicable* |

SECTION 13

## Disposal considerations

| | |
|---|---|
| **Waste treatment / disposal methods** | Dispose of in accordance with local/national regulations |

SECTION 14

## Transport information

| | |
|---|---|
| **UN number** | UN3077 |
| **Proper shipping name** | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. |
| **Class** | 9 |
| **Packing group** | III |
| **Transport category** | 3 |
| **Tunnel code** | – |
| **Packing instruction (ADR)** | P002 |
| **Packing instruction (IMDG)** | P002 |
| **Environmental hazards** | *Not applicable* |
| **Special precautions for user** | *Not applicable* |


SECTION 15

## Regulatory information

| | |
|---|---|
| **REACH code** | Y110 |
| **UFI code** | *Not applicable* |
| **ECHA notification** | *Not applicable* |
| **Chemical safety assessment carried out?** | *Not applicable* |

SECTION 16

## Other information

| | |
|---|---|
| **Revision notes / other information** | *Not applicable* |

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