

## SAFETY DATA SHEET

Version 8.2  
Revision Date 09/16/2020  
Print Date 05/28/2022

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifiers**

Product name : Propanil

Product Number : 45639  
Brand : Sigma-Aldrich  
Index-No. : 616-009-00-3  
CAS-No. : 709-98-8

**1.2 Relevant identified uses of the substance or mixture and uses advised against**

Identified uses : Laboratory chemicals, Synthesis of substances

**1.3 Details of the supplier of the safety data sheet**

Company : Sigma-Aldrich Inc.  
3050 SPRUCE ST  
ST. LOUIS MO 63103  
UNITED STATES

Telephone : +1 314 771-5765  
Fax : +1 800 325-5052

**1.4 Emergency telephone**

Emergency Phone # : 800-424-9300 CHEMTREC (USA) +1-703-  
527-3887 CHEMTREC (International) 24  
Hours/day; 7 Days/week

**SECTION 2: Hazards identification****2.1 Classification of the substance or mixture****GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)**

Acute toxicity, Oral (Category 4), H302

Short-term (acute) aquatic hazard (Category 1), H400

For the full text of the H-Statements mentioned in this Section, see Section 16.

**2.2 GHS Label elements, including precautionary statements**

Pictogram



Signal word

Warning

Hazard statement(s)

H302

H400

Harmful if swallowed.

Very toxic to aquatic life.

|                            |                                                                             |
|----------------------------|-----------------------------------------------------------------------------|
| Precautionary statement(s) |                                                                             |
| P264                       | Wash skin thoroughly after handling.                                        |
| P270                       | Do not eat, drink or smoke when using this product.                         |
| P273                       | Avoid release to the environment.                                           |
| P301 + P312 + P330         | IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. Rinse mouth. |
| P391                       | Collect spillage.                                                           |
| P501                       | Dispose of contents/ container to an approved waste disposal plant.         |

## 2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

|                  |                                                    |
|------------------|----------------------------------------------------|
| Synonyms         | : 3',4'-Dichloropropionanilide                     |
| Formula          | : C <sub>9</sub> H <sub>9</sub> Cl <sub>2</sub> NO |
| Molecular weight | : 218.08 g/mol                                     |
| CAS-No.          | : 709-98-8                                         |
| EC-No.           | : 211-914-6                                        |
| Index-No.        | : 616-009-00-3                                     |

| Component       | Classification                                                            | Concentration |
|-----------------|---------------------------------------------------------------------------|---------------|
| <b>Surcopur</b> |                                                                           |               |
|                 | Acute Tox. 4; Aquatic Acute 1; H302, H400<br>M-Factor - Aquatic Acute: 10 | <= 100 %      |

For the full text of the H-Statements mentioned in this Section, see Section 16.

## SECTION 4: First aid measures

### 4.1 Description of first-aid measures

#### General advice

Consult a physician. Show this material safety data sheet to the doctor in attendance. Move out of dangerous area.

#### 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

---

### **SECTION 5: Firefighting 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, Nitrogen oxides (NO<sub>x</sub>), Hydrogen chloride gas

#### **5.3 Advice for firefighters**

Wear self-contained breathing apparatus for firefighting if necessary.

#### **5.4 Further information**

No data available

---

### **SECTION 6: Accidental release measures**

#### **6.1 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.

#### **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.

---

### **SECTION 7: Handling and storage**

#### **7.1 Precautions for safe handling**

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs.

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**

Keep container tightly closed in a dry and well-ventilated place.

Storage class (TRGS 510): 11: Combustible Solids

### 7.3 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

### 8.1 Control parameters

#### Ingredients with workplace control parameters

Contains no substances with occupational exposure limit values.

### 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

For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. 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.

---

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

- |                                 |                                                |
|---------------------------------|------------------------------------------------|
| a) Appearance                   | Form: solid<br>Color: colorless                |
| b) Odor                         | No data available                              |
| c) Odor Threshold               | No data available                              |
| d) pH                           | No data available                              |
| e) Melting point/freezing point | Melting point/range: 92 - 93 °C (198 - 199 °F) |
| f) Initial boiling point        | No data available                              |

and boiling range

- |                                                 |                                          |
|-------------------------------------------------|------------------------------------------|
| g) Flash point                                  | > 100 °C (> 212 °F)                      |
| h) Evaporation rate                             | No data available                        |
| i) Flammability (solid, gas)                    | No data available                        |
| j) Upper/lower flammability or explosive limits | No data available                        |
| k) Vapor pressure                               | 0.000 hPa at 60 °C (140 °F)              |
| l) Vapor density                                | No data available                        |
| m) Relative density                             | 1.250 g/cm <sup>3</sup> at 25 °C (77 °F) |
| n) Water solubility                             | insoluble                                |
| o) Partition coefficient: n-octanol/water       | log Pow: 3.12                            |
| p) Autoignition 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

---

## SECTION 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, Nitrogen oxides (NO<sub>x</sub>), Hydrogen chloride gas

Other decomposition products - No data available

In the event of fire: see section 5

---

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

LD50 Oral - Rat - 367 mg/kg

Remarks: (RTECS)

Inhalation: No data available

LD50 Dermal - Rabbit - 4,830 mg/kg

Remarks: (RTECS)

No data available

#### 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

IARC: No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

NTP: No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

#### 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

#### Additional Information

RTECS: Not available

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

---

## SECTION 12: Ecological information

### 12.1 Toxicity

|                                       |                                                                                   |
|---------------------------------------|-----------------------------------------------------------------------------------|
| Toxicity to daphnia and other aquatic | EC50 - Daphnia magna (Water flea) - 1.2 mg/l - 48 h<br>Remarks: (ECOTOX Database) |
|---------------------------------------|-----------------------------------------------------------------------------------|

invertebrates

Toxicity to algae      mortality NOEC - Chlamydomonas moewusii - 4.36 mg/l - 7 d  
Remarks: (ECOTOX Database)

mortality LOEC - Chlamydomonas moewusii - 6.54 mg/l - 7 d  
Remarks: (ECOTOX Database)

## 12.2 Persistence and degradability

Biodegradability      Result: - Readily biodegradable.  
Remarks: Readily biodegradable.

## 12.3 Bioaccumulative potential

Bioaccumulation      Osteichthyes - 10 d  
- 200 µg/l(Surcopur)

Bioconcentration factor (BCF): 10 - 15

## 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

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.  
Very toxic to aquatic life.  
No data available

---

## SECTION 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 chemical incinerator equipped with an afterburner and scrubber.

#### Contaminated packaging

Dispose of as unused product.

---

## SECTION 14: Transport information

### DOT (US)

Not dangerous goods

### IMDG

UN number: 3077    Class: 9    Packing group: III    EMS-No: F-A, S-F  
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.  
(Surcopur)  
Marine pollutant : yes

### IATA

UN number: 3077    Class: 9    Packing group: III  
Proper shipping name: Environmentally hazardous substance, solid, n.o.s. (Surcopur)  
**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.

---

## SECTION 15: Regulatory information

### SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

### SARA 313 Components

The following components are subject to reporting levels established by SARA Title III, Section 313:

|          | CAS-No.  | Revision Date |
|----------|----------|---------------|
| Surcopur | 709-98-8 | 2007-07-01    |

### SARA 311/312 Hazards

Acute Health Hazard

### Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

No components are subject to the Massachusetts Right to Know Act.

### Pennsylvania Right To Know Components

|          | CAS-No.  | Revision Date |
|----------|----------|---------------|
| Surcopur | 709-98-8 | 2007-07-01    |

|          | CAS-No.  | Revision Date |
|----------|----------|---------------|
| Surcopur | 709-98-8 | 2007-07-01    |

### New Jersey Right To Know Components

|          | CAS-No.  | Revision Date |
|----------|----------|---------------|
| Surcopur | 709-98-8 | 2007-07-01    |

---

## SECTION 16: Other information

### Further information

Copyright 2020 Sigma-Aldrich Co. LLC. License granted to make unlimited paper copies for internal use only.

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. Sigma-Aldrich Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See [www.sigma-aldrich.com](http://www.sigma-aldrich.com) and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.

The branding on the header and/or footer of this document may temporarily not visually match the product purchased as we transition our branding. However, all of the information in the document regarding the product remains unchanged and matches the product ordered. For further information please contact [mlsbranding@sial.com](mailto:mlsbranding@sial.com).

Version: 8.2

Revision Date: 09/16/2020

Print Date: 05/28/2022