

# • SAFETY DATA SHEET

Version 6.8  
Revision Date 11/06/2025  
Print Date 11/07/2025

## SECTION 1. IDENTIFICATION

### 1.1 Product identifiers

Product name : Clomazone  
Product Number : 46120  
Brand : Sigma  
Index-No. : 613-340-00-5  
CAS-No. : 81777-89-1

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

Identified uses : Laboratory chemicals, Synthesis of substances  
Uses advised against : The product is being supplied under the TSCA R&D Exemption (40 CFR Section 720.36). It is the recipient's responsibility to comply with the requirements of the R&D exemption. The product may not be used for a non-exempt commercial purpose under TSCA unless appropriate consent is granted in writing by MilliporeSigma.

### 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 number

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

---

## SECTION 2. HAZARDS IDENTIFICATION

### GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

#### Hazards for the product as supplied

Acute toxicity (Oral) : Category 4

Acute toxicity (Inhalation) : Category 4


Short-term (acute) aquatic hazard : Category 1

Long-term (chronic) aquatic hazard : Category 1

### Other hazards

None known.

### GHS label elements

Hazard pictograms : 

Signal word : Warning

Hazard statements : H302 + H332 Harmful if swallowed or if inhaled.  
H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements : **Prevention:**  
P261 Avoid breathing mist or vapours.  
P264 Wash skin thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.  
P271 Use only outdoors or in a well-ventilated area.  
P273 Avoid release to the environment.

#### **Response:**

P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. Rinse mouth.

P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell.

P391 Collect spillage.

#### **Disposal:**

P501 Dispose of contents/ container to an approved waste disposal plant.

---

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Substance

CAS-No. : 81777-89-1

### Components

Sigma - 46120

Page 2 of 13

| Chemical name | CAS No./Unique ID | Concentration (% w/w) | Trade secret |
|---------------|-------------------|-----------------------|--------------|
| Clomazone     | 81777-89-1*       | >= 90 - <= 100        | -            |

\* Indicates that the identifier is a CAS No.  
Actual concentration is withheld as a trade secret

---

#### SECTION 4. FIRST AID MEASURES

- General advice : Show this safety data sheet to the doctor in attendance.
- If inhaled : After inhalation: fresh air. If breathing stops: mouth-to-mouth breathing or artificial respiration. Oxygen if necessary. Immediately call in physician.
- In case of skin contact : In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.
- In case of eye contact : After eye contact: rinse out with plenty of water. Remove contact lenses.
- If swallowed : After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.
- 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
- Protection of first-aiders : For personal protection see section 8.
- Notes to physician : No data available

---

#### SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Water  
Foam  
Carbon dioxide (CO<sub>2</sub>)  
Dry powder
- Unsuitable extinguishing media : For this substance/mixture no limitations of extinguishing agents are given.
- Specific hazards during fire fighting : Combustible.

Vapours are heavier than air and may spread along floors.

Forms explosive mixtures with air on intense heating.

Development of hazardous combustion gases or vapours possible in the event of fire.

|  |  |
|--|--|
| Hazardous combustion products                  | : Carbon oxides<br><br>Nitrogen oxides (NOx)<br><br>Hydrogen chloride gas  |
| Specific extinguishing methods                 | : No data available  |
| Further information                            | : 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. |
| Special protective equipment for fire-fighters | : In the event of fire, wear self-contained breathing apparatus.   |

---

## SECTION 6. ACCIDENTAL RELEASE MEASURES

|   |  |
|---|--|
| Personal precautions, protective equipment and emergency procedures | : Advice for non-emergency personnel:<br>Do not breathe vapours, aerosols.<br>Avoid substance contact.<br>Ensure adequate ventilation.<br>Evacuate the danger area, observe emergency procedures, consult an expert.<br>Advice for emergency responders:<br>For personal protection see section 8. |
| Environmental precautions   | : Do not let product enter drains.   |
| Methods and materials   | : Cover drains. Collect, bind, and pump off spills.  |

for containment and cleaning up

Observe possible material restrictions (see sections 7 and 10).  
Take up with liquid-absorbent material (e.g. Chemisorb® ). Dispose of properly. Clean up affected area.

---

## SECTION 7. HANDLING AND STORAGE

For precautions see section 2.2.

Advice on safe handling : Work under hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols.

Further information on storage conditions : Tightly closed.

Storage class : 10, Combustible liquids

Recommended storage temperature : 36 - 46 °F / 2 - 8 °C

---

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Ingredients with workplace control parameters

Contains no substances with occupational exposure limit values.

**Engineering measures** : No data available

### Personal protective equipment

Respiratory protection : required when vapours/aerosols are generated.

Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

Recommended Filter type: : Filter type ABEK

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

Hand protection

Remarks : required

Sigma - 46120

Page 5 of 13

- Eye protection : Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).  
Safety glasses
- Skin and body protection : protective clothing
- Hygiene measures : Change contaminated clothing. Preventive skin protection recommended. Wash hands after working with substance.

---

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance : liquid
- Color : colourless
- Odor : No data available
- Odor Threshold : No data available  
pH : No data available
- Melting point : No data available
- Boiling point/boiling range : 527 °F / 275 °C (1,013 hPa)
- Flash point : 315 °F / 157 °C
- Evaporation rate : No data available
- Flammability (solid, gas) : No data available
- Flammability (liquids) : No data available
- Burning rate : No data available
- Upper explosion limit /  
Upper flammability limit : No data available
- Lower explosion limit /  
Lower flammability limit : No data available
- Vapor pressure : < 0.001 hPa (77 °F / 25 °C)
- Relative vapour density : No data available

|  |   |
|--|---|
| Relative density                       | : No data available                       |
| Density                                | : 1.192 g/cm <sup>3</sup> (68 °F / 20 °C) |
| Solubility(ies)                        |   |
| Water solubility                       | : insoluble                               |
| Partition coefficient: n-octanol/water | : log Pow: 2.54                           |
| Autoignition temperature               | : No data available                       |
| Decomposition temperature              | : No data available                       |
| Viscosity, dynamic                     | : No data available                       |
| Viscosity, kinematic                   | : No data available                       |
| Flow time                              | : No data available                       |
| Explosive properties                   | : No data available                       |
| Oxidizing properties                   | : No data available                       |
| Molecular weight                       | : 239.70 g/mol                            |
| Particle characteristics               |   |
| Particle size                          | : No data available                       |

---

## SECTION 10. STABILITY AND REACTIVITY

|                                    |   |
|------------------------------------|---|
| Reactivity                         | : Forms explosive mixtures with air on intense heating.<br><br>A range from approx. 15 Kelvin below the flash point is to be rated as critical. |
| Chemical stability                 | : The product is chemically stable under standard ambient conditions (room temperature) .   |
| Possibility of hazardous reactions | : No data available   |
| Conditions to avoid                | : Strong heating.   |
| Incompatible materials             | : Strong oxidizing agents   |
| Hazardous decomposition products   | : In the event of fire: see section 5   |

---

## SECTION 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

#### Acute toxicity

LD50 Oral - Rat - 1,369 mg/kg

Remarks: (RTECS)

LC50 Inhalation - Rat - 4 h - 4.8 mg/l - aerosol

(OECD Test Guideline 403)

LD50 Dermal - Rabbit - > 2,000 mg/kg

(OECD Test Guideline 402)

No data available

#### Skin corrosion/irritation

Skin - Rabbit

Result: slight irritation

(OECD Test Guideline 404)

#### Serious eye damage/eye irritation

Eyes - Rabbit

Result: slight irritation

(OECD Test Guideline 405)

#### Respiratory or skin sensitization

Maximisation Test - Guinea pig

Result: negative

(OECD Test Guideline 406)

#### Germ cell mutagenicity

No data available

Test Type: Ames test

Test system: Salmonella typhimurium

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 471

Result: negative

#### Carcinogenicity

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.

NTP: No component 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

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

**11.2 Additional Information**

RTECS: NY2977000

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

---

**SECTION 12. ECOLOGICAL INFORMATION****Ecotoxicity****Components:****Clomazone:****Ecotoxicology Assessment**

Acute aquatic toxicity : Very toxic to aquatic life.

Chronic aquatic toxicity : Very toxic to aquatic life with long lasting effects.

**Persistence and degradability****Components:****Clomazone:**Biodegradability : aerobic  
Result: Not readily biodegradable.  
Biodegradation: 14 %  
Exposure time: 28 d  
Method: OECD Test Guideline 301**Bioaccumulative potential****Components:****Clomazone:**

Bioaccumulation : Remarks: No data available

Partition coefficient: n- : log Pow: 2.54  
octanol/water**Mobility in soil****Components:****Clomazone:**

Stability in soil : Remarks: No data available

## Other adverse effects

### Components:

#### **Clomazone:**

Additional ecological information : Avoid release to the environment.

No data available

---

## SECTION 13. DISPOSAL CONSIDERATIONS

### **Disposal methods**

Waste from residues : Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself.

---

## SECTION 14. TRANSPORT INFORMATION

### **International Regulations**

#### **IATA-DGR**

UN/ID No. : UN 3082  
Proper shipping name : Environmentally hazardous substance, liquid, n.o.s. (Clomazone)  
Class : 9  
Packing group : III  
Labels : Class 9 - Miscellaneous dangerous substances and articles  
Packing instruction (cargo aircraft) : 964  
Packing instruction (passenger aircraft) : 964

#### **IMDG-Code**

UN number : UN 3082  
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Clomazone)  
Class : 9  
Packing group : III  
Labels : 9  
EmS Code : F-A, S-F  
Marine pollutant : yes

### **Transport in bulk according to IMO instruments**

Not applicable for product as supplied.

### **National Regulations**

#### **49 CFR Road**

Sigma - 46120

Page 10 of 13

Not regulated as a dangerous good

Poison Inhalation Hazard : No

### Special precautions for user

Remarks : 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. Packages smaller than or equal to 5 kg / L , not dangerous goods of Class 9

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

---

## SECTION 15. REGULATORY INFORMATION

### CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

### SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

### SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

**SARA 311/312 Hazards** : Acute Health Hazard

**SARA 313** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

### US State Regulations

#### Massachusetts Right To Know

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

#### Maine Chemicals of High Concern

Product does not contain any listed chemicals

#### Vermont Chemicals of High Concern

Product does not contain any listed chemicals

#### Washington Chemicals of High Concern

Product does not contain any listed chemicals

### The components of this product are reported in the following inventories:

TSCA : Product contains substance(s) not listed on TSCA inventory.

## **TSCA list**

No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

---

## **SECTION 16. OTHER INFORMATION**

### **Full text of other abbreviations**

AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); EC<sub>x</sub> - Concentration associated with x% response; EHS - Extremely Hazardous Substance; EL<sub>x</sub> - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErC<sub>x</sub> - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonised System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC<sub>50</sub> - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organisation; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardisation; KECI - Korea Existing Chemicals Inventory; LC<sub>50</sub> - Lethal Concentration to 50 % of a test population; LD<sub>50</sub> - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organisation for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

The information is believed to be correct but is not exhaustive and will be used solely as a guideline, which is based on current knowledge of the chemical substance or mixture and is applicable to appropriate safety precautions for the product. 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.  
Copyright 2025 Sigma-Aldrich Co. LLC. License granted to make unlimited paper copies for internal use only.

Revision Date : 11/06/2025

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).

US / EN