Preparing for the New Era of Laboratories

MATERIAL SAFETY DATA SHEET (MSDS)

According to regulation (EU) no.1907/2006

CHLOROACETIC ACID 99.5% AR

PRODUCT CODE : O-5236

CAS No : 79-11-8

FORMULA : $CH_2Cl.COOH$

UN No : 1751

MATERIAL SAFETY DATA SHEET (SDS/MSDS)
CHLOROACETIC ACID 99.5% AR

MSDS Number : 0430 | Date : March 20th, 2025 | Version : 1.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product Name : **CHLOROACETIC ACID 99.5% AR**
Synonyms : Monochloroacetic acid
CAS No. : 79-11-8
HS Code : 2915 40 10
Chemical Formula : $CH_2Cl.COOH$
Molecular Weight : 94,50 g/mol
Product Code : O-5236
Brand : Labotiq
1.2 Manufacturer : Labotiq
Address : Jl.Terapi Raya AD2-Bumi Menteng Asri Bogor, Jawa Barat Indonesia – 16111
Website : www.labotiq.net
Email : labotiq.id@gmail.com,
For information : Phone : (+62-251) 839110, 8311662, Fax : (+62-251) 83135710
Emergency number : +6281316894650
1.3 Application : Laboratory chemicals, Manufacture of substances, General Chemical reagent

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Acute toxicity, (Category 3)	H301: Toxic if swallowed.
Acute toxicity, (Category 3)	H331: Toxic if inhaled.
Acute toxicity, (Category 3)	H311: Toxic in contact with skin.
Skin corrosion, (Sub-category 1B)	H314: Causes severe skin burns and eye damage.
Serious eye damage, (Category 1)	H318: Causes serious eye damage.
Specific target organ toxicity – single exposure, (Category 3), Respiratory system	H335: May cause respiratory irritation.
Short-term (acute) aquatic hazard, (Category 1)	H400: Very toxic to aquatic life.

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

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008

Pictogram

Signal word	Danger
Hazard statement(s)	
H301 + H311 + H331	Toxic if swallowed, in contact with skin or if inhaled.
H314	Causes severe skin burns and eye damage.

H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
Precautionary statement(s)	
P260	Do not breathe dust.
P273	Avoid release to the environment.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
P304 + P340 + P310	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.
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
Reduced Labeling (<= 125 ml)	
Pictogram	
Signal Word	Danger
Hazard Statements	
H314	Causes severe skin burns and eye damage.
H301 + H311 + H331	Toxic if swallowed, in contact with skin or if inhaled.
Precautionary Statements	
P260	Do not breathe dust.
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P304 + P340 + P310	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.
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

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.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. Rapidly absorbed through skin.

SECTION 3: Composition/information on ingredients

3.1 Substances

Synonyms	: Monochloroacetic acid
Formula	: $CH_2Cl.COOH$
Molecular weight	: 94,50 g/mol
CAS-No.	: 79-11-8
EC-No.	: 201-178-4
Index-No.	: 607-003-00-1

3.2 Mixture

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

Component	Classification	Concentration
chloroacetic acid CAS-No. 79-11-8 EC-No. 201-178-4 Index-No. 607-003-00-1	Acute Tox. 3; Skin Corr. 1B; Eye Dam. 1; STOT SE 3; Aquatic Acute 1; H301, H331, H311, H314, H318, H335, H400 Concentration limits: >= 5 %: STOT SE 3, H335; 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

First aiders need to protect themselves. Show this material safety data sheet to the doctor in attendance.

If inhaled

After inhalation: fresh air. Immediately call in physician. If breathing stops: immediately apply artificial respiration, if necessary also oxygen.

In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Call a physician immediately.

In case of eye contact

After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist. Remove contact lenses.

If swallowed

If swallowed: give water to drink (two glasses at most). Seek medical advice immediately. In exceptional cases only, if medical care is not available within one hour, induce vomiting (only in persons who are wide awake and fully conscious), administer activated charcoal (20 - 40 g in a 10% slurry) and consult a doctor as quickly as possible. Do not attempt to neutralise.

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
Water Foam Carbon dioxide (CO2) Dry powder

Unsuitable extinguishing media
For this substance/mixture no limitations of extinguishing agents are given.

5.2 Special hazards arising from the substance or mixture
Carbon oxides, Hydrogen chloride gas, Combustible. Vapors 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.

5.3 Advice for firefighters
Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

5.4 Further information
Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Advice for non-emergency personnel: Avoid generation and inhalation of dusts in all circumstances. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.

6.2 Environmental precautions
Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up
Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up carefully. Dispose of properly. Clean up affected area. Avoid generation of dusts.

6.4 Reference to other sections
For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling
Advice on safe handling
Work under hood. Do not inhale substance/mixture.

Hygiene measures
Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance. For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions
Tightly closed. Dry. Keep in a well-ventilated place. Keep locked up or in an area accessible only to qualified or authorized persons.

Storage class
Storage class (TRGS 510): 6.1A: Combustible, acute toxic Cat. 1 and 2 / very toxic hazardous materials

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

8.2 Exposure controls

Appropriat engineering controls
Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

Personal protective equipment

Eye/face protection
Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Tightly fitting safety goggles

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.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Full contact
Material: Latex gloves
Minimum layer thickness: 0,6 mm
Break through time: 480 min
Material tested: Lapren® (KCL 706 / Aldrich Z677558, Size M)

Splash contact
Material: Nitrile rubber
Minimum layer thickness: 0,4 mm
Break through time: 30 min
Material tested: Camatril® (KCL 730 / Aldrich Z677442, Size M)

Body Protection
protective clothing

Respiratory protection
required when dusts 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 P3
The entrepeneur 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.

Control of environmental exposure
Do not let product enter drains.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	Form: crystalline Colour: white
Odour	No data available
Odour Threshold	Not applicable
pH	< 1,0 at 800 g/l at 20 °C (External MSDS)
Melting point/freezingpoint	Melting point/range: 60 - 63 °C - lit.
Initial boiling point and boiling range	189 °C - lit
Flash point	126 °C - closed cup
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability or explosive limits	Lower explosion limit: 8 %(V)
Vapour pressure	0,0213 hPa at 20 °C - OECD Test Guideline 104
Vapour density	No data available
Density	1,64 g/cm3 at 20 °C - OECD Test Guideline 109
Relative density	1,64 at 20 °C - OECD Test Guideline 109
Water solubility	1.000 g/l at 20 °C - OECD Test Guideline 105- miscible
Partition coefficient: noctanol/water	log Pow: 0,49 - OECD Test Guideline 107 – Bioaccumulation is not expected.
Auto-ignition temperature	475 °C at > 1.011,9 - < 1.022 hPa - DIN 51794
Decomposition temperature	No data available
Viscosity	No data available
Explosive properties	No data available
Oxidizing properties	none

9.2 Other safety information

Surface tension	73,1 mN/m at 20 °C - OECD Test Guideline 115
Dissociation constant	2,8 at 20 °C - OECD Test Guideline 112

SECTION 10: Stability and reactivity

10.1 Reactivity

Forms explosive mixtures with air on intense heating. A range from approx. 15 Kelvin below the flash point is to be rated as critical. The following applies in general to flammable organic substances and mixtures: in correspondingly fine distribution, when whirled up a dust explosion potential may generally be assumed.

10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

10.3 Possibility of hazardous reactions

Generates dangerous gases or fumes in contact with:
sodium carbonate, calcium carbonate, Potassium carbonate, Sulfides, Metals
Exothermic reaction with:
Amines, bases, Reducing agents, Strong oxidizing agents, Sulfides, hydrogen peroxide
Risk of explosion with:
furfuryl alcohol, hydrogen peroxide

10.4 Conditions to avoid

Strong heating.

10.5 Incompatible materials

No data available

10.6 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 - female - 90,4 mg/kg (OECD Test Guideline 401)
Acute toxicity estimate Oral - 90,4 mg/kg (Calculation method)
LC50 Inhalation - Rat - male and female - 4 h - > 1,268 mg/l - dust/mist

(OECD Test Guideline 403)
Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)
LD50 Dermal - Rat - female - 305 mg/kg (OECD Test Guideline 402)
Acute toxicity estimate Dermal - 305 mg/kg (Calculation method)

Skin corrosion/irritation

Skin - Rabbit
Result: Corrosive - 24 h
Remarks: (ECHA)

Serious eye damage/eye irritation

Eyes - Rabbit
Result: Irreversible effects on the eye
Remarks: Causes serious eye damage. (ECHA)

Respiratory or skin sensitisation

Local lymph node assay (LLNA) - Mouse
Result: Not a skin sensitizer.
(OECD Test Guideline 429)

Germ cell mutagenicity

Test Type: Ames test
Test system: S. typhimurium
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative

Test Type: Chromosome aberration test in vitro
Test system: Chinese hamster ovary cells
Metabolic activation: with and without metabolic activation
Result: negative
Remarks: (ECHA)
Test Type: DNA binding study
Species: Mouse
Application Route: Oral
Result: negative
Remarks: (ECHA)

Carcinogenicity
No data available

Reproductive toxicity
No data available

Specific target organ toxicity - single exposure
Inhalation - May cause respiratory irritation. - Respiratory Tract

Specific target organ toxicity - repeated exposure
No data available

Aspiration hazard
No data available

Additional Information
Endocrine disrupting properties
Product:
Assessment :
The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. Repeated dose toxicity - Rat - male and female - Oral - 90 d - LOAEL (Lowest observed adverse effect level) - 30 mg/kg Remarks: Subchronic toxicity

RTECS: AF8575000
burning sensation, Cough, wheezing, laryngitis, Shortness of breath, spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., 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 fish
static test LC50 - Poecilia reticulata (guppy) - 369 mg/l - 96 h
Remarks: (ECHA)

Toxicity to daphnia and other aquatic invertebrates
static test EC50 - Daphnia magna (Water flea) - 74,2 mg/l - 48 h (OECD Test Guideline 202)

Toxicity to algae
static test ErC50 - Desmodesmus subspicatus (green algae) - 0,033 mg/l - 72 h
(OECD Test Guideline 201)
static test NOEC - Desmodesmus subspicatus (green algae) - 0,006 mg/l - 72 h
(OECD Test Guideline 201*)*

Toxicity to fish(Chronic toxicity)
semi-static test NOEC - Danio rerio (zebra fish) - < 25 mg/l - 35 d (OECD Test Guideline 210)

Toxicity to daphnia and other aquatic invertebrates(Chronic toxicity)
semi-static test NOEC - Daphnia magna (Water flea) - 32 mg/l - 21 d
Remarks: (ECHA)

12.2 Persistence and degradability
Biodegradability
aerobic - Exposure time 28 d
Result: 69 % - Readily biodegradable.
Remarks: (ECHA)

12.3 Bioaccumulative potential
No data available

12.4 Mobility in soil
No data available

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
No data available

Endocrine disrupting properties
Product:
Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 13: Disposal considerations

13.1 Waste treatment methods
Product
Burn in a chemical incinerator equipped with an afterburner and scrubber b highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging
Dispose of as unused product.

SECTION 14: Transport information

14.1 UN number
ADR/RID: 1751 IMDG: 1751 IATA: 1751

14.2 UN proper shipping name

ADR/RID: CHLOROACETIC ACID, SOLID
IMDG: CHLOROACETIC ACID, SOLID
IATA: Chloroacetic acid, solid

14.3 Transport hazard class(es)

ADR/RID: 6.1 (8) IMDG: 6.1 (8) IATA: 6.1 (8)

14.4 Packaging group

ADR/RID: II IMDG: II IATA: II

14.5 Environmental hazards

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

14.6 Special precautions for user

Further information

No data available

SECTION 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.

National legislation

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

H2 ACUTE TOXIC
E1 ENVIRONMENTAL HAZARDS

Other regulations

Observe work restrictions regarding maternity protection in accordance to Dir 92/85/EEC or stricter national regulations where applicable.

Take note of Dir 94/33/EC on the protection of young people at work.

15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out

SECTION 16: Other information

Full text of H-Statements referred to under sections 2 and 3.

H301 Toxic if swallowed.
H311 Toxic in contact with skin.
H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage.
H331 Toxic if inhaled.
H335 May cause respiratory irritation.
H400 Very toxic to aquatic life.

National Fire Protection Association (U.S.A.):

Health: 4
Flammability: 1
Reactivity: 1

Further 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. Labotiq shall not be held liable for any damage resulting from handling or from contact with the above product.

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