SAFETY DATA SHEET

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

1.1 Product identifiers

Product name	Dichloroacetic Acid 97%
CAS number	79-43-6
Synonyms	Dichloroethanoic Acid; 2,2-Dichloroacetic Acid; Dichloracetic Acid

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

Identified uses	Laboratory chemicals.

1.3 Details of the supplier of the safety data sheet

Company	Lab Alley, LLC 12501 Pauls Valley Road Austin, Texas 78737 U.S.A.
Telephone	512-668-9918
Fax	512-886-4008

1.4 Emergency telephone

Emergency Phone #	US & Canada: 1-800-535-5053	INFOTRAC
	International 1-352-323-3500	INFOTRAC

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Corrosive to Metals	Category 1
Acute Dermal Toxicity	Category 3
Skin Corrosion/Irritation	Category 1A
Serious Eye Damage/Eye Irritation	Category 1
Carcinogenicity	Category 2
Reproductive Toxicity	Category 1B
Effects on/via lactation	

Specific Target Organ Toxicity - (repeated exposure) Category 2
Target Organ - Respiratory system

2.2 GHS Label elements, including precautionary statements

Pictogram

Signal Word: Danger

Hazard statements:
May be corrosive to metals.
Toxic in contact with skin.
Causes severe skin burns and eye damage.
Suspected of causing cancer.
May damage fertility or the unborn child.
May cause harm to breast-fed children.
May cause damage to organs through prolonged or repeated exposure.

Precautionary statements:

Prevention: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Do not breathe dust/fume/gas/mist/vapors/spray. Avoid contact during pregnancy/while nursing. Wash face, hands, and any exposed skin thoroughly after handling. Do not eat, drink, or smoke when using this product. Use only outdoors or in a well-ventilated area. Keep only in original container. Wear respiratory protection.

Response: Immediately call a POISON CENTER or doctor/physician.

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.

IF ON SKIN (or hair): Take off all contaminated clothing immediately. Rinse skin with water/shower. Wash contaminated clothing before re-use.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

IF SWALLOWED: Rinse mouth. DO NOT induce vomiting.

Spills: Absorb spillage to prevent material damage.

Storage: Store locked up in a dry, well-ventilated place in a corrosive resistant polypropylene container with a resistant inliner. Keep container tightly closed.

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

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

Very toxic to aquatic life. Corrosive to the respiratory tract.

SECTION 3: Composition/information on ingredients

3.1 Components

Chemical name	Common name and synonyms	CAS number	Concentration
Dichloroacetic acid	Dichloroethanoic Acid; 2,2-Dichloroacetic Acid; Dichloracetic Acid	79-43-6	97%

SECTION 4: First aid measures

4.1 Description of first-aid measures

General advice

If inhaled If not breathing, give artificial respiration. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Remove to fresh air. Immediate medical attention is required.

In case of skin contact Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.

In case of eye contact Rinse immediately with plenty of water, including under eyelids, for at least 15 minutes. Seek medical advice.

If swallowed Do NOT induce vomiting. Call a physician or poison control center immediately.

4.2 Most important symptoms and effects, both acute and delayed

Causes burns by all exposure routes. Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Ingestion causes swelling, severe damage to delicate tissue, and danger of perforation.

4.3 Indication of any immediate medical attention and special treatment needed

Show this safety data sheet to the doctor in attendance. Immediate medical attention is required. Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media — Carbon dioxide, dry chemical, dry sand, alcohol-resistant foam.

Unsuitable extinguishing media — No information available.

5.2 Specific hazards arising from the substance or mixture

Thermal decomposition can lead to release of irritating gases and vapors. The product causes burns of eyes, skin, and mucous membranes. Do not allow run-off from fire-fighting to enter drains or water courses.
Hazardous Combustion Products: Carbon monoxide (CO), Carbon dioxide (CO2), Phosgene, Hydrogen chloride gas.

5.3 Special protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

5.4 Further information

Flash Point — > 112°C / > 233.6°F

Autoignition Temperature — 194°C / 381.2°F

Explosion limits

Upper — No data available.
Lower — No data available.

Sensitivity to Mechanical Impact — No information available.
Sensitivity to Static Discharge — No information available.

NFPA

Health	Flammability	Instability	Physical hazards
4	1	0	N/A

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

6.2 Environmental precautions

Do not flush into surface water or saniatry sewer system. Do not allow material to contaminate ground water system. Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained.

6.3 Methods and materials for containment and cleaning up

Soak up with inert absorbent material. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

See Section 2 for full list of hazard and precaution statements.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Precautions on safe handling

Wear personal protective equipment/face protection. Do not get in eyes, on skin, or on clothing. Use only under a chemical fume hood. Do not breathe mist/vapors/spray. Do not ingest. If swallowed, seek immediate medical assistance.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Keep in a dry, cool, and well-ventilated place. Keep container tightly closed. Store away from incompatible materials. To maintain product quality, store under an inert atmosphere.

Incompatibilities

Strong oxidizing agents, strong bases, strong reducing agents, metals.

SECTION 8: Exposure controls/personal protection

8.1 Occupational exposure limits

US. ACGIH Threshold Limit Values

Component	Type	Value
Dichloroacetic acid	TWA (Skin)	0.5 ppm

8.2 Exposure controls

Appropriate engineering controls

Use only under a chemical fume hood. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protective equipment

Eye/face protection
Wear appropriate protective eyeglasses or chemical safety goggles, as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN 166.

Skin protection
Wear appropriate protective gloves and clothing to prevent skin exposure.

Body Protection
Wear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory protection
Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Control of environmental exposure
No information available.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical State	Liquid
Appearance	Light yellow
Odor	Pungent
Odor Threshold	No information available
pH	1.2 129 g/l
Melting Point/Range	9-11°C / 48.2-51.8°F
Boiling Point/Range	194°C / 381.2°F @ 760 mmHg
Evaporation Rate	No information available
Flammability (solid)	Not applicable
Flammability or explosive limit	No data available
Upper	
Lower	
Vapor Pressure	1.3 mbar @ 44°C
Vapor Density	4.45
Density	1.56
Solubility	Soluble in water
Partition coefficient; n-octanol/water	No data available

Autoignition Temp	194°C / 381.2°F
Decomposition Temp	No information available
Viscosity	No information available
Molecular Formula	C2H2Cl2O2
Molecular Weight	128.94 g/mol
VOC Content(%)	No information available
Oxidizing properties	No information available

9.2 Other safety information
No other information.

SECTION 10: Stability and reactivity

10.1 Reactivity
No reactive hazards, based on information available.

10.2 Chemical stability
Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions
None under normal processing.

10.4 Conditions to avoid
Incompatible products, excess heat.

10.5 Incompatible materials
Strong oxidizing agents, strong bases, strong reducing agents, metals.

10.6 Hazardous decomposition products
Carbon monoxide (CO), Carbon dioxide (CO2), Phosgene, Hydrogen chloride gas.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Product Information, Component Information

Acute toxicity

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Dichloroacetic acid	2820 mg/kg (Rat)	510 mg/kg (Rat)	-

Skin corrosion/irritation
Causes severe burns by all exposure routes.

Serious eye damage/eye irritation
Causes severe burns by all exposure routes.

Respiratory or skin sensitization
Causes severe burns by all exposure routes.

Germ cell mutagenicity
No information available.

Carcinogenicity

Component	CAS	IARC	NTP	ACGIH	OSHA	Mexico
Dichloroacetic acid	79-43-6	Group 2B	Not listed	A3	X	A3

Specific target organ toxicity - single exposure
None known.

Specific target organ toxicity - repeated exposure
Respiratory system.

Reproductive toxicity
No information available.

Chronic effects
Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible performation of stomach or esophagus should be investigated. Ingestion causes severe swelling, severe damage to delicate tissue, and danger of perforation.

11.2 Additional Information
No information available.

SECTION 12: Ecological information

12.1 Toxicity
Very toxic to aquatic organisms. The product contains the following substances which are hazardous to the environment.

Product	Species	Test Results
Dichloroacetic acid	Water Flea	106-2600 mg/L 24h

12.2 Persistence and degradability
Persistence is unlikely.

12.3 Bio accumulative potential
No information available.

12.4 Mobility in soil
Likely mobile in the environment due to its water solubility (log Pow = 0.942).

12.5 Results of PBT and vPvB assessment
No information available.

12.6 Endocrine disrupting properties
No information available.

12.7 Other adverse effects
No information available.

SECTION 13: Disposal considerations

13.1 Waste Disposal Methods

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

SECTION 14: Transport information

DOT (US)

UN no.	UN1764
Proper shipping name	DICHLOROACETIC ACID
Hazard Class	8
Packaging Group	II

IMDG

UN no.	UN1764
Proper shipping name	DICHLOROACETIC ACID
Hazard Class	8
Packaging Group	II

IATA

UN no.	UN1764
Proper shipping name	DICHLOROACETIC ACID
Hazard Class	8
Packaging Group	II

SECTION 15: Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
Not applicable.

CERCLA Hazardous Substance List (40 CFR 302.4)
Not applicable.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous

See Section 2 for more information.

SARA 313 (TRI reporting)

Not applicable.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act

Not regulated.

FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace

Not listed.

US state regulations

US. Massachusetts RTK - Substance List

Not listed.

US. New Jersey Worker and Community Right-to-Know Act

Listed.

US. Pennsylvania Worker and Community Right-to-Know Law

Not listed.

California Proposition 65

Listed, Dichloroacetic acid (CAS# 79-43-6).

SECTION 16: Other information

Issue date: 09/10/2024

SECTION 17: Disclaimer

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.