

## SAFETY DATA SHEET

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

#### 1.1 Product identifiers

Product name Trichloroacetic Acid  
CAS number 76-03-9  
Synonyms TCA

#### 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)

Skin Corrosion/Irritation	Category 1A
Serious Eye Damage/Eye Irritation	Category 1
Carcinogenicity	Category 2
Specific Target Organ Toxicity (single exposure) Target Organ(s) - Respiratory system	Category 3

## 2.2 GHS Label elements, including precautionary statements

Pictogram	
Signal Word	Danger
Hazard statements	Causes severe skin burns and eye damage. May cause respiratory irritation. Suspected of causing cancer.
Precautionary statements	<p>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. Wash face, hands, and any exposed skin thoroughly after handling. Use only outdoors or in a well-ventilated area.</p> <p>Response: Immediately call a POISON CENTER or doctor/physician.</p> <p>IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.</p> <p>IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse.</p> <p>IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>IF SWALLOWED: Rinse mouth. DO NOT induce vomiting.</p> <p>Storage: Store locked up. Store in a well-ventilated place. Keep container tightly closed.</p> <p>Disposal: Dispose of contents/container to an approved waste disposal plant.</p>

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

Very toxic to aquatic life with long lasting effects.  
WARNING: Cancer - <https://www.p65warnings.ca.gov/>.

## SECTION 3: Composition/information on ingredients

### 3.1 Components

Chemical name	Common name and synonyms	CAS number	Concentration
Trichloroacetic acid	TCA	76-03-9	>99%

## SECTION 4: First aid measures

### 4.1 Description of first-aid measures

#### General advice

<b>If inhaled</b>	Remove to fresh air. 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. Call a physician or poison control center immediately. If not breathing, give artificial respiration.
<b>In case of skin contact</b>	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Call a physician immediately.
<b>In case of eye contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required. Keep eye wide open while rinsing.
<b>If swallowed</b>	Do NOT induce vomiting. Immediate medical attention is required. Never give anything by mouth to an unconscious person. Drink plenty of water.

### 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 severe swelling, severe damage to the delicate tissue, and danger of perforation.

### 4.3 Indication of any immediate medical attention and special treatment needed

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

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

<b>Suitable extinguishing media</b>	CO 2, dry chemical, dry sand, alcohol-resistant foam.
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<b>Unsuitable extinguishing media</b>	Dry chemical.
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### 5.2 Specific hazards arising from the substance or mixture

The product causes burns of eyes, skin, and mucous membranes. Do not allow run-off from fire-fighting to enter drains or water courses. Thermal decomposition can lead to release of irritating gases and vapors.

Hazardous Combustion Products: Chloroform. Carbon dioxide (CO<sub>2</sub>). 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.

### 5.4 Further information

**Flash Point** No information available.

**Autoignition Temperature** No information available.

#### 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
3	0	1	N/A

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment as required. Evacuate personnel to safe areas. Avoid contact with skin, eyes, or clothing.

### 6.2 Environmental precautions

Do not flush into surface water or sanitary 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

Sweep up and shovel into suitable containers for disposal. Avoid dust formation.

### 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

Use only under a chemical fume hood. Wear personal protective equipment/face protection. Do not get in eyes, on skin, or on clothing. Do not breathe dust. Do not ingest. If swallowed, then 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 containers tightly closed in a dry, cool, and well-ventilated place. Corrosives area.

### Incompatibilities

Strong oxidizing agents. Bases. Metals.

## SECTION 8: Exposure controls/personal protection

### 8.1 Occupational exposure limits

#### US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Component	Type	Value	
Trichloroacetic acid	(Vacated) TWA	1 ppm	7 mg/m <sup>3</sup>

#### US. ACGIH Threshold Limit Values

Component	Type	Value
Trichloroacetic acid	TWA	0.5 ppm

#### US. NIOSH: Pocket Guide to Chemical Hazards

Component	Type	Value	
Trichloroacetic acid	TWA	1 ppm	7 mg/m <sup>3</sup>

#### Biological occupational exposure limits

No information available.

### 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 EN166. Tight sealing safety goggles. Face protection shield.

#### **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.

Recommended Filter type: Particulates filter conforming to EN 143.

#### **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**

Physical State	Solid
Appearance	White
Odor	Vinegar
Odor Threshold	No information available
pH	1.2 (0.1M)
Melting Point/Range	52 - 58 °C / 125.6 - 136.4 °F
Boiling Point/Range	196 °C / 384.8 °F @ 760 mmHg
Evaporation Rate	Not applicable
Flammability (solid)	No information available
Flammability or explosive limit	No data available
Upper	
Lower	
Vapor Pressure	1.2 mbar @ 50°C, 0.08 mbar @ 25°C
Vapor Density	Not applicable
Density	No information available
Solubility	Soluble in water
Partition coefficient; n-octanol/water	No data available
Autoignition Temp	No information available
Decomposition Temp	No information available
Viscosity	Not applicable
Molecular Formula	C2 H Cl3 O2

Molecular Weight	163.39 g/mol
VOC Content(%)	No information available
Oxidizing properties	No information available

## 9.2 Other safety information

No information available.

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No information available.

### 10.2 Chemical stability

Hygroscopic.

### 10.3 Possibility of hazardous reactions

None under normal processing.

### 10.4 Conditions to avoid

Incompatible products. Excess heat. Exposure to moist air or water.

### 10.5 Incompatible materials

Strong oxidizing agents, Bases, Metals.

### 10.6 Hazardous decomposition products

Chloroform, Carbon dioxide (CO<sub>2</sub>), 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
Trichloroacetic acid	3320 mg/kg (Rat)	> 2000 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

No information available.

#### Germ cell mutagenicity

No information available.

### Carcinogenicity

Component	CAS	IARC	NTP	ACGIH	OSHA	Mexico
Trichloroacetic acid	76-03-9	Group 2B	Not listed	A3	X	A3

### Specific target organ toxicity - single exposure

Respiratory system.

### Specific target organ toxicity - repeated exposure

None known.

### Reproductive toxicity

No information available.

### Chronic effects

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

## 11.2 Additional Information

The toxicological properties have not been fully investigated.

## SECTION 12: Ecological information

### 12.1 Toxicity

Very toxic to aquatic organisms; may cause long-term adverse effects in the aquatic environment.

Product		Species	Test Results
Trichloroacetic acid	EC50	Freshwater Algae	0.27 mg/L
	LC50	Freshwater Fish	>277 mg/L
	EC50	Water Flea	110 mg/L

### 12.2 Persistence and degradability

Soluble in water. Persistence is unlikely based on information available.

### 12.3 Bio accumulative potential

No information available.

### 12.4 Mobility in soil

Will likely be mobile in the environment due to its water solubility.

### 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	UN1839
Proper Shipping Name	TRICHLOROACETIC ACID
Hazard Class	8
Packing Group	II

### IMDG

UN-no	UN1839
Proper Shipping Name	Trichloroacetic acid, solid
Hazard Class	8
Packing Group	II

### IATA

UN-no	UN1839
Proper Shipping Name	Trichloroacetic acid
Hazard Class	8
Packing 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 regulated.

**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**

Listed, Trichloroacetic acid (CAS #76-03-9).

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

Listed, Trichloroacetic acid (CAS #76-03-9).

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

Listed, Trichloroacetic acid (CAS #76-03-9).

**California Proposition 65**

Listed, Trichloroacetic acid (CAS #76-03-9).

**SECTION 16: Other information**

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Revision 2: 11/13/2024

**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.