

SAFETY DATA SHEET

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

1.1 Product identifiers

Product name: Trichloroacetic Acid, 85% (w/v)

CAS number: See section 3

Synonyms: None

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

Identified uses: General laboratory uses

1.3 Details of the supplier of the safety data sheet

Company Lab Alley, LLC 12501 Pauls Valley Road, Suite A, Austin, TX 78737 U.S.A

Telephone 512-668-9918 Fax 512-886-4008

1.4 Emergency telephone

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

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 P264, P270, P301+P312, P330, P501
Skin Corrosion / Irritation Category 1A H314 P260, P264, P280, P301+P330+P331, P303+P361+P353, P363, P304+P340, P310, P321, P305+P351+P338, P405, P501

Eye Damage / Irritation Category 1 H318 P280, P305+P351+P338, P310

Germ Cell Mutagenicity Category 2 H341 P201, P202, P280, P308+P313, P405, P501

Carcinogenicity Category 2 H351 P201, P202, P280, P308+P313, P405, P501

Reproductive Toxicity Category 2 H361 P201, P202, P280, P308+P313, P405, P501

Specific Target Organs/Systemic Toxicity

Following Single Exposure Category 2 H371 P260, P264, P270, P308+P311, P405, P501 Corrosive to Metals Category 1 H290 P234, P390, P406

Hazardous to the Aquatic Environment (Acute) Category 1 H400 P273, P391, P501 Hazardous to the Aquatic Environment (Chronic) Category 1 H410 P273, P391, P501

2.2 GHS label elements including precautionary statements.

Pictogram



Signal word: Danger

Hazard Statement

H290 May be corrosive to metals.

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage.

H341 Suspected of causing genetic defects.

H351 Suspected of causing cancer.

H361 Suspected of damaging fertility or the unborn child.

H371 May cause damage to organs.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

Precautionary Statements

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P234 Keep only in original container.

P260 Do not breathe fumes, mist, vapors, or spray.

P264 Wash arms, hands and face thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P273 Avoid release to the environment.

P280 Wear protective gloves and eye protection.

P301+P312 IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell.

P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and

easy to do. Continue rinsing.

P308+P311 IF exposed or concerned: Call a POISON CENTER or physician.

P308+P313 IF exposed or concerned: Get medical attention.

P310 Immediately call a POISON CENTER or physician.

P321 Specific treatment (Wash areas of contact with water immediately).

P330 Rinse mouth.

P363 Wash contaminated clothing before reuse.

P390 Absorb spillage to prevent material damage.

P391 Collect spillage.

P405 Store locked up.

P406 Store in corrosive resistant container with a resistant inner liner.

P501 Dispose of contents in accordance with local, state, federal and international regulations

2.3 Hazards not otherwise classified (HNOC)

None identified.

Chemical name	Common name	CAS number	Concentration
Trichloroacetic Acid		76-03-9	84 - 86% w/v
Water		7732-18-5	14 - 16% w/v

SECTION 4: First aid measures

4.1 Description of first-aid measures

Eye Contact: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. May cause severe irritation with possible permanent damage.

Inhalation: IF INHALED: Remove person to fresh air and keep comfortable for breathing.

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. May cause serious damage to the skin. Effects may include redness, pain, skin burns.

Ingestion: IF SWALLOWED: rinse mouth. Do NOT induce vomiting. Do not induce vomiting. Give large quantity of water. Call a physician immediately.

4.2 Most Important Symptoms and Effects, Acute and Delayed

Harmful if swallowed. Causes severe skin burns and eye damage. Causes serious eye damage. Suspected of causing genetic defects. Suspected of causing cancer. Suspected of damaging fertility or the unborn child. May cause damage to organs. WARNING! Corrosive liquid. Handle it with extreme care. Harmful if swallowed or contacted. Do not get in eyes, on skin, or on clothing. If ingested, dilute with water and call a physician. Do not induce vomiting. Wash areas of contact with plenty of water for at least 15 minutes. For eyes, get medical attention.

EYE CONTACT: May cause severe irritation with possible permanent damage.

SKIN CONTACT: May cause serious damage to the skin. Effects may include redness, pain, skin burns. CHRONIC EFFECTS / CARCINOGENICITY: Repeated exposures may cause erosion of exposed front teeth, darkening of skin and chronic inflammation of the nose, throat and bronchial tubes.

4.3. Medical Attention or Special Treatment Needed

Immediately call a POISON CENTER or physician. Specific treatment (Wash areas of contact with water immediately). Irrigate immediately with large quantity of water for at least 15 minutes. Call a physician if irritation develops. Remove to fresh air. Give artificial respiration if necessary. If breathing is difficult, give oxygen. Flush with plenty of water for at least 15 minutes. Call a physician if irritation develops. Do not induce vomiting. Give a large quantity of water. Call a physician immediately.

SECTION 5: Firefighting measures

5.1. Extinguishing Media

Does not burn. Use extinguishing media appropriate for surrounding fire. Extinguishing media that basic properties (such as chemical powder) may react violently with TCA. Extinguishing media that have basic properties (such as chemical powder) may react violently with TCA.

5.2. Specific Hazards Arising from the Substance or Mixture

Not considered to be a fire or explosion hazard. May react with metals to release flammable Hydrogen gas.

5.3. Special Protective Equipment for Firefighters

Use protective clothing and NIOSH-approved breathing equipment appropriate for the surrounding fire.

5.4 NFPA Rating

Health 3

Flammability 0

Reactivity 0

5.5 Further Information

Not available

SECTION 6: Accidental release measures

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

Wear protective gloves and eye protection.

6.2 Environmental Precautions

No data available

6.3 Methods and materials for containment and Cleaning up

Cover spill with Sodium Bicarbonate. Mix and scoop up into a large container of water. When the reaction is complete, pour down the drain with excess water. Always comply with local, state, and federal regulations.

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Store in corrosive resistant container with a resistant inner liner. As with all chemicals, wash hands thoroughly after handling. Avoid contact with eyes and skin. Protect from freezing and physical damage.

7.2 Conditions for safe storage, including any incompatibilities.

Keep containers tightly closed in a dry and well-ventilated place. Keep out of the reach of children. Keep containers tightly closed in a cool, well-ventilated place. Keep in properly labeled containers.

SECTION 8. Exposure controls/personal protection

8.1 Occupations Exposure Guidelines

Component	TLV-TWA	OSHA PEL	NIOSH IDLH	Mexico OEL (TWA)
Trichloroacetic acid (76-03-9)	TWA: 0.5 ppm	(Vacated) TWA: 1 ppm (Vacated) TWA: 7 mg/m3	TWA: 1ppm TWA: 7 mg/m3	

ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)

Legend

ACGIH - American Conference of Governmental Industrial Hygienists

OSHA - Occupational Safety and Health Administration

NIOSH IDLH: The National Institute for Occupational Safety and Health Immediately Dangerous to Life or Health

8.2 Exposure Controls

Engineering Controls: No specific controls are needed. Normal room ventilation is adequate.

Respiratory Protection: Normal room ventilation is adequate.

Skin Protection: Wear protective gloves and eye protection. Chemical resistant gloves.

Eye Protection: Wear protective gloves and eye protection. Safety glasses or goggles. When using, do not eat, drink or smoke. Remove and wash contaminated clothing before use. Provide regular cleaning of equipment, work area and clothing.

Personal Protective Equipment

Wear protective gloves and eye protection. Normal room ventilation is adequate. Chemical resistant gloves. Safety glasses or goggles.

SECTION 9: Physical and chemical properties

Appearance: Colorless to tan liquid

Physical State: Liquid

Odor: No data available

Odor Threshold: No data available

pH: <2

Melting/Freezing Point: No data available

Initial Boiling Point/Range: Approximately 100°C - Approximately 100°C

Flash Point: Evaporation Rate: No data available

Flammability: No data available

Flammability/Explosive Limits: No data available

Vapor Pressure: No data available

Vapor Density: No data available

Relative Density: 1.52

Solubility: No data available

Partition Coefficient: No data available

Auto-Ignition Temperature: No data available

Decomposition Temperature: No data available Viscosity:

Explosive Properties: No data available

Oxidizing Properties: No data available

SECTION 10: Stability and reactivity

10.1 Reactivity and Chemical Stability

Stable under normal conditions of use and storage.

10.2 Possibility of Hazardous Reactions

Data not available.

10.3 Conditions to Avoid and Incompatible Materials

Keep only in original container. Strong bases can react with metals to release Hydrogen gas.

10.4. Hazardous Decomposition Products

Will not occur.

SECTION 11: Toxicological information

11.1 Information on Toxicological Effects

Acute Toxicity - Oral Exposure:

Harmful if swallowed. Wash arms, hands and face thoroughly after handling. Do not eat, drink or smoke when using this product. IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell. Rinse mouth. Dispose of contents in accordance with local, state, federal and international regulations.

Acute Toxicity - Dermal Exposure:

Not applicable.

Acute Toxicity - Inhalation Exposure:

Not applicable.

Acute Toxicity - Other Information:

LD50, Oral, Rat (Trichloroacetic Acid): 5000 mg/kg, per Merck Index, 12th edition. Trichloroacetic Acid is investigated as a tumorigenic.

Skin Corrosion and Irritation:

Causes severe skin burns and eye damage. Do not breathe fumes, mist, vapors, or spray. Wash arms, hands and face thoroughly after handling. Wear protective gloves and eye protection.

IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Wash contaminated clothing before reuse.

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or physician. Specific treatment (Wash areas of contact with water immediately).

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Store locked up. Dispose of contents in accordance with local, state, federal and international regulations.

Serious Eye Damage and Irritation:

Wear protective gloves and eye protection.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or physician.

Respiratory Sensitization:

Not applicable.

Skin Sensitization:

Not applicable.

Germ Cell Mutagenicity:

Suspected of causing genetic defects. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves and eye protection. IF exposed or concerned: Get medical attention. Store locked up. Dispose of contents in accordance with local, state, federal and international regulations.

Carcinogenicity:

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves and eye protection. IF exposed or concerned: Get medical attention. Store locked up. Dispose of contents in accordance with local, state, federal and international regulations.

Reproductive Toxicity:

Suspected of damaging fertility or the unborn child. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves and eye protection. IF exposed or concerned: Get medical attention. Store locked up. Dispose of contents in accordance with local, state, federal and international regulations.

Specific Target Organ Toxicity from Single Exposure:

May cause damage to organs. Do not breathe fumes, mist, vapors, or spray. Wash arms, hands and face thoroughly after handling. Do not eat, drink or smoke when using this product. IF exposed or concerned: Call a POISON CENTER or physician. Store locked up. Dispose of contents in accordance with local, state, federal and international regulations.

Specific Target Organ Toxicity from Repeated Exposure:

Not applicable.

Aspiration Hazard:

Not applicable.

Additional Toxicology Information:

Data not available.

SECTION 12. Ecological information

12.1. Ecotoxicity

Very toxic to aquatic life. Avoid release to the environment. Collect spillage. Dispose of contents in accordance with local, state, federal and international regulations. Very toxic to aquatic life with long lasting effects. Avoid release to the environment. Collect spillage. Dispose of contents in accordance with local, state, federal and international regulations.

12.2. Persistence and Degradability

Data not available.

12.3. Bio-accumulative Potential

Data not available.

12.4. Mobility in Soil

Data not available.

12.5. Other Adverse Ecological Effects

Data not available.

SECTION 13. Disposal considerations

13.1 Waste Disposal Method

Chemical waste generators must determine whether a discarded chemical is classified as 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: UN2564

Proper Shipping Name: Trichloroacetic Acid Solution

Hazard Class 8

Packing Group II

Hazard label(s):



TDG

UN-No: UN2564

Proper Shipping Name: Trichloroacetic Acid Solution

Hazard Class 8

Packing Group II

Hazard label(s):



IATA

UN-No: UN2564

Proper Shipping Name: Trichloroacetic Acid Solution

Hazard Class 8
Packing Group II
Hazard label(s):



SECTION 15: Regulatory information

15.1. Occupational Safety and Health Administration (OSHA) Hazards

Not listed.

15.2. Superfund Amendments and Reauthorization Act (SARA) 302 Extremely Hazardous Substances

Not listed.

15.3. Superfund Amendments and Reauthorization Act (SARA) 311/312 Hazardous Chemicals

Not listed.

15.4. Superfund Amendments and Reauthorization Act (SARA) 313 Toxic Release Inventory (TRI)

Not listed.

15.5. Massachusetts Right-to-Know Substance List

Trichloroacetic acid (CAS # 76-03-9): Present

15.6. Pennsylvania Right-to-Know Hazardous Substances

Trichloroacetic acid (CAS # 76-03-9): Present

Water (CAS # 7732-18-5): Present

15.7. New Jersey Worker and Community Right-to-Know Components

Trichloroacetic acid (CAS # 76-03-9): carcinogen; corrosive

Trichloroacetic acid (CAS # 76-03-9): SN 1883

15.8. California Proposition 65

Trichloroacetic acid (CAS # 76-03-9): carcinogen, 9/13/2013

15.9. Canada Domestic Substances List / Non-Domestic Substances List (DSL/NDSL)

Trichloroacetic acid (CAS # 76-03-9): Present (DSL)

Water (CAS # 7732-18-5): Present (DSL)

15.10. United States of America Toxic Substances Control Act (TSCA) List

All components of this solution are listed as active on the TSCA Inventory or are mixtures (hydrates)

of active items listed on the TSCA Inventory.

Trichloroacetic acid (CAS # 76-03-9): Present

Water (CAS # 7732-18-5): Present

15.11. European Inventory of Existing Commercial Chemical Substances (EINECS), European List of Notified Chemical Substances (ELINCS), and No Longer Polymers (NLP)

Trichloroacetic acid (CAS # 76-03-9): 200-927-2

Water (CAS # 7732-18-5): 231-791-2

Water (CAS # 7732-18-5): 232-148-9

International Inventories

Compone nt	TSC A	DS L	NDS L	EINEC S	ELINC S	NL P	PICC S	ENC S	AIC S	IECS C	KEC L

Legend:

X - Listed

- E Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA.
- F Indicates a substance that is the subject of a Section 5(f) Rule under TSCA.
- N Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.
- P Indicates a commenced PMN substance
- R Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.
- S Indicates a substance that is identified in a proposed or final Significant New Use Rule
- T Indicates a substance that is the subject of a Section 4 test rule under TSCA.

XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B).

Y1 - Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.

Y2 - Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

U.S. Federal Regulations

TSCA 12(b)

Listed

SARA 313

Not listed

Component	CAS-No	Weight %	SARA 313 - Threshold Values %

SARA 311/312 Hazard Categories See section 2 for more information.

Not listed

CWA (Clean Water Act)

Not applicable

Clean Air Act

Not applicable

OSHA Occupational Safety and Health Administration

Not applicable

CERCLA

Not applicable

California Proposition 65

Trichloroacetic acid (CAS # 76-03-9): carcinogen, 9/13/2013

U.S. State Right-to-Know Regulations

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode
					Island
Trichloroacetic	Χ	Х	Χ	-	-
acid					
Water	-	-	Χ	-	-

U.S. Department of Transportation

Reportable Quantity (RQ): N

DOT Marine Pollutant N

DOT Severe Marine Pollutant N

U.S. Department of Homeland Security

This product contains the following DHS chemicals: None.

Component	

Other International Regulations

Not available

SECTION 16: Other information

16.1. Full Text of Hazard Statements and Precautionary Statements

May be corrosive to metals. Harmful if swallowed. Causes severe skin burns and eye damage. Causes serious eye damage. Suspected of causing genetic defects. Suspected of causing cancer. Suspected of damaging fertility or the unborn child. May cause damage to organs. Very toxic to aquatic life with long lasting effects. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep only in original container. Do not breathe fumes, mist, vapors, or spray. Wash arms, hands and face thoroughly after handling. Do not eat, drink or smoke when using this product. Avoid release to the environment. Wear protective gloves and eye protection.

IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell.

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF exposed or concerned: Call a POISON CENTER or physician.

Specific treatment (Wash areas of contact with water immediately). Wash contaminated clothing before reuse. Absorb spillage to prevent material damage. Collect spillage.

Store locked up. Store in corrosive resistant container with a resistant inner liner.

Dispose of contents in accordance with local, state, federal and international regulations.

Date of issue: 12/26/2023

Revision: None

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.