

### SECTION 1: Identification

#### 1.1. Identification

Product form : Mixtures  
Product name : Trichloroacetic Acid, 3% w/v  
Product code : LC26200

#### 1.2. Recommended use and restrictions on use

Use of the substance/mixture : For laboratory and manufacturing use only.  
Recommended use : Laboratory chemicals  
Restrictions on use : Not for food, drug or household use

#### 1.3. Supplier

LabChem, Inc.  
1010 Jackson's Pointe Ct.  
Zelienople, PA 16063 - USA  
T 412-826-5230 - F 724-473-0647  
info@labchem.com - www.labchem.com

#### 1.4. Emergency telephone number

Emergency number : CHEMTREC: 1-800-424-9300 or +1-703-741-5970

### SECTION 2: Hazard(s) identification

#### 2.1. Classification of the substance or mixture

##### GHS US classification

Skin corrosion/irritation Category 2 H315 Causes skin irritation  
Serious eye damage/eye irritation Category 1 H318 Causes serious eye damage  
Carcinogenicity Category 2 H351 Suspected of causing cancer (oral)  
Full text of H statements : see section 16

#### 2.2. GHS Label elements, including precautionary statements

##### GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US) : Danger

Hazard statements (GHS US) : H315 - Causes skin irritation  
H318 - Causes serious eye damage  
H351 - Suspected of causing cancer (oral)

Precautionary statements (GHS US) : P201 - Obtain special instructions before use.  
P202 - Do not handle until all safety precautions have been read and understood.  
P264 - Wash exposed skin thoroughly after handling.  
P280 - Wear protective gloves, protective clothing, eye protection, face protection.  
P302+P352 - IF ON SKIN: Wash with plenty of soap and water.  
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+P313 - IF exposed or concerned: Get medical advice/attention.  
P310 - Immediately call a poison center or doctor/physician.  
P332+P313 - If skin irritation occurs: Get medical advice/attention.  
P362 - Take off contaminated clothing and wash before reuse.  
P405 - Store locked up.  
P501 - Dispose of contents/container to comply with local, state and federal regulations.

#### 2.3. Other hazards which do not result in classification

Other hazards not contributing to the classification : None.

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### 2.4. Unknown acute toxicity (GHS US)

Not applicable

## SECTION 3: Composition/Information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

| Name                 | Product identifier  | %  | GHS US classification                                    |
|----------------------|---------------------|----|----------------------------------------------------------|
| Water                | (CAS-No.) 7732-18-5 | 97 | Not classified                                           |
| Trichloroacetic Acid | (CAS-No.) 76-03-9   | 3  | Skin Corr. 1A, H314<br>Eye Dam. 1, H318<br>Carc. 2, H351 |

Full text of hazard classes and H-statements : see section 16

## SECTION 4: First-aid measures

### 4.1. Description of first aid measures

- First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible). Suspected of causing cancer.
- First-aid measures after inhalation : Allow affected person to breathe fresh air. Allow the victim to rest.
- First-aid measures after skin contact : Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention.
- First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or doctor/physician.
- First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

### 4.2. Most important symptoms and effects (acute and delayed)

- Potential Adverse human health effects and symptoms : Based on available data, the classification criteria are not met.
- Symptoms/effects after skin contact : Causes skin irritation.
- Symptoms/effects after eye contact : Causes serious eye damage.
- Chronic symptoms : Enlargement/affection of the liver.

### 4.3. Immediate medical attention and special treatment, if necessary

No additional information available

## SECTION 5: Fire-fighting measures

### 5.1. Suitable (and unsuitable) extinguishing media

- Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.
- Unsuitable extinguishing media : Do not use a heavy water stream.

### 5.2. Specific hazards arising from the chemical

### 5.3. Special protective equipment and precautions for fire-fighters

- Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

## SECTION 6: Accidental release measures

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

#### 6.1.1. For non-emergency personnel

- Protective equipment : Safety glasses. Gloves. Protective clothing. Combined gas/dust mask with filter type B/P3.
- Emergency procedures : Evacuate unnecessary personnel.

#### 6.1.2. For emergency responders

- Protective equipment : Equip cleanup crew with proper protection.
- Emergency procedures : Ventilate area.

### 6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

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### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

### 6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.

Hygiene measures : Wash exposed skin thoroughly after handling.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Direct sunlight, incompatible materials. Keep container closed when not in use.

Incompatible products : Strong bases. Strong oxidizers. metals.

Incompatible materials : Sources of ignition. Direct sunlight.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

| Trichloroacetic Acid, 3% w/v               |                     |
|--------------------------------------------|---------------------|
| No additional information available        |                     |
| Trichloroacetic Acid (76-03-9)             |                     |
| USA - ACGIH - Occupational Exposure Limits |                     |
| ACGIH OEL TWA [ppm]                        | 0.5 ppm             |
| USA - NIOSH - Occupational Exposure Limits |                     |
| NIOSH REL (TWA)                            | 7 mg/m <sup>3</sup> |
| NIOSH REL TWA [ppm]                        | 1 ppm               |
| Water (7732-18-5)                          |                     |
| No additional information available        |                     |

### 8.2. Appropriate engineering controls

Appropriate engineering controls : Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure. Provide adequate general and local exhaust ventilation.

### 8.3. Individual protection measures/Personal protective equipment

#### Personal protective equipment:

Gloves. Safety glasses.

#### Hand protection:

Wear protective gloves.

#### Eye protection:

Chemical goggles or safety glasses

#### Skin and body protection:

Wear suitable protective clothing

#### Respiratory protection:

Respiratory protection not required in normal conditions

#### Personal protective equipment symbol(s):

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### Other information:

Do not eat, drink or smoke during use.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

|                                             |                            |
|---------------------------------------------|----------------------------|
| Physical state                              | : Liquid                   |
| Appearance                                  | : Clear, colorless liquid. |
| Color                                       | : Colorless                |
| Odor                                        | : mild Pungent             |
| Odor threshold                              | : No data available        |
| pH                                          | : No data available        |
| Melting point                               | : No data available        |
| Freezing point                              | : No data available        |
| Boiling point                               | : No data available        |
| Flash point                                 | : No data available        |
| Relative evaporation rate (butyl acetate=1) | : No data available        |
| Flammability (solid, gas)                   | : Non flammable.           |
| Vapor pressure                              | : No data available        |
| Relative vapor density at 20 °C             | : No data available        |
| Relative density                            | : No data available        |
| Solubility                                  | : Soluble in water.        |
| Log Pow                                     | : No data available        |
| Auto-ignition temperature                   | : No data available        |
| Decomposition temperature                   | : No data available        |
| Viscosity, kinematic                        | : No data available        |
| Viscosity, dynamic                          | : No data available        |
| Explosion limits                            | : No data available        |
| Explosive properties                        | : No data available.       |
| Oxidizing properties                        | : None.                    |

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No additional information available

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

Reacts violently with (some) bases: release of heat.

### 10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

### 10.5. Incompatible materials

Strong oxidizers. Strong bases. metals.

### 10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide.

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### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

|                             |                  |
|-----------------------------|------------------|
| Acute toxicity (oral)       | : Not classified |
| Acute toxicity (dermal)     | : Not classified |
| Acute toxicity (inhalation) | : Not classified |

| Trichloroacetic Acid (76-03-9) |                        |
|--------------------------------|------------------------|
| LD50 oral rat                  | 3320 mg/kg             |
| ATE US (oral)                  | 3320 mg/kg body weight |

| Water (7732-18-5) |                         |
|-------------------|-------------------------|
| LD50 oral rat     | ≥ 90000 mg/kg           |
| ATE US (oral)     | 90000 mg/kg body weight |

|                                   |                                       |
|-----------------------------------|---------------------------------------|
| Skin corrosion/irritation         | : Causes skin irritation.             |
| Serious eye damage/irritation     | : Causes serious eye damage.          |
| Respiratory or skin sensitization | : Not classified                      |
| Germ cell mutagenicity            | : Not classified                      |
| Carcinogenicity                   | : Suspected of causing cancer (oral). |

| Trichloroacetic Acid (76-03-9) |                                      |
|--------------------------------|--------------------------------------|
| IARC group                     | 2B - Possibly carcinogenic to humans |

|                       |                  |
|-----------------------|------------------|
| Reproductive toxicity | : Not classified |
|-----------------------|------------------|

|                      |                  |
|----------------------|------------------|
| STOT-single exposure | : Not classified |
|----------------------|------------------|

|                        |                  |
|------------------------|------------------|
| STOT-repeated exposure | : Not classified |
|------------------------|------------------|

|                      |                     |
|----------------------|---------------------|
| Aspiration hazard    | : Not classified    |
| Viscosity, kinematic | : No data available |

|                                                     |                                                                     |
|-----------------------------------------------------|---------------------------------------------------------------------|
| Likely routes of exposure                           | : Skin and eye contact.                                             |
| Potential Adverse human health effects and symptoms | : Based on available data, the classification criteria are not met. |
| Symptoms/effects after skin contact                 | : Causes skin irritation.                                           |
| Symptoms/effects after eye contact                  | : Causes serious eye damage.                                        |
| Chronic symptoms                                    | : Enlargement/affection of the liver.                               |

### SECTION 12: Ecological information

#### 12.1. Toxicity

| Trichloroacetic Acid (76-03-9) |                                                                                                                                      |
|--------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| LC50 fish 1                    | 2000 mg/l (Equivalent or similar to OECD 203, 96 h, Pimephales promelas, Static system, Fresh water, Experimental value, Lethal)     |
| EC50 Daphnia 1                 | 2000 mg/l (Equivalent or similar to OECD 202, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect) |

#### 12.2. Persistence and degradability

| Trichloroacetic Acid, 3% w/v  |                  |
|-------------------------------|------------------|
| Persistence and degradability | Not established. |

| Trichloroacetic Acid (76-03-9) |                                     |
|--------------------------------|-------------------------------------|
| Persistence and degradability  | Not readily biodegradable in water. |

| Water (7732-18-5)             |                  |
|-------------------------------|------------------|
| Persistence and degradability | Not established. |

#### 12.3. Bioaccumulative potential

| Trichloroacetic Acid, 3% w/v |                  |
|------------------------------|------------------|
| Bioaccumulative potential    | Not established. |

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| Trichloroacetic Acid (76-03-9) |                                                                              |
|--------------------------------|------------------------------------------------------------------------------|
| BCF fish 1                     | 0.4 – 1.7 mg/l (6 week(s), Cyprinus carpio, Fresh water, Experimental value) |
| Log Pow                        | 1.33 (Experimental value, 25 °C)                                             |
| Bioaccumulative potential      | Low potential for bioaccumulation (BCF < 500).                               |

| Water (7732-18-5)         |                  |
|---------------------------|------------------|
| Bioaccumulative potential | Not established. |

### 12.4. Mobility in soil

| Trichloroacetic Acid (76-03-9) |                                                                    |
|--------------------------------|--------------------------------------------------------------------|
| Surface tension                | 27.8 mN/m (80 °C)                                                  |
| Log Koc                        | 0 (log Koc, Equivalent or similar to OECD 106, Experimental value) |
| Ecology - soil                 | Highly mobile in soil.                                             |

### 12.5. Other adverse effects

Other information : Avoid release to the environment.

## SECTION 13: Disposal considerations

### 13.1. Disposal methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to comply with local, state and federal regulations.

Ecology - waste materials : Avoid release to the environment.

## SECTION 14: Transport information

### Department of Transportation (DOT)

In accordance with DOT

Transport document description : UN2564 Trichloroacetic acid, solution, 8, II

UN-No.(DOT) : UN2564

Proper Shipping Name (DOT) : Trichloroacetic acid, solution

Transport hazard class(es) (DOT) : 8 - Class 8 - Corrosive material 49 CFR 173.136

Packing group (DOT) : II - Medium Danger

Hazard labels (DOT) : 8 - Corrosive



DOT Packaging Non Bulk (49 CFR 173.xxx) : 202

DOT Packaging Bulk (49 CFR 173.xxx) : 242

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|                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DOT Special Provisions (49 CFR 172.102)                          | : A3 - For combination packaging, if glass inner packaging (including ampoules) are used, they must be packed with absorbent material in tightly closed metal receptacles before packing in outer packaging.<br>A6 - For combination packaging, if plastic inner packaging are used, they must be packed in tightly closed metal receptacles before packing in outer packaging.<br>A7 - Steel packaging must be corrosion-resistant or have protection against corrosion.<br>B2 - MC 300, MC 301, MC 302, MC 303, MC 305, and MC 306 and DOT 406 cargo tanks are not authorized.<br>IB2 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized.<br>N34 - Aluminum construction materials are not authorized for any part of a packaging which is normally in contact with the hazardous material.<br>T7 - 4 178.274(d)(2) Normal..... 178.275(d)(3)<br>TP2 - a. The maximum degree of filling must not exceed the degree of filling determined by the following: (image) Where: tr is the maximum mean bulk temperature during transport, tf is the temperature in degrees celsius of the liquid during filling, and a is the mean coefficient of cubical expansion of the liquid between the mean temperature of the liquid during filling (tf) and the maximum mean bulk temperature during transportation (tr) both in degrees celsius. b. For liquids transported under ambient conditions may be calculated using the formula: (image) Where: d15 and d50 are the densities (in units of mass per unit volume) of the liquid at 15 C (59 F) and 50 C (122 F), respectively. |
| DOT Packaging Exceptions (49 CFR 173.xxx)                        | : 154                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) | : 1 L                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)     | : 30 L                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| DOT Vessel Stowage Location                                      | : B - (i) The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length; and (ii) "On deck only" on passenger vessels in which the number of passengers specified in paragraph (k)(2)(i) of this section is exceeded.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Emergency Response Guide (ERG) Number                            | : 153                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Other information                                                | : No supplementary information available.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

### Transport by sea (IMDG)

|                             |                                            |
|-----------------------------|--------------------------------------------|
| UN-No. (IMDG)               | : 2564                                     |
| Proper Shipping Name (IMDG) | : TRICHLOROACETIC ACID SOLUTION            |
| Class (IMDG)                | : 8 - Corrosive substances                 |
| Packing group (IMDG)        | : II - substances presenting medium danger |
| Limited quantities (IMDG)   | : 1 L                                      |

### Air transport (IATA/ICAO)

|                             |                                 |
|-----------------------------|---------------------------------|
| UN-No. (IATA)               | : 2564                          |
| Proper Shipping Name (IATA) | : Trichloroacetic acid solution |
| Class (IATA)                | : 8 - Corrosives                |
| Packing group (IATA)        | : II - Medium Danger            |

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

| Trichloroacetic Acid, 3% w/v        |                                                                                                                                         |
|-------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| SARA Section 311/312 Hazard Classes | Health hazard - Skin corrosion or Irritation<br>Health hazard - Serious eye damage or eye irritation<br>Health hazard - Carcinogenicity |

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

| Trichloroacetic Acid (76-03-9)      |                                 |
|-------------------------------------|---------------------------------|
| SARA Section 311/312 Hazard Classes | Immediate (acute) health hazard |

### 15.2. International regulations

#### CANADA

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### Trichloroacetic Acid (76-03-9)

Listed on the Canadian DSL (Domestic Substances List)

### Water (7732-18-5)

Listed on the Canadian DSL (Domestic Substances List)

#### EU-Regulations

No additional information available

#### National regulations

No additional information available

#### 15.3. US State regulations

**WARNING:** This product can expose you to Trichloroacetic Acid, which is known to the State of California to cause cancer. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

## SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date : 02/02/2021

Other information : None.

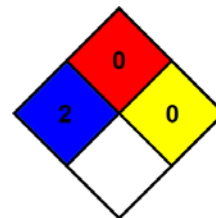
Full text of H-phrases: see section 16:

|      |                                         |
|------|-----------------------------------------|
| H314 | Causes severe skin burns and eye damage |
| H315 | Causes skin irritation                  |
| H318 | Causes serious eye damage               |
| H351 | Suspected of causing cancer             |

NFPA health hazard : 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.

NFPA fire hazard : 0 - Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand.

NFPA reactivity : 0 - Material that in themselves are normally stable, even under fire conditions.



#### Hazard Rating

Health : 2 Moderate Hazard - Temporary or minor injury may occur  
\* - Chronic (long-term) health effects may result from repeated overexposure

Flammability : 0 Minimal Hazard - Materials that will not burn

Physical : 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

Personal protection : J  
J - Splash goggles, Gloves, Synthetic apron, Dust & vapor respirator

SDS US LabChem

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