

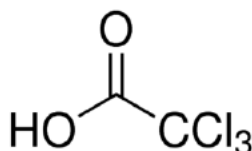
CAS-No.: 76-03-9 MSDS

## MATERIAL SAFETY DATA SHEET (MSDS)

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

#### 1.1. Product identifier

Product form : Substance  
:  
EC Index-No. : 607-004-00-7  
EC-No. : 200-927-2  
CAS-No. : 76-03-9  
Product code : 06355  
Chemical structure :



Synonyms : TCA

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

##### 1.2.1. Relevant identified uses

Industrial/Professional use spec : Industrial  
For professional use only

##### 1.2.2. Uses advised against

No additional information available

#### 1.3. Details of the supplier of the safety data sheet

Labogens Fine Chem Industries  
1st Floor , Above Bank of India, Guru Vihar , Rahon Road,  
Ludhiana Pb. (141007)  
+91 9316777775, +91 7707855700  
[sales@labogens.com](mailto:sales@labogens.com) - [www.Labogens.com](http://www.Labogens.com)

#### 1.4. Emergency telephone number

Emergency number : +91 7707855700 (9:00am - 6:00 pm)

### SECTION 2: Hazards identification

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

##### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Skin corrosion/irritation, H314  
Category 1A  
Hazardous to the aquatic H410  
environment — Chronic  
Hazard, Category 1

Full text of H statements : see section 16

# TRICHLOROACETIC ACID Extra Pure

## Safety Data Sheet

### Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

C; R35

N; R50/53

Full text of R-phrases: see section 16

### Adverse physicochemical, human health and environmental effects

No additional information available

## 2.2. Label elements

### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS05

GHS09

Signal word (CLP) :

Danger

Hazard statements (CLP) :

H314 - Causes severe skin burns and eye damage.  
H410 - Very toxic to aquatic life with long lasting effects.

Precautionary statements (CLP) :

P273 - Avoid release to the environment.  
P280 - Wear protective gloves/protective clothing/eye protection/face protection.  
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P310 - Immediately call a POISON CENTER/doctor  
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation

## 2.3. Other hazards

No additional information available

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Name : TRICHLOROACETIC ACID Extra Pure  
CAS-No. : 76-03-9  
EC-No. : 200-927-2  
EC Index-No. : 607-004-00-7

Full text of R- and H-statements: see section 16

### 3.2. Mixtures

Not applicable

# TRICHLOROACETIC ACID Extra Pure

## Safety Data Sheet

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

- First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.
- First-aid measures after skin contact : Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a POISON CENTER/doctor.
- 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/doctor.
- First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER/doctor.

#### 4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/effects : Causes severe skin burns and eye damage.

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

Treat symptomatically.

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

- Suitable extinguishing media : dry chemical powder, alcohol-resistant foam, carbon dioxide (CO<sub>2</sub>).
- Unsuitable extinguishing media : Do not use a heavy water stream.

#### 5.2. Special hazards arising from the substance or mixture

No additional information available

#### 5.3. Advice for firefighters

- Protection during firefighting : Do not attempt to take action without suitable protective equipment.

### SECTION 6: Accidental release measures

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

##### 6.1.1. For non-emergency personnel

- Emergency procedures : Evacuate unnecessary personnel.

##### 6.1.2. For emergency responders

- Protective equipment : Use personal protective equipment as required.
- Emergency procedures : Stop release.

#### 6.2. Environmental precautions

Very toxic to aquatic life with long lasting effects.

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

- Methods for cleaning up : Clear up rapidly by scoop or vacuum.

#### 6.4. Reference to other sections

No additional information available

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

- Precautions for safe handling : Do not breathe dust/fume/gas/mist/vapours/spray. Avoid contact during pregnancy/while nursing.
- Hygiene measures : Wash hands, forearms and face thoroughly after handling.

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

- Technical measures : Comply with applicable regulations.
- Storage conditions : Store in original container. Keep container tightly closed. Store in a dry place. Protect from moisture.

# TRICHLOROACETIC ACID Extra Pure

## Safety Data Sheet

### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

No additional information available

### 8.2. Exposure controls

|                          |  |
|--------------------------|--|
| Hand protection          | : protective gloves  |
| Eye protection           | : Chemical goggles or face shield                                  |
| Skin and body protection | : Wear suitable protective clothing                                |
| Respiratory protection   | : [In case of inadequate ventilation] wear respiratory protection. |

## SECTION 9: Physical and chemical properties

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

|  |                           |
|--|---------------------------|
| Physical state                             | : Solid                   |
| Molecular mass                             | : 163.39 g/mol            |
| Colour                                     | : Colorless crystals.     |
| Odour                                      | : No data available       |
| Odour threshold                            | : No data available       |
| pH   | : 1                       |
| Relative evaporation rate (butylacetate=1) | : No data available       |
| Melting point                              | : 54 - 58 °C              |
| Freezing point                             | : No data available       |
| Boiling point                              | : 196 °C                  |
| Flash point                                | : > 113 °C                |
| Auto-ignition temperature                  | : No data available       |
| Decomposition temperature                  | : No data available       |
| Flammability (solid, gas)                  | : No data available       |
| Vapour pressure                            | : No data available       |
| Relative vapour density at 20 °C           | : 5.64                    |
| Relative density                           | : No data available       |
| Density                                    | : 1.6 g/cm <sup>3</sup>   |
| Solubility                                 | : Water: Soluble in water |
| Log Pow                                    | : 1.645                   |

# TRICHLOROACETIC ACID Extra Pure

## Safety Data Sheet

|                      |                     |
|----------------------|---------------------|
| Viscosity, kinematic | : No data available |
| Viscosity, dynamic   | : No data available |
| Explosive properties | : No data available |
| Oxidising properties | : No data available |
| Explosive limits     | : No data available |

### 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 of use.

### 10.3. Possibility of hazardous reactions

No additional information available

### 10.4. Conditions to avoid

Direct sunlight. Air contact. Moisture.

### 10.5. Incompatible materials

No additional information available

### 10.6. Hazardous decomposition products

No additional information available

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

|                                   |   |
|-----------------------------------|---|
| Acute toxicity                    | : Not classified                                    |
| Skin corrosion/irritation         | : Causes severe skin burns and eye damage.<br>pH: 1 |
| Serious eye damage/irritation     | : Serious eye damage, category 1, implicit<br>pH: 1 |
| Respiratory or skin sensitisation | : Not classified                                    |
| Germ cell mutagenicity            | : Not classified                                    |
| Carcinogenicity                   | : Not classified                                    |
| Reproductive toxicity             | : Not classified                                    |
| STOT-single exposure              | : Not classified                                    |
| STOT-repeated exposure            | : Not classified                                    |
| Aspiration hazard                 | : Not classified                                    |

# TRICHLOROACETIC ACID Extra Pure

## Safety Data Sheet

### SECTION 12: Ecological information

#### 12.1. Toxicity

Ecology - water : Very toxic to aquatic life with long lasting effects.

#### 12.2. Persistence and degradability

##### TRICHLOROACETIC ACID Extra Pure (76-03-9)

|                               |   |
|-------------------------------|---|
| Persistence and degradability | May cause long-term adverse effects in the environment. |
|-------------------------------|---|

#### 12.3. Bioaccumulative potential

##### TRICHLOROACETIC ACID Extra Pure (76-03-9)

|         |       |
|---------|-------|
| Log Pow | 1.645 |
|---------|-------|

#### 12.4. Mobility in soil

No additional information available

#### 12.5. Results of PBT and vPvB assessment

No additional information available

#### 12.6. Other adverse effects

No additional information available

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

Product/Packaging disposal recommendations : Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

### SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

#### 14.1. UN number

|               |        |
|---------------|--------|
| UN-No. (ADR)  | : 1839 |
| UN-No. (IMDG) | : 1839 |
| UN-No. (IATA) | : 1839 |
| UN-No. (ADN)  | : 1839 |
| UN-No. (RID)  | : 1839 |

#### 14.2. UN proper shipping name

|                                      |   |
|--------------------------------------|---|
| Proper Shipping Name (ADR)           | : TRICHLOROACETIC ACID  |
| Proper Shipping Name (IMDG)          | : TRICHLOROACETIC ACID, SOLID   |
| Proper Shipping Name (IATA)          | : Trichloroacetic acid  |
| Proper Shipping Name (ADN)           | : TRICHLOROACETIC ACID  |
| Proper Shipping Name (RID)           | : TRICHLOROACETIC ACID  |
| Transport document description (ADR) | : UN 1839 TRICHLOROACETIC ACID, 8, II, (E), ENVIRONMENTALLY HAZARDOUS |

# TRICHLOROACETIC ACID Extra Pure

## Safety Data Sheet

|                                       |  |
|---------------------------------------|--|
| Transport document description (IMDG) | : UN 1839 TRICHLOROACETIC ACID, SOLID, 8, II, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS |
| Transport document description (IATA) | : UN 1839 Trichloroacetic acid, 8, II, ENVIRONMENTALLY HAZARDOUS                         |
| Transport document description (ADN)  | : UN 1839 TRICHLOROACETIC ACID, 8, II, ENVIRONMENTALLY HAZARDOUS                         |
| Transport document description (RID)  | : UN 1839 TRICHLOROACETIC ACID, 8, II, ENVIRONMENTALLY HAZARDOUS                         |

### 14.3. Transport hazard class(es)

#### ADR

|                                  |     |
|----------------------------------|-----|
| Transport hazard class(es) (ADR) | : 8 |
| Danger labels (ADR)              | : 8 |



#### IMDG

|                                   |     |
|-----------------------------------|-----|
| Transport hazard class(es) (IMDG) | : 8 |
| Danger labels (IMDG)              | : 8 |



#### IATA

|                                   |     |
|-----------------------------------|-----|
| Transport hazard class(es) (IATA) | : 8 |
| Hazard labels (IATA)              | : 8 |



#### ADN

|                                  |     |
|----------------------------------|-----|
| Transport hazard class(es) (ADN) | : 8 |
| Danger labels (ADN)              | : 8 |



#### RID

|                                  |     |
|----------------------------------|-----|
| Transport hazard class(es) (RID) | : 8 |
| Danger labels (RID)              | : 8 |



# TRICHLOROACETIC ACID Extra Pure

## Safety Data Sheet

### 14.4. Packing group


|                      |      |
|----------------------|------|
| Packing group (ADR)  | : II |
| Packing group (IMDG) | : II |
| Packing group (IATA) | : II |
| Packing group (ADN)  | : II |
| Packing group (RID)  | : II |

### 14.5. Environmental hazards

|                               |  |
|-------------------------------|--|
| Dangerous for the environment | : Yes                                    |
| Marine pollutant              | : Yes                                    |
| Other information             | : No supplementary information available |

### 14.6. Special precautions for user

#### - Overland transport

|   |   |
|---|---|
| Classification code (ADR)                                 | : C4  |
| Limited quantities (ADR)                                  | : 1kg   |
| Excepted quantities (ADR)                                 | : E2  |
| Packing instructions (ADR)                                | : P002, IBC08   |
| Special packing provisions (ADR)                          | : B4  |
| Mixed packing provisions (ADR)                            | : MP10  |
| Portable tank and bulk container instructions (ADR)       | : T3  |
| Portable tank and bulk container special provisions (ADR) | : TP33  |
| Tank code (ADR)   | : SGAN, L4BN  |
| Vehicle for tank carriage                                 | : AT  |
| Transport category (ADR)                                  | : 2   |
| Special provisions for carriage - Packages (ADR)          | : V11   |
| Hazard identification number (Kemler No.)                 | : 80  |
| Orange plates   | :  |
| Tunnel restriction code (ADR)                             | : E   |
| EAC code  | : 2X  |

#### - Transport by sea

|                                    |  |
|------------------------------------|--|
| Packing instructions (IMDG)        | : P002   |
| IBC packing instructions (IMDG)    | : IBC08  |
| IBC special provisions (IMDG)      | : B21, B4  |
| Tank instructions (IMDG)           | : T3   |
| Tank special provisions (IMDG)     | : TP33   |
| EmS-No. (Fire)                     | : F-A  |
| EmS-No. (Spillage)                 | : S-B  |
| Stowage category (IMDG)            | : A  |
| Properties and observations (IMDG) | : Colourless, deliquescent crystals. Melting point of the pure substance: 58°C . In the presence of moisture, corrosive to most metals. Causes burns to skin, eyes and mucous membranes. |
| MFAG-No                            | : 153  |

#### - Air transport

|                                |        |
|--------------------------------|--------|
| PCA Excepted quantities (IATA) | : E2   |
| PCA Limited quantities (IATA)  | : Y844 |



# TRICHLOROACETIC ACID Extra Pure

## Safety Data Sheet

|  |        |
|--|--------|
| PCA limited quantity max net quantity (IATA) | : 5kg  |
| PCA packing instructions (IATA)              | : 859  |
| PCA max net quantity (IATA)                  | : 15kg |
| CAO packing instructions (IATA)              | : 863  |
| CAO max net quantity (IATA)                  | : 50kg |
| ERG code (IATA)                              | : 8L   |

### - Inland waterway transport

|                                   |          |
|-----------------------------------|----------|
| Classification code (ADN)         | : C4     |
| Limited quantities (ADN)          | : 1 kg   |
| Excepted quantities (ADN)         | : E2     |
| Equipment required (ADN)          | : PP, EP |
| Number of blue cones/lights (ADN) | : 0      |

### - Rail transport

|   |               |
|---|---------------|
| Classification code (RID)                                 | : C4          |
| Excepted quantities (RID)                                 | : E2          |
| Packing instructions (RID)                                | : P002, IBC08 |
| Special packing provisions (RID)                          | : B4          |
| Mixed packing provisions (RID)                            | : MP10        |
| Portable tank and bulk container instructions (RID)       | : T3          |
| Portable tank and bulk container special provisions (RID) | : TP33        |
| Tank codes for RID tanks (RID)                            | : SGAN, L4BN  |
| Transport category (RID)                                  | : 2           |
| Special provisions for carriage – Packages (RID)          | : W11         |
| Colis express (express parcels) (RID)                     | : CE10        |
| Hazard identification number (RID)                        | : 80          |

### 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

## SECTION 15: Regulatory information

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### 15.1.1. EU-Regulations

No REACH Annex XVII restrictions

TRICHLOROACETIC ACID Extra Pure is not on the REACH Candidate List

TRICHLOROACETIC ACID Extra Pure is not on the REACH Annex XIV List

#### 15.1.2. National regulations

##### Germany

Reference to AwSV : Water hazard class (WGK) 2, Significantly hazardous to water (Classification according to AwSV; ID No. 197)

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

# TRICHLOROACETIC ACID Extra Pure

## Safety Data Sheet

### Netherlands

|   |   |
|---|---|
| SZW-lijst van kankerverwekkende stoffen   | : The substance is not listed               |
| SZW-lijst van mutagene stoffen  | : The substance is not listed               |
| NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding   | : The substance is not listed               |
| NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid | : The substance is not listed               |
| NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling   | : TRICHLOROACETIC ACID Extra Pure is listed |

### Denmark

|                                   |   |
|-----------------------------------|---|
| Recommendations Danish Regulation | : Young people below the age of 18 years are not allowed to use the product |
|-----------------------------------|---|

## 15.2. Chemical safety assessment

No additional information available

## SECTION 16: Other information

Full text of R-, H- and EUH-statements:

|                   |   |
|-------------------|---|
| Aquatic Chronic 1 | Hazardous to the aquatic environment — Chronic Hazard, Category 1                               |
| Skin Corr. 1A     | Skin corrosion/irritation, Category 1A  |
| H314              | Causes severe skin burns and eye damage.  |
| H410              | Very toxic to aquatic life with long lasting effects.   |
| R35               | Causes severe burns   |
| R50/53            | Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment |
| C                 | Corrosive   |
| N                 | Dangerous for the environment   |

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.*