

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
Date of issue: 16/01/2013 Revision date: 23/12/2022 Supersedes version of: 30/04/2018 Version: 2.3

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

Product form : Substance
Trade name : UN1839 Trichloroacetic acid 99% Analytical Grade ACS
Chemical name : TCA (ISO); trichloroacetic acid
EC Index-No. : 607-004-00-7
EC-No. : 200-927-2
CAS-No. : 76-03-9
Product code : TRCH-00A
Formula : CCl₃COOH

1.2. Relevant identified uses of the substance or mixture and uses advised against**1.2.1. Relevant identified uses**

Main use category : Laboratory use

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

labbox labware s.l.
Migjorn, 1
P.O. Box Barcelona (SPAIN)
08338 Premia de Dalt – SPAIN
ES
T +34 937 07 79 70 - F +34 937 909 532
info@labbox.com - www.labbox.com

1.4. Emergency telephone number

Emergency number : +34 937 077 970 (For technical information_Office Hours) In case of medical emergency phone 112 or to your local emergency number.

Country	Organisation/Company	Address	Emergency number	Comment
United Kingdom	National Poisons Information Service (Belfast Centre) Royal Victoria Hospital	Grosvenor Road BT12 6BA	0344 892 0111	

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****Classification according to Regulation (EC) No. 1272/2008 [CLP]**

Skin corrosion/irritation, Category 1 H314
Serious eye damage/eye irritation, Category 1 H318
Hazardous to the aquatic environment — Acute Hazard, Category 1 H400
Hazardous to the aquatic environment — Chronic Hazard, Category 1 H410

Full text of H and EUH statements: see section 16

Specific concentration limits:

(1 ≤C < 100)

STOT SE 3, H335

Adverse physicochemical, human health and environmental effects

No additional information available

UN1839 Trichloroacetic acid 99% Analytical Grade ACS

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

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)

: P260 - Do not breathe dust/fume/gas/mist/vapours/spray.
P264 - Wash hands, forearms and face thoroughly after handling.
P273 - Avoid release to the environment.
P280 - Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
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 or shower.

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Name	Product identifier	%
Trichloroacetic acid 99%	CAS-No.: 76-03-9 EC-No.: 200-927-2 EC Index-No.: 607-004-00-7	100

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: Get medical advice/attention if you feel unwell.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. If you feel unwell, seek medical advice.
First-aid measures after skin contact	: Wash skin with plenty of water. Take off immediately all contaminated clothing and wash it 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. Consult an eye specialist.
First-aid measures after ingestion	: Rinse mouth. Do not induce vomiting. Call a physician immediately.

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

Symptoms/effects after skin contact	: Causes severe burns.
Symptoms/effects after eye contact	: Serious damage to eyes.

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

Never give anything by mouth to an unconscious person.

UN1839 Trichloroacetic acid 99% Analytical Grade ACS

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : ABC-powder.
Unsuitable extinguishing media : Strong water jet.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : fume. Corrosive vapours.

5.3. Advice for firefighters

Firefighting instructions : Exercise caution when fighting any chemical fire.
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

No additional information available

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection. Use personal protective equipment as required.
Emergency procedures : Stop leak if safe to do so. Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

For containment : Collect spillage.
Methods for cleaning up : This material and its container must be disposed of in a safe way, and as per local legislation. Collect spillage. Mechanically recover the product.

6.4. Reference to other sections

See Heading 8. For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Store in a well-ventilated place. Keep container tightly closed.
Incompatible products : Strong bases. Strong acids.
Storage area : Store in a dry area. Store in a cool, well-ventilated place.
Special rules on packaging : Keep only in original container. Store in a closed container.

7.3. Specific end use(s)

Laboratory chemicals.

UN1839 Trichloroacetic acid 99% Analytical Grade ACS

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

UN1839 Trichloroacetic acid 99% Analytical Grade ACS (76-03-9)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	Trichloroacetic acid
Remark	SCOEL Recommendations (2004)
France - Occupational Exposure Limits	
Local name	Acide trichloroacétique
VME (OEL TWA)	5 mg/m ³
VME (OEL TWA) [ppm]	1 ppm
Remark	Valeurs recommandées/admises
Regulatory reference	Circulaire du Ministère du travail (réf.: INRS ED 984, 2016)
Portugal - Occupational Exposure Limits	
Local name	Ácido tricloroacético
OEL TWA [ppm]	0,5 ppm
Regulatory reference	Norma Portuguesa NP 1796:2014
Spain - Occupational Exposure Limits	
Local name	Ácido tricloroacético
VLA-ED (OEL TWA) [1]	6,8 mg/m ³
VLA-ED (OEL TWA) [2]	1 ppm

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

UN1839 Trichloroacetic acid 99% Analytical Grade ACS (76-03-9)	
DNEL/DMEL (Workers)	
Acute - systemic effects, dermal	1,41 mg/kg bodyweight/day
Acute - systemic effects, inhalation	124,3 mg/kg bw/day
Acute - local effects, dermal	1,41 mg/kg bw/day
Acute - local effects, inhalation	124,3 mg/kg bw/day
DNEL/DMEL (General population)	
Acute - systemic effects, dermal	0,705 mg/kg bodyweight
Acute - systemic effects, oral	0,705 mg/kg bw/day
Long-term - systemic effects, inhalation	61,3 mg/m ³
PNEC (Water)	
PNEC aqua (freshwater)	0,00017 mg/l
PNEC aqua (marine water)	0,000017 mg/l

UN1839 Trichloroacetic acid 99% Analytical Grade ACS

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

UN1839 Trichloroacetic acid 99% Analytical Grade ACS (76-03-9)	
PNEC (Sediment)	
PNEC sediment (freshwater)	0,000143 mg/kg dwt
PNEC sediment (marine water)	0,0000143 mg/kg dwt
PNEC (Soil)	
PNEC soil	0,0046 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	100 mg/l

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

8.2.2. Personal protection equipment

Personal protective equipment:

Avoid all unnecessary exposure. EN 374.

Personal protective equipment symbol(s):



8.2.2.1. Eye and face protection

Eye protection:

Face shield

Eye protection			
Type	Field of application	Characteristics	Standard
Category II			EN 166, EN 167, EN 168

8.2.2.2. Skin protection

Skin and body protection:

Wear suitable protective clothing

Skin and body protection	
Type	Standard
Protective clothing	EN 13034, EN 168, EN ISO 13982-1, EN ISO 6529, EN ISO 6530

Hand protection:

Protective gloves

UN1839 Trichloroacetic acid 99% Analytical Grade ACS

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Hand protection					
Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Category III					EN ISO 374-1, EN 374-3, EN 420

Other skin protection Materials for protective clothing		
Condition	Material	Standard
		EN ISO 20345, EN 13832-1

8.2.2.3. Respiratory protection

Respiratory protection:

Where exposure through inhalation may occur from use, respiratory protection equipment is recommended

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

No additional information available

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Colour	: Not available
Odour	: Not available
Odour threshold	: Not available
Melting point	: 27 °C
Freezing point	: Not available
Boiling point	: Not available
Flammability	: Not available
Explosive limits	: Not applicable
Lower explosion limit	: Not applicable
Upper explosion limit	: Not applicable
Flash point	:
Auto-ignition temperature	: Not applicable
Decomposition temperature	: Not available
pH	: Not available
pH solution	: Not available
Viscosity, kinematic	: Not applicable
Solubility	: Not available
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not available
Vapour pressure at 50 °C	: Not available
Density	: 1610 kg/m ³
Relative density	: Not available
Relative vapour density at 20 °C	: 1,61
Particle size	: Not available

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

No additional information available

UN1839 Trichloroacetic acid 99% Analytical Grade ACS

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable in use and storage conditions as recommended in item 7.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

No additional information available

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

Carbon dioxide. Carbon monoxide. fume. Corrosive vapours.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

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

UN1839 Trichloroacetic acid 99% Analytical Grade ACS (76-03-9)

LD50 oral rat	3320 mg/kg
---------------	------------

Skin corrosion/irritation : Causes severe skin burns.
Serious eye damage/irritation : Causes serious eye damage.
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

11.2. Information on other hazards

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Ecology - water : Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.
Hazardous to the aquatic environment, short-term (acute) : Very toxic to aquatic life.
Hazardous to the aquatic environment, long-term (chronic) : Very toxic to aquatic life with long lasting effects.

UN1839 Trichloroacetic acid 99% Analytical Grade ACS

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

12.2. Persistence and degradability

UN1839 Trichloroacetic acid 99% Analytical Grade ACS (76-03-9)

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

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste)	: Disposal must be done according to official regulations.
Waste treatment methods	: Must follow special treatment according to local regulation.
HP Code	: HP4 - "Irritant — skin irritation and eye damage:" waste which on application can cause skin irritation or damage to the eye. HP14 - "Ecotoxic:" waste which presents or may present immediate or delayed risks for one or more sectors of the environment

SECTION 14: Transport information

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

14.1. UN number or ID number

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

UN1839 Trichloroacetic acid 99% Analytical Grade ACS

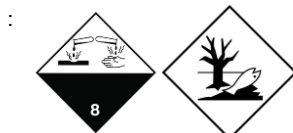
Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

14.3. Transport hazard class(es)

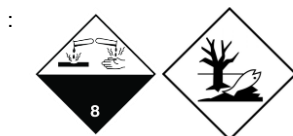
ADR

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



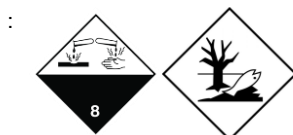
IMDG

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



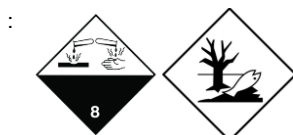
IATA

Transport hazard class(es) (IATA) : 8
Danger labels (IATA) : 8



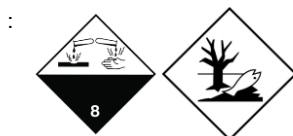
ADN

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



RID

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



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

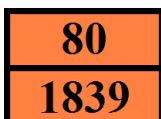
Classification code (ADR) : C4

UN1839 Trichloroacetic acid 99% Analytical Grade ACS

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

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

Limited quantities (IMDG)	: 1 kg
Excepted quantities (IMDG)	: E2
Packing instructions (IMDG)	: P002
IBC packing instructions (IMDG)	: IBC08
IBC special provisions (IMDG)	: B2, 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.

Air transport

PCA Excepted quantities (IATA)	: E2
PCA Limited quantities (IATA)	: Y844
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
Limited quantities (RID)	: 1kg
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

UN1839 Trichloroacetic acid 99% Analytical Grade ACS

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

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. Maritime transport in bulk according to IMO instruments

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

REACH Annex XVII (Restriction List)

No REACH Annex XVII restrictions

REACH Annex XIV (Authorisation List)

UN1839 Trichloroacetic acid 99% Analytical Grade ACS is not on the REACH Annex XIV List

REACH Candidate List (SVHC)

UN1839 Trichloroacetic acid 99% Analytical Grade ACS is not on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

UN1839 Trichloroacetic acid 99% Analytical Grade ACS is not subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

POP Regulation (Persistent Organic Pollutants)

UN1839 Trichloroacetic acid 99% Analytical Grade ACS is not subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

Ozone Regulation (1005/2009)

Trichloroacetic acid 99% is not subject to REGULATION (EU) No 1005/2009 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 September 2009 on substances that deplete the ozone layer.

Explosives Precursors Regulation (2019/1148)

Contains no substance subject to Regulation (EU) 2019/1148 of the European Parliament and of the Council of 20 June 2019 on the marketing and use of explosives precursors.

Drug Precursors Regulation (273/2004)

Contains no substance subject to Regulation (EC) 273/2004 of the European Parliament and of the Council of 11 February 2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances.

15.1.2. National regulations

Germany

Water hazard class (WGK)	: WGK 2, Significantly hazardous to water (Classification according to VwVwS, Annex 1 or 2; ID No. 197).
Hazardous Incident Ordinance (12. BImSchV)	: Is not subject of the Hazardous Incident Ordinance (12. BImSchV)

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 99% is listed

Denmark

Danish National Regulations	: Young people below the age of 18 years are not allowed to use the product
-----------------------------	---

UN1839 Trichloroacetic acid 99% Analytical Grade ACS

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Full text of H- and EUH-statements:

Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
Skin Corr. 1	Skin corrosion/irritation, Category 1
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation

Safety Data Sheet (SDS), EU

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.