

Safety Data Sheet

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

Date of issue: 10/01/2013 Revision date: 05/15/2018 Supersedes: 10/01/2013 Version: 1.1

SECTION 1: Identification

Identification

Product form : Mixtures

Product name : Trichloroacetic Acid, 80% w/v

Product code LC26265

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

Supplier 1.3.

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Emergency telephone number

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

SECTION 2: Hazard(s) identification

Classification of the substance or mixture

GHS-US classification

Skin corrosion/irritation H314 Causes severe skin burns and eye damage

Category 1A

Serious eye damage/eye H318 Causes serious eye damage

irritation Category 1

Carcinogenicity Category 2 H351 Suspected of causing cancer (oral)

Full text of H statements : see section 16

GHS Label elements, including precautionary statements

GHS-US labeling

Hazard pictograms (GHS-US)





GHS05

GHS08

Signal word (GHS-US) : Danger

Hazard statements (GHS-US) : H314 - Causes severe skin burns and 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.

P260 - Do not breathe mist, vapors, spray.

P264 - Wash exposed skin thoroughly after handling.

P280 - Wear protective gloves, protective clothing, eye protection, face protection. P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303+P361+P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated

clothing. Rinse skin with water/shower.

P304+P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position

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+P313 - IF exposed or concerned: Get medical advice/attention.

P310 - Immediately call a poison center or doctor/physician.

P363 - Wash contaminated clothing before reuse.

P405 - Store locked up.

P501 - Dispose of contents/container to comply with local, state and federal regulations

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2.3. Other hazards which do not result in classification

Other hazards not contributing to the : None.

classification

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
Trichloroacetic Acid	(CAS-No.) 76-03-9	80	Skin Corr. 1A, H314 Eye Dam. 1, H318 Carc. 2, H351
Water	(CAS-No.) 7732-18-5	20	Not classified

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 (Oral).

First-aid measures after inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately

call a poison center or doctor/physician.

First-aid measures after skin contact : Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

Immediately call a poison center or doctor/physician.

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. Immediately call a poison center or doctor/physician.

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

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

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

Reactivity : Thermal decomposition generates : Corrosive vapors.

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.

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6.2. Environmental precautions

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

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. Do not breathe mist, vapors, spray. Avoid contact during pregnancy/while nursing. 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

Technical measures

: Comply with applicable regulations.

Storage conditions

: Keep only in the original container in a cool, well ventilated place away from : Heat sources,

incompatible materials. Keep container closed when not in use.

Incompatible products : Strong oxidizers. metals. Strong bases. Incompatible materials : Sources of ignition. Direct sunlight.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Trichloroacetic Acid (76-03-9)		
ACGIH	ACGIH TWA (ppm)	0.5 ppm
NIOSH	NIOSH REL (TWA) (mg/m³)	7 mg/m³
NIOSH	NIOSH REL (TWA) (ppm)	1 ppm
Water (7732-18-5)		
Not applicable		

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:

Chemical resistant apron. Face shield. Gloves. Protective clothing. Safety glasses.









Hand protection:

Wear protective gloves.

Eye protection:

Chemical goggles or face shield

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

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Respiratory protection not required in normal conditions

Other information:

Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties 9.1.

Physical state : Liquid

Appearance : Clear, colorless liquid.

Color : Colorless Odor : mild Pungent Odor threshold : No data available Hq : 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 ℃ : 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

Explosive properties : No data available. Oxidizing properties : None.

Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Explosion limits

9.2

Thermal decomposition generates: Corrosive vapors.

Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

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

Conditions to avoid 10.4.

Direct sunlight. Extremely high or low temperatures.

Incompatible materials

Strong oxidizers. metals. Strong bases.

Hazardous decomposition products

Chlorine. Carbon monoxide. Carbon dioxide. Thermal decomposition generates: Corrosive vapors.

: No data available

SECTION 11: Toxicological information

Information on toxicological effects

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Likely routes of exposure : Inhalation; Skin and eye contact

Acute toxicity : 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 severe skin burns and eye damage.

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).

IARC group 2B - Possibly carcinogenic to humans

Reproductive toxicity : Not classified Specific target organ toxicity – single exposure : Not classified Specific target organ toxicity – repeated : Not classified

exposure

Aspiration hazard : Not classified

Potential Adverse human health effects and

symptoms

: Based on available data, the classification criteria are not met.

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, Weight of evidence)
EC50 Daphnia 1	2000 mg/l (Equivalent or similar to OECD 202, 48 h, Daphnia magna, Static system, Fresh water, Experimental value)
ErC50 (algae)	0.46 mg/l (Other, 14 day(s), Chlorella sp., Static system, Fresh water, Experimental value)

12.2. Persistence and degradability

Trichloroacetic Acid, 80% 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, 80% w/v		
Bioaccumulative potential	Not established.	
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 ℃)	
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).	
Water (7732-18-5)		
Bioaccumulative potential	Not established.	

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12.4. Mobility in soil

Trichloroacetic Acid (76-03-9)		
Surface tension	0.278 N/m (80 °C)	
Log Koc	0 (log Koc, Other, 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

: 202

Packing group (DOT) : II - Medium Danger Hazard labels (DOT) : 8 - Corrosive



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

A6 - For combination packaging, if plastic inner packaging are used, they must be packed in tightly closed metal receptacles before packing in outer packaging.

A7 - Steel packaging must be corrosion-resistant or have protection against corrosion.

B2 - MC 300, MC 301, MC 302, MC 303, MC 305, and MC 306 and DOT 406 cargo tanks are not authorized.

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.

N34 - Aluminum construction materials are not authorized for any part of a packaging which is normally in contact with the hazardous material.

T7 - 4 178.274(d)(2) Normal..... 178.275(d)(3)

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 : 1 L

(49 CFR 173.27)

DOT Quantity Limitations Cargo aircraft only (49 : 30 L

CFR 175.75)

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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.

Other information : No supplementary information available.

SECTION 15: Regulatory information

15.1. US Federal regulations

Trichloroacetic Acid, 80% w/v

SARA Section 311/312 Hazard Classes Immed

Immediate (acute) health hazard

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 Ac	id (76-03-9)
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SARA Section 311/312 Hazard Classes Immediate (acute) health hazard

15.2. International regulations

CANADA

Trichloroacetic Acid (76-03-9)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

Trichloroacetic Acid (76-03-9)

Listed on the Canadian IDL (Ingredient Disclosure List)

15.3. US State regulations

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.

Trichloroacetic Acid (76-03-	·9)			
U.S California - Proposition 65 - Carcinogens List	U.S California - Proposition 65 - Developmental Toxicity	U.S California - Proposition 65 - Reproductive Toxicity - Female	U.S California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
Yes	No	No	No	

SECTION 16: Other information

Revision date : 05/15/2018
Other information : None.

Full text of H-phrases: see section 16:

text of 11 priladed. dec decitor 10.	
H314	Causes severe skin burns and eye damage
H318	Causes serious eye damage
H351	Suspected of causing cancer

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NFPA health hazard	: 3 - Materials that, under emergency conditions, can cause serious or permanent 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	: 3 Serious Hazard - Major injury likely unless prompt action is taken and medical treatment is given
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

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Information in this SDS is from available published sources and is believed to be accurate. No warranty, express or implied, is made and LabChem Inc assumes no liability resulting from the use of this SDS. The user must determine suitability of this information for his application.

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

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