AnalytiChem Belgium NV
Industriezone “De Arend” 2
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SAFETY DATA SHEET

1. Identification of the substance / preparation and company.

1.1 Product identifier

Product Nr.	CL02.2003
Trade name	Trichloroacetic acid 20% w/v solution
REACH Registration Number	01-2119485186-30
CAS-No.	76-03-9

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

Identified uses: Reagent for analysis
In compliance with the conditions described in the annex to this safety data sheet.

1.3 Information provided by AnalytiChem Belgium NV product service.

Responsible department: AnalytiChem Belgium NV
Industriezone "De Arend" 2
B-8210 Zedelgem
BELGIUM
Tel. +32 50 28 83 20 e-mail: info.be@analytichem.com

1.4 Emergency telephone: 00 (32) 50.28.83.20

2. Hazard identification

2.1 Classification of the substance or the mixture (EG 1272/2008)

Skin corrosion/irritation, H314
Specific target organ toxicity - single exposure, Categorie 3, H335
Hazardous to the aquatic environment, Categorie 1, H411

For the full text of H-sentences mentioned in this Section, see Section 16

For the full text of R-sentences mentioned in this Section, see Section 16

2.2 GHS-Labelling

GHS-Labelling Labelling (REGULATION (EC) No 1272/2008) (EG 1272/2008)
Hazard pictograms:

Signal word:
Danger :

Hazard statements:

H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H411	Toxic to aquatic life with long lasting effects.

Precautionary statements:

P273	Avoid release to the environment.

P280	Wear protective gloves, protective clothing, eye protection, face protection.
P301 + P330 + P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P309 + P311	IF exposed or if you feel unwell: Call a POISON CENTER or doctor/physician.

Reduced labelling
Hazard pictograms:

Signal word:
Danger :

Hazard statements:

H314	Causes severe skin burns and eye damage.

Precautionary statements:

P280	Wear protective gloves, protective clothing, eye protection, face protection.
P301 + P330 +P331	P301 + P330 +P331
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P309 + P310	IF exposed or if you feel unwell: Immediately call a POISON CENTER or doctor/physician.

3. Composition / Information on ingredients.

3.1 Substance

Not applicable

3.2 Mixture

CAS-No.	76-03-9
EC-Nr	200-927-2
Index-No	607-004-00-7
Formula	C2HCl3O2/H2O

4. First aid measures.

4.1 Description of first aid measures

General advice

First-aid personnel: ensure self-protection!

After inhalation: Remove to fresh air, seek medical advice.

After contact with skin: Wash off with plenty of water. Remove contaminated clothing.

After contact with eyes: Rinse out with plenty of water for at least 10 minutes with the eyelid held wide open. Immediately call an ophtalmologist.

After ingestion: Never give anything by mouth to an unconscious person. Make victim drink water (two glasses at most), avoid vomiting (risk of perforation!). Immediately call in physician. Do not attempt to neutralize.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labeling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

No data available

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5. Fire fighting measures.

5.1 Extinguishing media

Suitable extinguishing media

In adaption to materials stored in the immediate neighbourhood.

Unsuitable extinguishing media

Contain escaping vapours with water. Prevent fire-fighting water from entering surface water or groundwater.

5.2 Special hazards arising from substance or mixture

Non-combustible. Ambient fire may liberate hazardous vapours.

5.3 Advice for firefighters

Do not stay in dangerous zone without self-contained breathing apparatus. In order to avoid contact with skin, keep a safety distance and wear suitable protective clothing.

5.4 Further information

No data available

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6. Accidental release measures.

6.1 Personal precautions, protective equipment and emergency procedures

Avoid substance contact. Avoid generation of dusts, do not inhale dusts. Ensure supply of fresh air in enclosed rooms.

For personal protection see section 8.

6.2 Environmental precautions

Do not allow to enter sewerage system.

6.3 Methods and materials for containment and cleaning up

Use sand or vermiculite and place in a closed container for disposal.

6.4 Reference to other sections

For disposal see section 13.

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7. Handling and storage.

7.1 Precautions for safe handling

No special measures necessary. The product should be handled with the care usual when dealing with chemicals.

For precautions see section 2.2

7.2 Conditions for safe storage, including any incompatibilities

Tightly closed.

Recommended storage temperature see product label.

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

8. Exposure controls - Personal protection.

8.1 Control parameters

8.2 Exposure controls

Engineering measures
Protective clothing should be selected specificlly for the working place, depending on concentration and quantity of the hazardous substances handled. The resistance of the protective clothing to chemicals should be ascertained with the respective supplier.

See section 7.1

Individual protection measures
Immediately change contaminated clothing. Apply skin- protective barrier cream. Wash hands and face after working with substance. Under no circumstances eat or drink at workplace. Work under hood . Do not inhale substance.

Respiratory protections
Required when vapours/aerosols are generated.
The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

Eye protection
Required.

Hand protection
Required.

Body protection
Required.

Environmental exposure controls
Do not allow to enter sewerage system.

9. Physical and chemical properties.

9.1 Information on basic physical

Appearence	
Form:	Liquid
Colour:	Colourless
Odour:	Odourless
Changes in physical state	
Melting Point:	0°C
Boiling point:	100°C
Flash point:	-
Self Ignation temperature:	-
Mol. Weight:	163.39 g/mol
Density:	1,12 g/ml
pH value:	pH < 1
Solubility in water:	soluble
Explosion limits:	

9.2 Other data
No further relevant information available.

10. Stability and reactivity.

10.1 Reactivity

See section 10.3

10.2 Chemical stability

No further relevant information available.

10.3 Possibility of hazardous reactions

Heat-sensitive.

10.4 Conditions to avoid

No further relevant information available.

10.5 Incompatible materials

No further relevant information available.

10.6 Hazardous decomposition products

No further relevant information available.

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11. Toxicological information.

11.1 Information on toxicological effects

Acute oral toxity
LD50 orl. rat 3320 mg/kg

Acute inhalation toxity
No further relevant information available.

Acute dermal toxity
No further relevant information available.

Skin irritation
No further relevant information available.

Eye irritation
No further relevant information available.

Sensitisation
No further relevant information available.

Germ cell mutagenicity
No further relevant information available.

Carcinogenicity
No further relevant information available.

Reproductive toxity
No further relevant information available.

Teratogenicity
No further relevant information available.

Specific target organ toxity - single exposure
No further relevant information available.

Specific target organ toxity - repeated exposure
No further relevant information available.

Aspiration hazard
No further relevant information available.

11.2 Further information

No further relevant information available.
Further data:
Handle in accordance with good industrial hygiene and safety practice..

12. Ecological information.

12.1 Toxity
No further relevant information available.

12.2 Persistence and degradability
No further relevant information available.

12.3 Bioaccumulative potential
No further relevant information available.

12.4 Mobility in soil
No further relevant information available.

12.5 Results of PBT and vPvB assessment
No further relevant information available.

12.6 Other adverse effects
Do not allow to enter waters, waste water, or soil!

13. Disposal considerations.

Product: Chemicals must be disposed of in compliance with the respective national regulations. Packaging: Chem-lab product packaging must be disposed of in compliance with the country-specific regulations or must be passed to a packaging return system.

14. Transport information.

Land Transport (ADR/RID)

14.1 UN number	UN 1839
14.2 Proper shipping name	Trichloroacetic acid
14.3 Class	8
14.4 Packing group	II
14.5 Environmentally hazardous	yes
14.6 Special precautions for user	yes
Tunnel restriction code	(E)

Inland waterway transport (ADN)
Not relevant

Air Transport (IATA)

14.1 UN number	UN 1839
14.2 Proper shipping name	Trichloroacetic acid
14.3 Class	8
14.4 Packing group	II
14.5 Environmentally hazardous	yes
14.6 Special precautions for user	yes

Sea Transport (IMDG)

14.1 UN number	UN 1839
14.2 Proper shipping name	Trichloroacetic acid
14.3 Class	8
14.4 Packing group	II
14.5 Environmentally hazardous	yes
14.6 Special precautions for user	yes

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

Not relevant

15. Regulatory information.

15.1 Safety, health and environmental regulations/legislation speficic for the substance or mixture

For this product an assessment was not carried out.

15.2 Chemical Safety Assesment

For this product an assessment was not carried out.

16. Other information.

The information and recommendations in this MSDS are to the best of our knowledge, information and belief accurate at the date of publications. Although outmost care has been taken in the composition of this text, the publisher cannot be held responsible for any damage resulting from any possible error in this publications.

Full text of H-Statements referred to under sections 2 and 3.

H314 Causes severe skin burns and eye damage.

H335 May cause respiratory irritation.

H411 Toxic to aquatic life with long lasting effects.