

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Triethanolamine solution 20 % (m/V) for the colorimetric determination of manganese with the Seres..

Revision date: 29.05.2024

Product code: 33975

Page 1 of 11

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

1.1. Product identifier

Triethanolamine solution 20 % (m/V) for the colorimetric determination of manganese with the Seres..

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

Use of the substance/mixture

Laboratory chemicals

Industrial uses: Uses of substances as such or in preparations at industrial sites

Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

Uses advised against

Do not use for private purposes (household).

1.3. Details of the supplier of the safety data sheet

Company name:	AnalytiChem GmbH	
	ACD	
Street:	Stempelstraße 6	
Place:	D-47167 Duisburg	
Telephone:	0203/5194-0	Telefax: 0203/5194-290
E-mail:	info@analytichem.de	
Contact person:	Abteilung Produktsicherheit	Telephone: 0203/5194-107/117
E-mail:	produktsicherheit@analytichem.de	
Internet:	www.analytichem.de	
Responsible Department:	Abteilung Produktsicherheit	

1.4. Emergency telephone number:

For Hazardous Materials [or Dangerous Goods] Incidents Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300 Outside USA and Canada: +1 703-741-5970 (collect calls accepted)

Further Information

This product is a mixture. REACH Registration Number see section 3.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

This mixture is not classified as hazardous in accordance with Regulation (EC) No 1272/2008.

2.2. Label elements

2.3. Other hazards

No data available

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

Mixtures in aqueous solution

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Triethanolamine solution 20 % (m/V) for the colorimetric determination of manganese with the Seres..

Revision date: 29.05.2024

Product code: 33975

Page 2 of 11

Relevant ingredients

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (Regulation (EC) No 1272/2008)			
102-71-6	Triethanolamine			20 - < 25 %
	203-049-8		01-2119486482-31	

Full text of H and EUH statements: see section 16.

Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
		Specific Conc. Limits, M-factors and ATE	
102-71-6	203-049-8	Triethanolamine	20 - < 25 %
	dermal: LD50 = > 2000 mg/kg; oral: LD50 = 6400 mg/kg		

Further Information

This product does not contain substances of very high concern according to Regulation (EC) No 1907/2006 (REACH), Article 57 above the respective regulatory concentration limit of = 0.1 % (w/w).

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

No data available

After inhalation

Provide fresh air.

After contact with skin

Wash immediately with: Water

Take off immediately all contaminated clothing and wash it before reuse.

After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water.

Remove contact lenses, if present and easy to do. Continue rinsing.

After ingestion

Rinse mouth immediately and drink plenty of water.

Call a physician immediately.

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

Cough, Abdominal pain, Dizziness

Unconsciousness, Gastrointestinal complaints, Vomiting

Circulatory collapse

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

No data available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Foam

Carbon dioxide (CO₂)

Extinguishing powder

Water

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Triethanolamine solution 20 % (m/V) for the colorimetric determination of manganese with the Seres..

Revision date: 29.05.2024

Product code: 33975

Page 3 of 11

Unsuitable extinguishing media

no restriction

5.2. Special hazards arising from the substance or mixture

Combustible liquids

Hazardous combustion products

In case of fire may be liberated:

Carbon dioxide (CO₂) Carbon monoxide

Nitrogen oxides (NO_x)

In case of warming:

Vapours are heavier than air, spread along floors and form explosive mixtures with air.

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.

Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

Move undamaged containers from immediate hazard area if it can be done safely.

Use water spray jet to protect personnel and to cool endangered containers.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General advice

In case of warming:

Vapours are heavier than air, spread along floors and form explosive mixtures with air.

For non-emergency personnel

Provide adequate ventilation.

Use personal protection equipment.

Avoid contact with skin, eyes and clothes.

Remove persons to safety.

Emergency procedures

Consult an expert

Do not breathe dust/fume/gas/mist/vapours/spray.

For emergency responders

Precautionary statements For emergency responders : Personal protection equipment: see section 8

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

For containment

Cover drains.

Prevent spread over a wide area (e.g. by containment or oil barriers).

Collect in closed and suitable containers for disposal.

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

For cleaning up

Clean contaminated articles and floor according to the environmental legislation.

Other information

Provide adequate ventilation.

Do not breathe dust/fume/gas/mist/vapours/spray.

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Triethanolamine solution 20 % (m/V) for the colorimetric determination of manganese with the Seres..

Revision date: 29.05.2024

Product code: 33975

Page 4 of 11

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

- Handle and open container with care.
- When using do not eat, drink, smoke, sniff.
- Keep container tightly closed.
- Use personal protection equipment.
- Provide adequate ventilation.
- Do not breathe vapour/aerosol.

Advice on protection against fire and explosion

- Usual measures for fire prevention.
- In case of warming:
- Vapours are heavier than air, spread along floors and form explosive mixtures with air.

Advice on general occupational hygiene

- Keep away from food, drink and animal feedingstuffs.
- The choice of body protection depends on the concentration and quantity of hazardous substances. The chemical resistance of protective agents must be clarified with their suppliers.

Further information on handling

- Take off immediately all contaminated clothing and wash it before reuse.
- Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. If handled uncovered, arrangements with local exhaust ventilation have to be used.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

- Store in a well-ventilated place.
- Keep container tightly closed.

Hints on joint storage

- No data available

Further information on storage conditions

- Keep cool. Protect from sunlight.

7.3. Specific end use(s)

- Laboratory chemicals

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

CAS No	Substance	ppm	mg/m ³	fib/cm ³	Category	Origin
102-71-6	Triethanolamine	-	5		TWA (8 h)	

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Triethanolamine solution 20 % (m/V) for the colorimetric determination of manganese with the Seres..

Revision date: 29.05.2024

Product code: 33975

Page 5 of 11

DNEL/DMEL values

CAS No	Substance	Exposure route	Effect	Value
102-71-6	Triethanolamine			
Consumer DNEL, long-term		inhalation	local	1,25 mg/m ³
Worker DNEL, long-term		inhalation	systemic	5 mg/m ³
Worker DNEL, long-term		inhalation	local	5 mg/m ³
Worker DNEL, long-term		dermal	systemic	6,3 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	1,25 mg/m ³
Consumer DNEL, long-term		dermal	systemic	3,1 mg/kg bw/day
Consumer DNEL, long-term		oral	systemic	13 mg/kg bw/day

PNEC values

CAS No	Substance	Value
102-71-6	Triethanolamine	
Freshwater		0,32 mg/l
Freshwater (intermittent releases)		5,12 mg/l
Marine water		0,032 mg/l
Freshwater sediment		1,7 mg/kg
Marine sediment		0,17 mg/kg
Micro-organisms in sewage treatment plants (STP)		10 mg/l
Soil		0,151 mg/kg

8.2. Exposure controls

Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over personal protection equipment.

If handled uncovered, arrangements with local exhaust ventilation have to be used.

Individual protection measures, such as personal protective equipment

Eye/face protection

goggles

Face protection umbrella

Hand protection

Protective gloves are recommended Company KCL GmbH, D-36124 Eichenzell, email: vertrieb@kcl.de With specification (test according to EN374):

By long-term hand contact

Recommended glove articles: KCL 730 Camatril® Velours

Recommended material: NBR (Nitrile rubber) 0,4 mm

Wearing time with permanent contact: > 480 min

By short-term hand contact

Recommended glove articles: KCL 730 Camatril® Velours

Recommended material: NBR (Nitrile rubber) 0,4 mm

Wearing time with occasional contact (splashes): > 480 min

The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Triethanolamine solution 20 % (m/V) for the colorimetric determination of manganese with the Seres..

Revision date: 29.05.2024

Product code: 33975

Page 6 of 11

of the recommended glove types. This recommendation applies only to the product stated in the safety data sheet supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Skin protection

Take off immediately all contaminated clothing and wash it before reuse.
Wear fire resistant or flame retardant clothing.
Wash hands and face before breaks and after work and take a shower if necessary.
Draw up and observe skin protection programme.

Respiratory protection

Respiratory protection necessary at: aerosol or mist formation
The entrepreneur 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.

Thermal hazards

No data available

Environmental exposure controls

Do not allow to enter into surface water or drains.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	Liquid	
Colour:	light yellow	
Odour:	like: Amines	
Odour threshold:	No data available	
Melting point/freezing point:		No data available
Boiling point or initial boiling point and boiling range:		No data available
Flammability:		No data available
Lower explosion limits:		No data available
Upper explosion limits:		No data available
Flash point:		No data available
Auto-ignition temperature:		No data available
Decomposition temperature:		No data available
pH-Value:		No data available
Viscosity / kinematic:		No data available
Water solubility:		Soluble in: Water
Solubility in other solvents		
No data available		
Dissolution rate:		No data available
Partition coefficient n-octanol/water:		No data available
Vapour pressure:		No data available
Vapour pressure:		No data available
Density:		No data available
Relative density:		No data available
Bulk density:		No data available
Relative vapour density:		No data available
Particle characteristics:		No data available

9.2. Other information

Information with regard to physical hazard classes

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Triethanolamine solution 20 % (m/V) for the colorimetric determination of manganese with the Seres..

Revision date: 29.05.2024

Product code: 33975

Page 7 of 11

Explosive properties

In case of warming:

Vapours are heavier than air, spread along floors and form explosive mixtures with air.

Sustaining combustion:

No data available

Self-ignition temperature

Solid:

No data available

Gas:

No data available

Oxidizing properties

No data available

Other safety characteristics

Evaporation rate:

No data available

Solvent separation test:

No data available

Solvent content:

No data available

Solid content:

No data available

Sublimation point:

No data available

Softening point:

No data available

Pour point:

No data available

Viscosity / dynamic:

No data available

Flow time:

No data available

Further Information

No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

In case of warming:

Vapours may form explosive mixtures with air.

10.2. Chemical stability

Protect against: Air

10.3. Possibility of hazardous reactions

Oxidising agent

Acid

10.4. Conditions to avoid

Heat

10.5. Incompatible materials

Light metal

Metal

10.6. Hazardous decomposition products

SECTION 5: Firefighting measures

Further information

No data available

SECTION 11: Toxicological information

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

Toxicokinetics, metabolism and distribution

There are no data available on the mixture itself.

Acute toxicity

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

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Triethanolamine solution 20 % (m/V) for the colorimetric determination of manganese with the Seres..

Revision date: 29.05.2024

Product code: 33975

Page 8 of 11

ATEmix calculated

ATE (oral) > 2000 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) > 20 mg/l; ATE (inhalation dust/mist) > 5 mg/l

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
102-71-6	Triethanolamine				
	oral	LD50 6400 mg/kg	Rat	Study report (1966)	OECD Guideline 401
	dermal	LD50 > 2000 mg/kg	Rabbit	Other company data (1989)	OECD Guideline 402

Irritation and corrosivity

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

Serious eye damage/eye irritation: Based on available data, the classification criteria are not met.

Sensitising effects

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

Carcinogenic/mutagenic/toxic effects for reproduction

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

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

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

STOT-single exposure

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

Liver and kidney damage

STOT-repeated exposure

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

Aspiration hazard

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

Information on likely routes of exposure

There are no data available on the mixture itself.

Specific effects in experiment on an animal

There are no data available on the mixture itself.

Additional information on tests

There are no data available on the mixture itself.

Practical experience

There are no data available on the mixture itself.

11.2. Information on other hazards

Endocrine disrupting properties

There are no data available on the mixture itself.

Other information

Liver and kidney damage

Further information

Cough, Abdominal pain, Dizziness

Unconsciousness, Gastrointestinal complaints, Vomiting

Circulatory collapse

SECTION 12: Ecological information

12.1. Toxicity

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

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Triethanolamine solution 20 % (m/V) for the colorimetric determination of manganese with the Seres..

Revision date: 29.05.2024

Product code: 33975

Page 9 of 11

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
102-71-6	Triethanolamine					
	Acute fish toxicity	LC50 mg/l	11800	96 h	Pimephales promelas	Publication (1990) other: APHA method
	Acute algae toxicity	ErC50	512 mg/l	72 h	Desmodesmus subspicatus	Preliminary Report 82-102 05 308. Bayeri other: German Industrial Standard DIN 38
	Acute crustacea toxicity	EC50 mg/l	609,88	48 h	Ceriodaphnia dubia	Ecotoxicol Environ Saf 44(2), 196-206. (other: New South Wales Government Envir
	Crustacea toxicity	NOEC	16 mg/l	21 d	Daphnia magna	Water Research 23(4): 501-510. (1989) other: Provisional proposal by German Fe

12.2. Persistence and degradability

Readily biodegradable (according to OECD criteria).

12.3. Bioaccumulative potential

No indication of bioaccumulation potential.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
102-71-6	Triethanolamine	-2,3

BCF

CAS No	Chemical name	BCF	Species	Source
102-71-6	Triethanolamine	< 0,4	Cyprinus carpio	Publication (1992)

12.4. Mobility in soil

There are no data available on the mixture itself.

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

12.7. Other adverse effects

Do not allow to enter into surface water or drains.

Further information

Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.

Do not empty into drains.

Contaminated packaging

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

SECTION 14: Transport information

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Triethanolamine solution 20 % (m/V) for the colorimetric determination of manganese with the Seres..

Revision date: 29.05.2024

Product code: 33975

Page 10 of 11

Land transport (ADR/RID)

14.1. UN number or ID number:	No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name:	No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es):	No dangerous good in sense of this transport regulation.
14.4. Packing group:	No dangerous good in sense of this transport regulation.

Inland waterways transport (ADN)

14.1. UN number or ID number:	No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name:	No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es):	No dangerous good in sense of this transport regulation.
14.4. Packing group:	No dangerous good in sense of this transport regulation.

Marine transport (IMDG)

14.1. UN number or ID number:	No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name:	No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es):	No dangerous good in sense of this transport regulation.
14.4. Packing group:	No dangerous good in sense of this transport regulation.

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number:	No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name:	No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es):	No dangerous good in sense of this transport regulation.
14.4. Packing group:	No dangerous good in sense of this transport regulation.

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user

No dangerous good in sense of this transport regulation.

14.7. Maritime transport in bulk according to IMO instruments

No dangerous good in sense of this transport regulation.

SECTION 15: Regulatory information

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

EU regulatory information

Information according to Directive 2012/18/EU (SEVESO III): Not subject to 2012/18/EU (SEVESO III)

National regulatory information

Water hazard class (D): 1 - slightly hazardous to water

SECTION 16: Other information

Changes

This data sheet contains changes from the previous version in section(s): 12.

Further Information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights.

The receiver of our product is singularly responsible for adhering to existing laws and regulations.

Provide appropriate information, instructions and training to users

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Triethanolamine solution 20 % (m/V) for the colorimetric determination of manganese with the Seres..

Revision date: 29.05.2024

Product code: 33975

Page 11 of 11

(The data for the relevant ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)