

## Safety Data Sheet

acc. to 29 CFR 1910.1200 App D

### MICRO 90® Concentrated Cleaning Solution

Date of issue: April 1, 2020

Replaces version of: October 1, 2019

#### SECTION 1: Identification

##### 1.1 Product identifier

Trade name **MICRO 90®**  
Other means of identification Catalog #'s 99999-14; 18100-04; 18100-05; 18100-11; 18100-20; 18100-30

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

Relevant identified uses Industrial use  
Do not use for private purposes (household)

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

Cole-Parmer Instrument Company  
625 East Bunker Court  
Vernon Hills, IL  
60061  
United States  
800-323-4340

##### 1.4 Emergency telephone number

Emergency information service 1-609-386-8770  
This number is only available during the following office hours: Mon-Fri 08:00 AM - 04:30 PM, Eastern Time

#### SECTION 2: Hazard(s) identification

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

Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

Section	Hazard class	Category	Hazard class and category	Hazard statement
A.9	specific target organ toxicity - repeated exposure	2	STOT RE 2	H373

For full text of abbreviations: see SECTION 16

The most important adverse physicochemical, human health and environmental effects

Delayed or immediate effects can be expected after short or long-term exposure

##### 2.2 Label elements

Labelling acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

- Signal word warning

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### - Pictograms

GHS08



### Hazard statements.

H373 May cause damage to organs through prolonged or repeated exposure

### - Precautionary statements

P260 Do not breathe dust/fume/gas/mist/vapors/spray.  
 P314 Get medical advice/attention if you feel unwell.  
 P501 Dispose of contents/container to industrial combustion plant.

- Hazardous ingredients for labelling Tetrasodium ethylenediaminetetraacetate

## 2.3 Other hazards

Hazards not otherwise classified

Harmful to aquatic life (GHS category 3: aquatic toxicity - acute).

Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.





## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Not relevant (mixture)

### 3.2 Mixtures

Description of the mixture

Name of substance	Identifier	Wt%	Classification acc. to GHS	Pictograms
Tetrasodium ethylenediaminetetraacetate	CAS No 64-02-8	10 - < 25	Acute Tox. 4 / H302Acute Tox. 4 / H332Eye Dam. 1 / H318STOT RE 2 / H373Aquatic Acute 3 / H402	
Ammonium Xylene Sulfonate	CAS No 26447-10-9	5 - < 10	Acute Tox. 5 / H313Eye Irrit. 2 / H319	
Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs., compds. with triethanolamine	CAS No 68584-25-8	5 - < 10	Acute Tox. 5 / H303Skin Corr. 1C / H314Eye Dam. 1 / H318Aquatic Chronic 3 / H412	
sodium hydroxide	CAS No 1310-73-2	0.1 - < 1	Skin Corr. 1A / H314Eye Dam. 1 / H318Aquatic Acute 3 / H402Aquatic Chronic 3 / H412	

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#### SECTION 4: First-aid measures

##### 4.1 Description of first- aid measures

###### General notes

Do not leave affected person unattended. Remove victim out of the danger area. Keep affected person warm, still and covered. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness place person in the recovery position. Never give anything by mouth.

###### Following inhalation

If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. Provide fresh air.

###### Following skin contact

Wash with plenty of soap and water.

###### Following ingestion

Rinse mouth with water (only if the person is conscious). Do NOT induce vomiting.

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

Symptoms and effects are not known to date.

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

none

#### SECTION 5: Fire-fighting measures

##### 5.1 Extinguishing media

###### Suitable extinguishing media

Water spray, Alcohol resistant foam, BC-powder, Carbon dioxide (CO<sub>2</sub>)

###### Unsuitable extinguishing media

Water jet

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

###### Hazardous combustion products

Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>)

##### 5.3 Advice for firefighters

Coordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance.

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#### SECTION 6: Accidental release measures

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

For non-emergency personnel

Remove persons to safety.

For emergency responders

Wear breathing apparatus if exposed to vapors/dust/aerosols/gases.

##### 6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it.

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

Advice on how to clean up a spill

Wipe up with absorbent material (e.g. cloth, fleece) Collect spillage: Sawdust, Kieselgur (diatomite), Sand, Universal binder

Appropriate containment techniques

Use of adsorbent materials.

##### 6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

#### SECTION 7: Handling and storage

##### 7.1 Precautions for safe handling

Recommendations

- Measures to prevent fire as well as aerosol and dust generation

Use local and general ventilation. Use only in well-ventilated areas.

Advice on general occupational hygiene

Wash hands after use. Do not eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feedingstuffs.

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

- Specific designs for storage rooms or vessels

- Storage temperature

Recommended storage temperature: 2 – 43 °C

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#### SECTION 8: Exposure controls/personal protection

##### 8.1 Control parameters

This information is not available

Relevant DNELs of components of the mixture						
Name of substance	CAS No	Endpoint	Threshold level	Protection goal, route of exposure	Used in	Exposure time
Tetrasodium ethylene-diaminetetraacetate	64-02-8	DNEL	1.5 mg/m <sup>3</sup>	human, inhalatory	worker (industry)	chronic - local effects
Tetrasodium ethylene-diaminetetraacetate	64-02-8	DNEL	3 mg/m <sup>3</sup>	human, inhalatory	worker (industry)	acute - local effects
Ammonium Xylene Sulfonate	26447-10-9	DNEL	26.9 mg/m <sup>3</sup>	human, inhalatory	worker (industry)	chronic - systemic effects
Ammonium Xylene Sulfonate	26447-10-9	DNEL	136.3 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs., compds. with triethanolamine	68584-25-8	DNEL	4.1 mg/m <sup>3</sup>	human, inhalatory	worker (industry)	chronic - systemic effects
Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs., compds. with triethanolamine	68584-25-8	DNEL	5.29 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects

Relevant PNECs of components of the mixture						
Name of substance	CAS No	Endpoint	Threshold level	Organism	Environmental compartment	Exposure time
Tetrasodium ethylene-diaminetetraacetate	64-02-8	PNEC	2.2 mg/l	aquatic organisms	freshwater	short-term (single instance)
Tetrasodium ethylene-diaminetetraacetate	64-02-8	PNEC	0.22 mg/l	aquatic organisms	marine water	short-term (single instance)
Tetrasodium ethylene-diaminetetraacetate	64-02-8	PNEC	43 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
Tetrasodium ethylene-diaminetetraacetate	64-02-8	PNEC	0.72 mg/kg	terrestrial organisms	soil	short-term (single instance)
Ammonium Xylene Sulfonate	26447-10-9	PNEC	0.23 mg/l	aquatic organisms	freshwater	short-term (single instance)
Ammonium Xylene Sulfonate	26447-10-9	PNEC	0.023 mg/l	aquatic organisms	marine water	short-term (single instance)
Ammonium Xylene Sulfonate	26447-10-9	PNEC	100 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)

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Relevant PNECs of components of the mixture						
Name of substance	CAS No	Endpoint	Threshold level	Organism	Environmental compartment	Exposure time
Ammonium Xylene Sulfonate	26447-10-9	PNEC	0.862 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
Ammonium Xylene Sulfonate	26447-10-9	PNEC	0.086 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
Ammonium Xylene Sulfonate	26447-10-9	PNEC	0.037 mg/kg	terrestrial organisms	soil	short-term (single instance)
Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs., compds. with triethanolamine	68584-25-8	PNEC	0.268 mg/l	aquatic organisms	freshwater	short-term (single instance)
Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs., compds. with triethanolamine	68584-25-8	PNEC	0.027 mg/l	aquatic organisms	marine water	short-term (single instance)
Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs., compds. with triethanolamine	68584-25-8	PNEC	7 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs., compds. with triethanolamine	68584-25-8	PNEC	8.1 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs., compds. with triethanolamine	68584-25-8	PNEC	8.1 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs., compds. with triethanolamine	68584-25-8	PNEC	35 mg/kg	terrestrial organisms	soil	short-term (single instance)

## 8.2 Exposure controls

Appropriate engineering controls

General ventilation

Individual protection measures (personal protective equipment)

Eye/face protection

Wear eye/face protection.

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#### Skin protection

##### - Hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. Check leak-tightness/impermeability prior to use. In the case of wanting to use the gloves again, clean them before taking off and air them well. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

##### - Other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling.

#### Respiratory protection

In case of inadequate ventilation wear respiratory protection.

#### Environmental exposure controls

Use appropriate container to avoid environmental contamination. Keep away from drains, surface and ground water.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### Appearance

Physical state	liquid
Color	colorless-clear-light yellow
Odor	like ammonia

#### Other safety parameters

pH (value)	9 – 9.9 (25 °C)
Melting point/freezing point	-8 °C
Initial boiling point and boiling range	100 °C
Flash point	not determined
Evaporation rate	not determined
Flammability (solid, gas)	not relevant, (fluid)
Explosive limits	not determined
Vapor pressure	0.05 mmHg

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Density	1.13 – 1.145 g/cm <sup>3</sup> at 25 °C
Vapor density	this information is not available
Solubility(ies)	
- Water solubility	miscible in any proportion
Partition coefficient	
- n-octanol/water (log KOW)	this information is not available
Auto-ignition temperature	not determined
Viscosity	
- Kinematic viscosity	8.734 mm <sup>2</sup> /s
- Dynamic viscosity	10 mPa s at 25 °C
Explosive properties	none
Oxidizing properties	none

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials".

### 10.2 Chemical stability

Shelf-life: Five years from the date of manufacture.

### 10.3 Possibility of hazardous reactions

No known hazardous reactions.

### 10.4 Conditions to avoid

Do not mix with other chemicals.

### 10.5 Incompatible materials

Avoid extended contact with uncured paint, zinc, aluminum, cold rolled steel, or copper and its alloys. Avoid contact with polycarbonate, polymethyl methacrylate, and polyphenylene oxide as these plastics may craze over time. Refer to product's compatibility sheets for further details.



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#### 10.6 Hazardous decomposition products

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. Hazardous combustion products: see section 5.

### SECTION 11: Toxicological information

#### 11.1 Information on toxicological effects

Basis of test data.

##### Classification procedure

The classification is based on tested mixture.

##### Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

##### Acute toxicity

Shall not be classified as acutely toxic.

Acute toxicity estimate (ATE) of components of the mixture			
Name of substance	CAS No	Exposure route	ATE
Tetrasodium ethylenediaminetetraacetate	64-02-8	oral	1,913 mg/kg
Tetrasodium ethylenediaminetetraacetate	64-02-8	inhalation: dust/mist	1.5 mg/l/4h

##### Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin.

##### Serious eye damage/eye irritation

Shall not be classified as seriously damaging to the eye or eye irritant.

##### Respiratory or skin sensitization

Shall not be classified as a respiratory or skin sensitizer.

##### Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

##### Carcinogenicity

Shall not be classified as carcinogenic.

##### Reproductive toxicity

Shall not be classified as a reproductive toxicant.

##### Specific target organ toxicity - single exposure

Shall not be classified as a specific target organ toxicant (single exposure).

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Specific target organ toxicity - repeated exposure

May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

## SECTION 12: Ecological information

### 12.1 Toxicity

Harmful to aquatic life.

Aquatic toxicity (acute)

Endpoint	Value	Species	Exposure time
EC50	47 mg/l	fathead minnow	48 h

Aquatic toxicity (acute) of components of the mixture

Name of substance	CAS No	Endpoint	Value	Species	Exposure time
Tetrasodium ethylene-diaminetetraacetate	64-02-8	LC50	41 mg/l	fish	96 h
Tetrasodium ethylene-diaminetetraacetate	64-02-8	EC50	140 mg/l	aquatic invertebrates	48 h
Ammonium Xylene Sulfonate	26447-10-9	LC50	>1,000 mg/l	fish	96 h
Ammonium Xylene Sulfonate	26447-10-9	EC50	>1,000 mg/l	aquatic invertebrates	48 h

### 12.2 Persistence and degradability

Data are not available.

### 12.3 Bioaccumulative potential

Data are not available.

### 12.4 Mobility in soil

Data are not available.

### 12.5 Results of PBT and vPvB assessment

Data are not available.

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#### 12.6 Other adverse effects

Endocrine disrupting potential

None of the ingredients are listed.

### SECTION 13: Disposal considerations

#### 13.1 Waste treatment methods

Sewage disposal-relevant information

May be disposed according to local, state and federal regulations.

Waste treatment of containers/packages

Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

#### Remarks

Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

### SECTION 14: Transport information

14.1	UN number	not assigned
14.2	UN proper shipping name	not assigned
14.3	Transport hazard class(es)	not assigned
14.4	Packing group	not assigned
14.5	Environmental hazards	non-environmentally hazardous acc. to the dangerous goods regulations
14.6	Special precautions for user	There is no additional information.

### SECTION 15: Regulatory information

#### 15.1 Safety, health and environmental regulations specific for the product in question

##### National regulations (United States)

**Toxic Substance Control Act (TSCA)** all ingredients are listed

##### Superfund Amendment and Reauthorization Act (SARA TITLE III )

- The List of Extremely Hazardous Substances and Their Threshold Planning Quantities (EPCRA Section 302, 304)

None of the ingredients are listed.

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#### - Specific Toxic Chemical Listings (EPCRA Section 313)

None of the ingredients are listed

#### Clean Air Act

None of the ingredients are listed.

#### Industry or sector specific available guidance(s)

#### NPCA-HMIS® III

Hazardous Materials Identification System American Coatings Association

Category	Rating	Description
Chronic	*	chronic (long-term) health effects may result from repeated overexposure
Health	0	no significant risk to health
Flammability	0	material that will not burn under typical fire conditions
Physical hazard	0	material that is normally stable, even under fire conditions, and will not react with water, polymerize, decompose, condense, or self-react. Non-explosive
Personal protection	-	

#### NFPA® 704

National Fire Protection Association: Standard System for the Identification of the Hazards of Materials for Emergency Response (United States)

Category	Degree of hazard	Description
Flammability	0	material that will not burn under typical fire conditions
Health	0	material that, under emergency conditions, would offer no hazard beyond that of ordinary combustible material
Instability	0	material that is normally stable, even under fire conditions
Special hazard		

#### National inventories

Country	National inventories	Status
EU	REACH Reg.	not all ingredients are listed
US	TSCA	all ingredients are listed

#### Legend

REACH Reg. REACH registered substances  
TSCA Toxic Substance Control Act

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#### 15.2 Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

### SECTION 16: Other information, including date of preparation or last revision

#### Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
49 CFR US DOT	49 CFR U.S. Department of Transportation
Acute Tox.	Acute toxicity
Aquatic Acute	Hazardous to the aquatic environment - acute hazard
Aquatic Chronic	Hazardous to the aquatic environment - chronic hazard
ATE	Acute Toxicity Estimate
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
DGR	Dangerous Goods Regulations (see IATA/DGR)
DNEL	Derived No-Effect Level
EC50	Effective Concentration 50 %. The EC50 corresponds to the concentration of a tested substance causing 50 % changes in response (e.g. on growth) during a specified time interval
Eye Dam.	Seriously damaging to the eye
Eye Irrit.	Irritant to the eye
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
IATA	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
IMDG	International Maritime Dangerous Goods Code
LC50	Lethal Concentration 50%: the LC50 corresponds to the concentration of a tested substance causing 50 % lethality during a specified time interval
NPCA-HMIS® III	National Paint and Coatings Association: Hazardous Materials Identification System - HMIS® III, Third Edition
OSHA	Occupational Safety and Health Administration (United States)
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration
RTECS	Registry of Toxic Effects of Chemical Substances (database of NIOSH with toxicological information)
Skin Corr.	Corrosive to skin
Skin Irrit.	Irritant to skin
STOT RE	Specific target organ toxicity - repeated exposure

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Abbr.	Descriptions of used abbreviations
vPvB	Very Persistent and very Bioaccumulative

#### Key literature references and sources for data

OSHA Hazard Communication Standard (HCS), 29 CFR 1910.1200

Transport of dangerous goods by road or rail (49 CFR US DOT). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

#### Classification procedure

The classification is based on tested mixture.

#### List of relevant phrases (code and full text as stated in chapter 2 and 3)

Code	Text
H302	Harmful if swallowed.
H303	May be harmful if swallowed.
H313	May be harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H373	May cause damage to organs through prolonged or repeated exposure.
H402	Harmful to aquatic life.
H412	Harmful to aquatic life with long lasting effects.

#### Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.