

# Safety Data Sheet

## SDS acc. Hazard Communication Standard

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### Section 1: Identification

#### 1.1 Product Identifier / Product Name

REF	744866.80
Product Name	Buffer MV1 (80 mL)
-	1 x 80 mL MV1

#### 1.2 Relevant identified Uses of the Substance or Mixture and Uses advised against

**Relevant identified uses**  
 Product for Analytical Use.  
 The Exposure scenario is integrated into sections 1-16.  
**Uses advised against**  
 not described

#### 1.3 Details of the Supplier and of the Safety Data Sheet

**Manufactured by:**  
 MACHEREY-NAGEL GmbH & Co. KG  
 Neumann-Neander-Str. 6-8, 52355 Dueren, GERMANY  
 Tel.: +49 2421 969 0  
 E-mail: [sds@mn-net.com](mailto:sds@mn-net.com) ([msds@mn-net.com](mailto:msds@mn-net.com))

#### 1.4 Emergency Telephone Number

For Chemical Emergency  
 Spill, Leak, Fire, Exposure, or Accident  
 Call CHEMTREC Day or Night (CCN685047)  
 Within USA and Canada: **1-800-424-9300**  
 Outside USA and Canada: **+1 703-527-3887** (collect calls accepted)

You find our current versions of SDS (22 languages) in Internet: <http://www.mn-net.com/SDS>

### Section 2: Hazard(s) Identification

#### 2.1 Classification of the Substance(s) or Mixture(s)

80 mL MV1



GHS07

Signal Word: WARNING

Hazard Identification	Hazard Classes/Categories
H302	Acute Tox. 4 oral
H312	Acute Tox. 4 derm.
H315	Skin Irrit. 2
H319	Eye Irrit. 2
H412	Aquatic Chronic 3

#### 2.2 Safety, Health and Environmental Regulations/Legislation specific for the Substance or Mixture

According to the implementation of GHS immediate packages only must be labelled with product identifier(s), GHS symbol(s), signal word, manufacturer name and phone number (OSHA's interpretation of HCS 2012).

Harmful chemicals/mixtures with signal word: **WARNING** must not be labelled with H and P phrases **until 125 mL** (EU 1272/2008 Annex I - 1.5.2) / **until 100 mL** (Canada WHMIS 2015). This labelling exemption does not apply to U.S.A.

**80 mL MV1**

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GHS07

Signal Word: WARNING

### 2.3 Other Hazards

#### Possible Hazards from physicochemical Properties

In the case of pH values are less than 5 or higher than 9 then it is irritant. For guanidine thiocyanate CAS 593-84-0: The properties H314, H332 «Causes severe skin burns and eye damage. Harmful if inhaled.» are not relevant, because the mixture solution is buffered to pH 4-9. ---

#### Information pertaining to particular Risks to Human and possible Symptoms

Cause after oral intake, inhalation of vapors/dust, impairments of health when ingested in small quantities. ---

#### Information pertaining to particular Risks to the Environment

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#### Other Hazards

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## Section 3: Composition/Information on Ingredients

### 3.1 Substances or 3.2 Mixtures

#### 80 mL MV1

Chemical: *guanidinium thiocyanate*

CAS No.: 593-84-0

Classification: H302, Acute Tox. 4 oral, H312, Acute Tox. 4 derm., H314, Skin Corr. 1B, H332, Acute Tox. 4 inh., H412, Aquatic Chronic 3

Chemical Formula:  $C_2H_6N_4S$ 

Synonyms: guanidine rhodanide

TSCA Inventory: listed

RTECS: XL1225000

MFCD: 00013027

EC No.: 209-812-1

Indice No.: 615-004-00-3

Weight Percent: 60 - &lt;80 %

acc. GHS: H302, Acute Tox. 4 oral, H312, Acute Tox. 4 derm., H315, Skin Irrit. 2, H319, Eye Irrit. 2, H412, Aquatic Chronic 3

### 3.3 Remarks

When not listed, mixtures are added with water [CAS No. 7732-18-5] to 100%.

List of Hazard and Precaution phrases: see section 16.1

## Section 4: First-Aid Measures

### 4.1 Description of First-Aid Measures

Place insured person out of danger zone to fresh air immediately. Ensure quiet, warmth, and provide resuscitation if necessary. If necessary contact medical advice.

#### 4.1.1 After SKIN Contact

Remove contaminated clothing. Rinse the affected skin or mucous membrane thoroughly under running water. (If possible) use soap.

#### 4.1.2 After EYE Contact

After contact with the eyes rinse thoroughly under running water with the eyelid wide open with eye washing bottle, eye douche or running water (protect intact eye).

#### 4.1.3 After INHALATION of Vapors

After inhalation of foam or vapor fresh air should be inhaled. Keep airways free.

#### 4.1.4 After ORAL Intake

After oral intake lots of water should be drunk after it has been ingested.

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### 4.2 Most important Symptoms and Effects, both acute and delayed

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### 4.3 Indication of any immediate Medical Attention and Special Treatment needed

No additionally recommendations. ---

## Section 5: Fire-Fighting Measures

### 5.1 Extinguishable Media

Fire extinguishers appropriate to the fire classification, and, if applicable, a fire blanket must be available in a prominent location in the work area. All extinguishers like WATER FOG, WATER SPRAY, alcohol-resistant FOAM, DRY CHEMICAL, CARBON DIOXIDE can be used.

### 5.2 Special Hazards arising from the Substance or Mixture

Formation of hazardous and caustic vapor-air mixtures possible. ---

### 5.3 Advice for Firefighters

No, for listed product. Product package burns like paper or plastic.

### 5.4 Additional Information

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## Section 6: Accidental Release Measures

### 6.1 Personal Precautions, Protective Equipment and Emergency Procedure

Do not breathe vapors. Regular staff training is necessary.

### 6.2 Environmental Precautions

not necessary, contains only small amounts of these substances

### 6.3 Methods and Material for Containment and Cleaning up

Bind any escaping liquid with inert absorbent.  
Collect small amounts of leaked liquid and flush with water into sewer.

### 6.4 Reference to other Sections

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## Section 7: Handling and Storage

### 7.1 Precautions for Safe Handling

Handling in accordance with the test instruction, that comes with the product.

### 7.2 Conditions for Safe Storage, including any Incompatibilities

The original product package of MACHEREY-NAGEL allows a safe storage.

Storage class (VCI): 12

Water hazard class (DE): 3

#### 7.2.1 Conditions for Safe Storage, including any Incompatibilities

Keep original product packages tightly closed during handling and storage.

### 7.3 Specific End Use(s)

Product for analytical use.

## Section 8: Exposure Controls/Personal Protection

### 8.1 Control Parameters

#### 80 mL MV1

Chemical: guanidinium thiocyanate

CAS No.: 593-84-0

DNEL: [inh] 1092 µg/m<sup>3</sup>

DNEL = Derived No-Effect Level (for workers)

PNEC(fresh water): 42.4 µg/L

PNEC = Predicted No Effect Concentration

NIOSH: not listed

[TWA] Time-weighted average to a reference period of 8 hours, [STEL] Short-term exposure limit related to a 15-minute period

OSHA: not listed

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### 8.2 Exposure Controls

Good ventilation and extraction system in the room, floor resistant to chemicals with floor drainage and washing facilities. The highest level of cleanliness must be maintained at the workplace.

#### 8.2.1 Respiratory Protection

No additional recommendations.

#### 8.2.2 Hand Protection

Yes, gloves (permeation time >30 min - level 2), consist of PVC.

#### 8.2.3 Eye/Face Protection

Yes, Splash Goggles.

#### 8.2.4 Skin Protection

Not necessary.

#### 8.2.5 Hygiene Measures

Eating, drinking, smoking, taking snuff and storage of food in work areas and at outdoor workplaces is prohibited. Avoid contact with the skin, eyes and clothing. Rinse any clothing on which the substance has been spilled, and soak it in water. Wash hands thoroughly with soap and water when stopping work and before eating, and then apply protective skin cream.

## Section 9: Physical and Chemical Properties

### 9.1 Information on Basic Physical and Chemical Properties

#### 80 mL MV1

a) Appearance: liquid	Color: colorless	b) Odor: fusty, mouldy
c) Odor Threshold:	data not available	
d) pH:	5.5-6	
e) Melting Point:	data not available	
f) Boiling Point:	data not available	
g) Flash Point:	data not available	
h) Evaporation Rate <sub>(ether=1)</sub> :	data not available	
i) Flammability (solid, gas):	data not available	
j) Explosive Limits:	data not available	
k) Vapor Pressure (68°F):	data not available	
l) Vapor Density <sub>(air=1)</sub> :	data not available	
m) Specific Gravity:	1.15 g/cm <sup>3</sup>	
n) Soluble in Water:	data not available	
o) Partition Coefficient (o-w):	data not available	
p) Autoignition Temperature:	data not available	
q) Decomposition temperature:	data not available	
r) Viscosity:	data not available	
s) Explosive properties:	data not available	
t) Oxidizing properties:	---	

### 9.2 Other Information

Data for the other parameters of the mixtures are not available.

#### Relevant Properties of Substance Group

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## Section 10: Stability and Reactivity

### 10.1 Reactivity

No further data available.

### 10.2 Chemical Stability

No known instability.

### 10.3 Possibility of Hazardous Reactions

Can form very reactive substances with oxidizing agents. Possibility: Contact with acids liberates toxic gas. No further data available.

### 10.4 Conditions to avoid

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### 10.5 Incompatible Materials

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Not necessary. Avoid contact with strong acids or alkalines. ---

### 10.6 Hazardous Decomposition Products

In the original package all parts/all reagents are safety and separated stored. Decompositions are not observed during the expiration period under recommended conditions.

## Section 11: Toxicological Information

### 11.1 Information on Toxicological Effects

Following information is valid for pure chemicals. Quantitative data on the toxicity of this product are not available.

#### 80 mL MV1

Chemical:	<i>guanidinium thiocyanate</i>	CAS No.:	593-84-0
TSCA Inventory:	listed	California Prop. 65 List:	not listed
Canada CEPA 1999:	DSL yes		
LD50 <sub>orl rat</sub> :	593 mg/kg		
LC50 <sub>drum rbt</sub> :	>2000 mg/m <sup>3</sup>		
LC50 <sub>ihl rat</sub> :	[4h] 5.319 mg/L		
LD50 <sub>ipr mus</sub> :	300 mg/kg		

Acute Effects: Cause after oral intake, inhalation of vapors/dust, impairments of health when ingested in small quantities.

## Section 12: Ecological Information

### 12.1 Toxicity

Following information is valid for pure chemicals.

#### 80 mL MV1

Chemical:	<i>guanidinium thiocyanate</i>	CAS No.:	593-84-0
Harmful to aquatic life with long lasting effects. Avoid contact of chemical/mixture to environment.			
Environmental hazards must not be labelled with P phrases until 125 mL (EU-CLP 1272/2008 Annex I - 1.5.2).			
PNEC <sub>(fresh water)</sub> :	42.4 µg/L		
PNEC = Predicted No Effect Concentration			
LC50 <sub>fish/96h</sub> :	[4d] 89.1 mg/L		
EC50 <sub>daphnia/48h</sub> :	42.4 mg/L		
IC50 <sub>scenedesmus quadricauda/72h</sub> :	130 mg/L		
EC10 <sub>pseudomonas putita/16h</sub> :	[10d] 200 mg/L		
Partition Coefficient (o-w):	[pH 5.1] -1.11		

### 12.2 Persistence and Degradability

not necessary

### 12.3 Bioaccumulative Potential

not necessary

### 12.4 Mobility in Soil

not necessary

### 12.5 Results of PBT and vPvB Assessment

no data available

### 12.6 Other Adverse Effects

no additional data available

## Section 13: Disposal Considerations

Do not collect in acidic waste. May form toxic gases.

Please observe local regulations for collection and disposal of hazardous waste and contact waste disposal company, where you will obtain information on laboratory waste disposal (RCRA Code D002/D003, EU waste code number 16 05 06).

### 13.1 Waste Treatment Methods

Normally it is possible to empty small amounts (diluted!) into drains.

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### Section 14: Transport Information

14.1 - 14.4: No dangerous goods according the Transport regulations

#### 14.5 Environmental Hazards

none, contains only small quantities of hazardous substances, contains only small amounts of these substances

#### 14.6 Special Precautions for User

not necessary

#### 14.7 Transport in Bulk according to Annex II of MARPOL and the IBC Code

not applicable

### Section 15: Regulatory Information

#### 15.1 Safety, Health and Environmental Regulations/Legislation specific for the Substance or Mixture

##### U.S. Federal Regulations

OSHA "A Guide to The Globally Harmonized System of Classification and Labelling of Chemicals (GHS)"

<https://www.osha.gov/dsg/hazcom/ghs.html>

29 CFR 1910.1200 Hazard communication.

NIOSH Pocket Guide to Chemical Hazards

NIOSH Workplace Safety & Health Topics

TSCA Inventory

##### U.S. State Regulations

California Prop 65, Safe Drinking Water and Toxic Enforcement Act of 1986

##### Canada

Canada CEPA 1999 - Domestic Substances List (DSL), List of Toxic Substances (Schedule 1)

MN Leaflet/User manual, also see [www.mn-net.com](http://www.mn-net.com)

#### 15.2 Chemical Safety Assessment

not necessary for these small amounts ---

### Section 16: Other Information

#### 16.1 List of Hazard and Precaution Phrases

##### 16.1.1 List of relevant H Phrases

H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H412	Harmful to aquatic life with long lasting effects.

##### 16.1.2 List of relevant P Phrases

P264W	Wash with water thoroughly after handling.
P273	Avoid release to the environment.
P280sh	Wear protective gloves/eye protection.
P301+312	IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
P302+352	IF ON SKIN: Wash with plenty of water.
P330	Rinse mouth.

#### 16.2 Training Advice

Regular safety training.

#### 16.3 Recommended Restriction on Use

Only for Professional User.

An individual package of this product or test kit has a moderate hazardous potential.

#### 16.4 Further Information

MACHEREY-NAGEL GmbH & Co. KG provides the information contained herein in good faith being up-to-date of own realizations at revision time. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgement in determining its appropriateness for a particular purpose.

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### 16.5 Sources of Key Data

GHS: EU Regulation 1272/2008/EC on Classification, Labelling and Packaging of Substances and Mixtures, amending and repealing EU Directives 67/548/EEC and 1999/45/EC, and amending EU Regulation 1907/2006/EC  
SDS: EU Regulation 453/2010/EU REACH - Requirements for the Compilation of Safety Data Sheets  
KÜHN, BIRETT (German), Data Sheets of Hazardous Substances

#### Revisions/Updates

Reason for Revision: 2016-03 Adaptation of European Regulation 1221/2015/EU

You find our current Versions of SDS in Internet:

<http://www.mn-net.com/SDS> [U.S. English]