

Material Safety Data Sheet

according to Directive 1907/2006/EC (REACH) and 453/2010/EU

Printing date: 05.11.2015

Date of issue: 28.10.2015

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

1.1 Product identifier

REF 985091
 Product name NANOCOLOR Thiocyanate 50
 20 x 2 mL Thiocyanate 50 (tubes)
 1 x 5 mL solution "NULL" (=ZERO)

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

Relevant identified uses
 Product for analytical use.
 Exposure Scenario Classification according REACH, RIP 3.2 Codes: SU 0-2, PC 21, PROC 15, AC 0
 The exposure scenario is integrated into sections 1-16.
Uses advised against
 not described

1.3 Details of the supplier 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: msds@mn-net.com

1.4 Emergency telephone number

Outside Germany (DE): Call your regional Poisons Information Service or call local Life Saving Service.
 DE: Gemeinsames Giftinformationszentrum (GGIZ) 99089 Erfurt tel. +49 361 730 730

SECTION 2: Hazard identification

2.0 Classification of the complete product

Directive 1999/45/EC

Symbols -
 R -

CLP Directive 1272/2008/EC

GHS pictograms



GHS05 GHS07

Signal word WARNING

Hazard identification	Hazard classes/categories
H290	Metal Corrosion cat. 1
H315	Skin Irritation cat. 2
H319	Eye Irritation cat. 2
H335	STOT SE 3

2.1 Classification of the substance or mixture

2 mL Thiocyanate 50 (tubes)

Directive 1999/45/EC

Symbols - do not need labelling as hazardous

CLP Directive 1272/2008/EC

GHS pictograms



GHS05 GHS07

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Signal word	WARNING
Hazard identification	Hazard classes/categories
H290	Metal Corrosion cat. 1
H315	Skin Irritation cat. 2
H319	Eye Irritation cat. 2
H335	STOT SE 3

5 mL solution "NULL" (=ZERO)

Directive 1999/45/EC

Symbols do not need labelling as hazardous

CLP Directive 1272/2008/EC

GHS pictograms do not need labelling as hazardous
Signal word -

No hazard class

2.2 Label elements

According 1999/45/EC small amounts of harmful and highly flammable preparations/mixtures have partly/completely exemption from labelling (no symbols F, O, Xn, Xi, N and no R and S phrases are necessary) until **25-125 mL/g**.

According **CLP (GHS)** inner packages must be only labelled with symbol(s) and product identifier.
Harmful chemicals/mixtures with signal word: **WARNING** must not be labelled with H and P phrases until **125 mL** or **125 g** (EU 1272/2008 Annex I - 1.5.2).

2 mL Thiocyanate 50 (tubes)

Directive 1999/45/EC

Symbols:

-
-

S 26

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

CLP Directive 1272/2008/EC

GHS pictograms:



GHS05 GHS07

Signal word: WARNING

5 mL solution "NULL" (=ZERO)

Directive 1999/45/EC

Symbols:

-
-

CLP Directive 1272/2008/EC

GHS pictograms:

do not need labelling as hazardous

Signal word: -

2.3 Other hazards

Possible Hazards from physicochemical Properties

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Generally in the case of pH values are less than 2 or higher than 11.5 then it is corrosive. In the case of pH values are less than 5 or higher than 9 then it is irritant. According to our current status of knowledge and experience we state, that this product does not contain any substances, which - in accordance with EC regulations 1272/2008/EC, 1907/2006/EC, 1999/45/EC and German Regulations for Hazardous goods - have to be declared as dangerous goods, either because of their applied concentration or because of their total amount in anyone kit.

An individual package has considerably less hazardous potential.

Information pertaining to particular Risks to Human and possible Symptoms

--- Causes varying degrees of acid burns on the skin, to the eyes and to the mucous membranes and wounds which do not heal quickly depending on the concentration, temperature and the exposure time.

Information pertaining to particular Risks to the Environment

Other Hazards

--- Hazard H290 "May be corrosive to metals." has only relevance for longer transportation time of larger amounts. The labelling GHS05 would be creating an "OVERLABELLING" (see GHS Directive 1272/2008/EC Annex I, chapter 1.5.2.1.3.). Hazard H290 "May be corrosive to metals." has only relevance for longer transportation time of larger amounts. The labelling GHS05 would be creating an "OVERLABELLING".

SECTION 3: Composition/Information on Ingredients

3.1 Substances or 3.2 Mixtures

2 mL Thiocyanate 50 (tubes)

Chemical:	<i>hydrochloric acid</i>	CAS No.:	7647-01-0
Concentration:	10 - 25 %		
Formula:	HCl•H ₂ O		
Pseudonym:	aqueous hydrogen chloride		
REACH Reg. No.:	01-2119484862-27-xxxx		
EC No.:	231-595-7	Indice No.:	017-002-01-X
RTECS:	MW4025000		
TSCA Inventory:	listed		
KE No.:	KE-20189, >10% Toxic 97-1-203, Acc. Precaution Chem.		
acc. 1999/45/EC:	R 36/37/38	acc. CLP (GHS):	H290, H315, H319, H335

5 mL solution "NULL" (=ZERO)

Chemical:	<i>water</i>	CAS No.:	7732-18-5
Concentration:	90 - 100 %		
Formula:	H ₂ O		
REACH Reg. No.:	exempt, Annex IV		
EC No.:	231-791-2		
RTECS:	ZC0110000		
TSCA Inventory:	listed		
KE No.:	KE-35400		
acc. 1999/45/EC:	-	acc. CLP (GHS):	not necessary

3.3 Remarks

List of R and H phrases: see chapter 16

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 Vapours

After inhalation of foam or vapour 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

4.3 Indication of any immediate medical attention and special treatment needed

No additionally recommendations.

SECTION 5: Firefighting measures

5.1 Extinguishing 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 FOAM, WATER SPRAY, DRY POWDER, CARBON DIOXIDE can be used.

5.2 Special hazards arising from the substance or mixture

Formation of hazardous and caustic vapour-air mixtures possible.

5.3 Advice for firefighters

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

5.4 Additional Information

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Do not breathe vapours. Regular staff training is necessary.

6.2 Environmental precautions

not necessary

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 drains.

6.4 Reference to other sections

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Handling in accordance with the test instruction, that comes with the product. Use a safety bottle when shaking test tubes.

7.2 Conditions for safe storage, including any incompatibilities

The original product package of MACHEREY-NAGEL allows a safe storage.
Storage class (German chemical industry): see chapter 12.1

7.2.1 Requirements for Stock Rooms and Containers

Keep original product packages tightly closed during handling and storage.

7.3 Specific end use(s)

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

2 mL Thiocyanate 50 (tubes)

Chemical: *hydrochloric acid*

CAS No.: 7647-01-0

DNEL: 8_{inh} mg/m^3

DNEL = Derived No-Effect Level (for workers)

EU value: $5 \text{ ppm} / 8 \text{ mg/m}^3$

TRGS 900 (DE): $2 \text{ mg/m}^3 / 3 \text{ mg/m}^3$
E/e respirable

Short-term exposure factor: 2 (I), Y
skin resorptive (H), respiratory sensitizable (Sa), skin sensitizable (Sh), teratogenic (Z) not securely excluded / (Y) certainly excluded

SUVA(CH) MAK value: $2 \text{ ppm} / 3^* \text{ mg/m}^3$

NIOSH: C $5 \text{ ppm} / 7 \text{ mg/m}^3$

OSHA: List of highly hazardous chemicals, toxics and reactives Yes (TQ = 5000 lbs) n/a; TWA $5 \text{ ppm} / 7 \text{ mg/m}^3$

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5 mL solution "NULL" (=ZERO)
Chemical: *water*

CAS No.: 7732-18-5

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

Only if additional recommendations in test instruction or packing insert.

8.2.2 Hand Protection

Yes, gloves according EN 374 (permeation time >30 min - level 2), consist of PVC, natural latex, Neopren, or Nitril (f.ex. from Ansell or KCL). Use for short times chemical resistant latex gloves with code EN 374-3 level 1.

8.2.3 Eye Protection

Yes, safety glasses according EN 166 with integrated side shields or wrap-around protection.

8.2.4 Skin Protection

Not necessary.

8.2.5 Personal Hygiene

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

2 mL Thiocyanate 50 (tubes)

Appearance : liquid	Color : slightly yellow	Odor : penetrative
pH: 0		
Specific gravity: 1,05 g/cm ³		
Solubility in water: 0-100 %		

5 mL solution "NULL" (=ZERO)

Appearance : liquid	Color : colourless	Odor : odorless
pH: 6-8		
Specific gravity: 1,00 g/cm ³		

9.2 Other information

Relevant Properties of Substance Group

9.2.1

- Data for the other parameters of the mixtures are not available, because no registration and no chemical safety report is required.

SECTION 10: Stability and reactivity

10.1 Reactivity

No data available

10.2 Chemical stability

No known instability.

10.3 Possibility of hazardous reactions

No data available.

10.4 Conditions to avoid

Or when indicated in packing insert.

10.5 Incompatible materials

Not necessary.

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.

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SECTION 11: Toxicological information

11.1 Information on toxicological effects

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

2 mL Thiocyanate 50 (tubes)

Chemical: *hydrochloric acid* CAS No.: 7647-01-0
 TSCA Inventory: listed California Proposition 65 List: not listed
 Exposure Routes: inhalation, ingestion (solution), skin and/or eye contact
 Target Organs: Eyes, skin, respiratory system
 Symptoms: irritation nose, throat, larynx; cough, choking; dermatitis; solution: eye, skin burns; liquid: frostbite; in animals: laryngeal spasm; pulmonary edema
 Australia NICNAS: not listed Canada CEPA 1999: DSL Yes
 Japan CSCL/PRTR: not listed
 Japan PDSCL: Deleterious Substance Yes Japan ISHL: Article 57-2 (SDS required)
 South Korea TCCA: Accident Precaution Chemical Yes
 Korea Exist.Chem.Inventory: KE-20189, >10% Toxic 97-1-203, Acc. Precaution Chem.
 LD50_{orl rat}: 900 mg/kg
 LC50_{drm rbt}: >5010 mg/kg
 Acute Effects: Cause after inhalation of vapours/dust, impairments of health when ingested in small quantities.

5 mL solution "NULL" (=ZERO)

Chemical: *water* CAS No.: 7732-18-5
 TSCA Inventory: listed
 Korea Exist.Chem.Inventory: KE-35400

SECTION 12: Ecological information

12.1 Toxicity

Following information is valid for pure substances.

2 mL Thiocyanate 50 (tubes)

Chemical: *hydrochloric acid* CAS No.: 7647-01-0
 PNEC(sweet water): 36 µg/L
 PNEC = Predicted No Effect Concentration
 LC50_{fish/96h}: 24.6 mg/L
 EC50_{daphnia/48h}: 0.492 mg/L
 EC50_{pseudokirchneriella subcapitata/72h}: 0.78 mg/L
 WGK (DE): 1 WGK No.: 0238
 Storage class (VCI): 8 B

5 mL solution "NULL" (=ZERO)

Chemical: *water* CAS No.: 7732-18-5

12.2 Persistence and degradability

no data available

12.3 Bioaccumulative potential

no data available

12.4 Mobility in soil

no data available

12.5 Results of PBT and vPvB assessment

no data available

12.6 Other adverse effects

no data available

SECTION 13: Disposal considerations

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 (waste code number 16 05 06).

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13.1 Waste treatment methods

SECTION 14: Transport information

No dangerous goods according the transport regulations

14.5 Environmental hazards

not necessary, contains only small quantities of hazardous 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

German act governing protection from hazardous substances (Chemicals Act / Chemikaliengesetz- ChemG), revised on August 2013
 German order governing protection from hazardous substances (Ordinance on Hazardous Substances / Gefahrstoffverordnung - GefStoffV), revised on November 2010, according to Directive 98/24/EC
 TRGS 200, German engineering rules governing the classification and labelling of hazardous substances, preparations and products, updated October 2011

15.2 Chemical safety assessment

not necessary for these small amounts

SECTION 16: Other Information

16.1 List of R and H phrases

16.1.1 List of relevant R phrases

R36/37/38 Irritating to eyes, respiratory system and skin.

16.1.2 List of relevant H phrases

H290 May be corrosive to metals.
 H315 Causes skin irritation.
 H319 Causes serious eye irritation.
 H335 May cause respiratory irritation.

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

Regulation 453/2010/EU REACH - REQUIREMENTS FOR THE COMPILATION OF SAFETY DATA SHEETS

Regulation 487/2013/EU, 4th adaptation of CLP regulation to technical and scientific progress

TRGS 900, German engineering rules governing limits in air at work, updated February 2015

SUVA .CH, Limits in air at work 2009, revised on 01.2009

KÜHN, BIRETT Merkblätter Gefährliche Arbeitsstoffe (Data Sheets of Hazardous Substances)

Revisions/Updates

Reason for Revision: 2014-02 Corrected structure of sections acc. regulation 453/2010/EU, if necessary
 2014-04 Adaptation of regulation 487/2013/EU

You find our current versions of MSDS in Internet:

<http://www.mn-net.com/MSDS>