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

1.1 Product identifier

REF 931244
Product name VISOCOLOR ECO Nitrite, refill pack

REACH Registration number(s): see SECTION 3.1/3.2 or
A registration number for the substance(s) does not exist because the annual tonnage does not require registration or the substance or its use is excluded from registration.

1 x 30 mL NO_2 -1
1 x 5 g NO_2 -2

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
Valencienner Str. 11, 52355 Düren, GERMANY
Tel.: +49 2421 969 0 E-mail: sds@mn-net.com (msds@mn-net.com)

1.4 Emergency telephone number

Information not necessary.

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

SECTION 2: Hazard identification

2.0 Classification of the complete product

-

Hazard identification	Hazard classes/categories
H290	Met. Corr. 1

2.1 Classification of the substance or mixture

30 mL NO_2 -1

Do not need labelling as hazardous
Signal word -

Hazard identification	Hazard classes/categories
H290	Met. Corr. 1

5 g NO_2 -2

Do not need labelling as hazardous
Signal word -

No hazard class

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MACHEREY-NAGEL ISO 9001 CERTIFIED
Version: M V 4.12.0

2.2 Label elements

Metal corrosive solutions**do not have to** be labelled with GHS symbol, signal word, H and P phrases **until 125 mL** (EU 1272/2008 Annex I - 1.5.2.1.3).

30 mL NO_2 -1

Do not need labelling as hazardous
Signal word: -

5 g NO_2 -2

Do not need labelling as hazardous
Signal word: -

2.3 Other hazards

Possible hazards from physicochemical properties
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 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. The sentence 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.). ---

Information pertaining to particular risks to human and possible symptoms
---

Information pertaining to particular risks to the environment
---

Other hazards

SECTION 3: Composition/information on ingredients

3.1 Substances or 3.2 Mixtures

30 mL NO_2 -1

Chemical:	*sulfanilamide*		CAS No.: 63-74-1
Classification:	H303, Acute Tox. 5 oral		
Formula:	$C_6 H_8 N_2 O_2 S$		
Pseudonym:	4-aminobenzene sulfonamide		
TSCA Inventory:	listed		
EC No.:	200-563-4		
RTECS:	WO8400000	MFCD:	00007939
KE No.:	KE-01188		
Concentration:	1 - <10 %		
acc. CLP (GHS):	The criteria for classification are not fulfilled.		

Chemical:	*o-phosphoric acid*		CAS No.: 7664-38-2
Classification:	H290, Met. Corr. 1, H302, Acute Tox. 4 oral, H314, Skin Corr. 1B		
Formula:	$H_3 PO_4 \cdot H_2 O$		
Pseudonym:	orthophosphoric acid		
TSCA Inventory:	listed		
REACH Reg. No.:	01-2119485924-24-xxxx		
EC No.:	231-633-2	Indice No.:	015-011-00-6
RTECS:	TB6300000		
KE No.:	KE-27427		
Concentration:	1 - <10 %		
acc. CLP (GHS):	H290, Met. Corr. 1		

5 g NO_2 -2

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Chemical: *N-(1-naphthyl)-ethylendiamine dihydrochloride* CAS No.: 1465-25-4
Classification: H315, Skin Irrit. 2, H319, Eye Irrit. 2
Formula: $C_{12}H_{16}Cl_2N_2$
Pseudonym: N1-1-naphthalenyl-1,2-ethanediamine, dihydrochloride
TSCA Inventory: listed
EC No.: 215-981-2
RTECS: KV5330000 MFCD: 00012556
KE No.: not listed
Concentration: 1 - <10 %
acc. CLP (GHS): The criteria for classification are not fulfilled.

Chemical: *citric acid* CAS No.: 77-92-9
Classification: H303, Acute Tox. 5 oral, H316, Skin Irrit. 3, H319, Eye Irrit. 2, H335, STOT SE 3
Formula: $C_6H_8O_7$
Pseudonym: 2-hydroxy-1,2,3-propanetricarboxylic acid
TSCA Inventory: listed
REACH Reg. No.: 01-2119457026-42-xxxx
EC No.: 201-069-1
RTECS: GE7350000/GE7810000
KE No.: KE-20831
Concentration: 1 - <10 %
acc. CLP (GHS): The criteria for classification are not fulfilled.

3.3 Remarks

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

- - -

SECTION 4: First aid measures

4.1 Description of first aid measures

Place insured person out of danger zone to fresh air immediately.

4.1.1 After SKIN Contact
Not necessary.

4.1.2 After EYE Contact
Not necessary.

4.1.3 After INHALATION of vapours
Not necessary. ---

4.1.4 After ORAL Intake
Not necessary. ---

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

None.

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 procedures

Do not breathe vapours. Not necessary.

6.2 Environmental precautions

not necessary

6.3 Methods and material for containment and cleaning up

Clean working area with water. Flush used 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.

7.2 Conditions for safe storage, including any incompatibilities

The original product package of MACHEREY-NAGEL allows a safe storage.
Storage class (VCI): 8B
Water hazard class (DE): 3

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)

Product for analytical use.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

30 mL NO_2 -1

Chemical: *sulfanilamide* CAS No.: 63-74-1

Chemical: *o-phosphoric acid* CAS No.: 7664-38-2
DNEL: 2.92 mg/m³
DNEL = Derived No-Effect Level (for workers)
EU value: [TWA] 1 /[STEL] 2 mg/m³
TRGS 900 (DE): [8h] 1 / [15min] 2 mg/m³
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: 1 mg/m³
NIOSH: TWA 1 / ST 3 mg/m³
NIOSH STEL: 3 mg/m³
[TWA] Time-weighted average to a reference period of 8 hours, [STEL] Short-term exposure limit related to a 15-minute period
OSHA: TWA 1 mg/m³

5 g NO_2 -2

Chemical: *N-(1-naphthyl)-ethylendiamine dihydrochloride* CAS No.: 1465-25-4

Chemical: *citric acid* CAS No.: 77-92-9
$PNEC_{(fresh\ water)}$: 440 mg/L
PNEC = Predicted No Effected Concentration
TRGS 900 (DE): 2 E mg/m³
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

8.2 Exposure controls

Not necessary.Good ventilation and extraction system in the room, floor resistant to chemicals with floor drainage and washing facilities.

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8.2.1 **Respiratory protection**
Not necessary.

8.2.2 **Hand protection**
Not necessary.

8.2.3 **Eye protection**
Not necessary.

8.2.4 **Skin protection**
Not necessary.

8.2.5 **Personal hygiene**
Information not necessary.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

30 mL NO_2 -1

Appearance: liquid	Colour: colourless	Odor: odorless
pH:	2-3	
Specific gravity:	1,04 g/cm³	

5 g NO_2 -2

Appearance: powder (solid)	Colour: colourless	Odor: odorless
pH:	2-3	

9.2 Other information

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

SECTION 10: Stability and reactivity

10.1 Reactivity
None

10.2 Chemical stability
No known instability.

10.3 Possibility of hazardous reactions
None.

10.4 Conditions to avoid
Not known. ---

10.5 Incompatible materials
Not known.

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 substances. Quantitative data on the toxicity of this product are not available.

30 mL NO_2 -1

Chemical: *sulfanilamide* CAS No.: 63-74-1
TSCA Inventory: listed
Korea Exist.Chem.Inventory: KE-01188
$LD50_{orl\ rat}$: 3900 mg/kg

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Chemical: *o-phosphoric acid* CAS No.: 7664-38-2
TSCA Inventory: listed California Proposition 65 List: not listed
ACGIH: 1 ppm
Exposure Routes: inhalation, ingestion, skin and/or eye contact
Target Organs: Eyes, skin, respiratory system
Symptoms: irritation eyes, skin, upper respiratory system; eye, skin, burns; dermatitis
Australia NICNAS: not listed Canada CEPA 1999: DSL Yes
Japan CSCL/PRTR: not listed, Japan PDSCL: not listed
Japan ISHL: listed ≥1,0%/≥1,0%, Article 57-2 (SDS required)
South Korea TCCA: not listed
Korea Exist.Chem.Inventory: KE-27427
$LD50_{orl\ rat}$: 1530 mg/kg
$LC50_{ihl\ rbt}$: 1.689 mg/L
$LD50_{drm\ rbt}$: 2750 mg/kg

TRGS 905 (DE): R_F C

5 g NO_2 -2

Chemical: *N-(1-naphthyl)-ethylendiamine dihydrochloride* CAS No.: 1465-25-4
TSCA Inventory: listed
Korea Exist.Chem.Inventory: not listed

Chemical: *citric acid* CAS No.: 77-92-9
TSCA Inventory: listed
Korea Exist.Chem.Inventory: KE-20831
$LD50_{orl\ rat}$: >3000 mg/kg
$LC50_{ihl\ rat}$: 5800 mg/m³
$LD50_{drm\ rat}$: >2000 mg/kg
$LD50_{orl\ mus}$: 5400 mg/kg
$LD50_{scu\ rat}$: 5500 mg/kg

SECTION 12: Ecological information

12.1 Toxicity

Following information is valid for pure substances.

30 mL NO_2 -1

Chemical: *sulfanilamide* CAS No.: 63-74-1
Water hazard class (DE): 1 WGK No.: n.n.
Storage class (VCI): 12-13

Chemical: *o-phosphoric acid* CAS No.: 7664-38-2
$LC50_{fish/96h}$: 3-3.5 mg/L
Water hazard class (DE): 1 WGK No.: 0392
Storage class (VCI): 8 B

5 g NO_2 -2

Chemical: *N-(1-naphthyl)-ethylendiamine dihydrochloride* CAS No.: 1465-25-4
Water hazard class (DE): 3
Storage class (VCI): 13

Chemical: *citric acid* CAS No.: 77-92-9
$PNEC_{(fresh\ water)}$: 440 mg/L
PNEC = Predicted No Effected Concentration
$LC50_{leuciscus\ idus/96h}$: 440-760 mg/L
$EC50_{daphnia/48h}$: 1535_{24h} mg/L
$IC50_{scenedesmus\ quadricauda/72h}$: 7d: 425-640 mg/L
$EC10_{pseudomonas\ putita/16h}$: EC0: >10 g/L
Water hazard class (DE): 1 WGK No.: 0057
Dispersion coefficient$_{(octanol-water)}$: -1.72
Storage class (VCI): 12-13

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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
Not necessary.

13.1 Waste treatment methods
GENERAL: Empty solids into municipal waste, empty liquids diluted into drains. Normally it is possible to empty small amounts (diluted!) into drains.

SECTION 14: Transport information
14.1 - 14.4: No dangerous goods according the transport regulations

14.5 Environmental hazards
none

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
MN Leaflet/User manual, also see www.mn-net.com
Look for your country-specific regulations.

15.2 Chemical safety assessment

SECTION 16: Other information

16.1 List of H and P phrases

16.1.1 List of relevant H phrases

H290	May be corrosive to metals.

16.1.2 List of relevant P phrases

P390	Absorb spillage to prevent material damage.

16.2 Training advice
Regular safety training.

16.3 Recommended restriction on use
None

16.4 Further information
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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
Regulation 669/2018/EU, 4th adaptation of CLP regulation to technical and scientific progress
Regulation 1480/2018/EU, 4th adaptation of CLP regulation to technical and scientific progress
Regulation 849/2021/EU, 4th adaptation of CLP regulation to technical and scientific progress
TRGS 900, German engineering rules governing limits in air at work, updated 03/2019
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: 2016-03 Adaptation of regulation 1221/2015/EU

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