

# Safety Data Sheet

according to Regulations 1907/2006/EC (REACH) and 2015/830/EU

REF: 814402	Spray reagent a.Dragendorff-Munier,100mL	Page: 1/7
Printing date: 02.06.2020	Date of issue: 08.02.2018	

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

### 1.1 Product identifier

REF 814402  
 Product name Spray reagent a.Dragendorff-Munier,100mL  
 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 100 mL Spray reagent acc. to Dragendorff-Munier

### 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: sds@mn-net.com (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

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

## SECTION 2: Hazard identification

### 2.1 Classification of the substance or mixture

100 mL Spray reagent acc. to Dragendorff-Munier



GHS07

Signal word WARNING

Hazard identification	Hazard classes/categories
H319	Eye Irrit. 2

### 2.2 Label elements

According **CLP directive** inner packages must be only labelled with GHS symbol(s) and product identifier(s) (EU 1272/2008 Annex I - 1.5.1.2).

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).

**100 mL Spray reagent acc. to Dragendorff-Munier**



GHS07

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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. ---

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

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### 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

#### 100 mL Spray reagent acc. to Dragendorff-Munier

Chemical:	<i>bismuth(III) nitrate, basic</i>	CAS No.:	10361-46-3
Classification:	H315, Skin Irrit. 2, H319, Eye Irrit. 2, H335, STOT SE 3		
Formula:	Bi <sub>5</sub> H <sub>9</sub> N <sub>4</sub> O <sub>22</sub>		
Pseudonym:	(nitroxy)oxobismuthine, bismuth hydroxide nitrate oxide		
TSCA Inventory:	listed (CAS 1304-85-4)		
REACH Reg. No.:	None 2017		
EC No.:	215-136-8		
RTECS:	EB2984460		
Concentration:	1 - <3 %		
acc. CLP (GHS):	The criteria for classification are not fulfilled.		

Chemical:	<i>potassium iodide</i>	CAS No.:	7681-11-0
Classification:	H319, Eye Irrit. 2		
Formula:	KI		
TSCA Inventory:	listed		
REACH Reg. No.:	YES, confidential		
EC No.:	231-659-4		
RTECS:	TT29750000	MFCD:	00011405
KE No.:	not listed		
Concentration:	10 - <20 %		
acc. CLP (GHS):	H319, Eye Irrit. 2		

Chemical:	<i>L(+)-tartaric acid</i>	CAS No.:	87-69-4
Classification:	H319, Eye Irrit. 2		
Formula:	C <sub>4</sub> H <sub>6</sub> O <sub>6</sub>		
Pseudonym:	2,3-dihydroxy- (2R,3R)-butanedioic acid		
TSCA Inventory:	listed		
REACH Reg. No.:	01- 2119537204-47-xxxx		
EC No.:	201-766-0		
RTECS:	WW7875000	MFCD:	00064207
KE No.:	KE-10801		
Concentration:	10 - <20 %		
acc. CLP (GHS):	H319, Eye Irrit. 2		

### 3.3 Remarks

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

List of H and P 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.

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- 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. ---
- 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: 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**  
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## 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**  
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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): 2
- 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.

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## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

**100 mL Spray reagent acc. to Dragendorff-Munier**

Chemical: *bismuth(III) nitrate, basic*

CAS No.: 10361-46-3

Chemical: *potassium iodide*

CAS No.: 7681-11-0

Chemical: *L(+)-tartaric acid*

CAS No.: 87-69-4

SUVA(CH) MAK value: [MAK] 2 e/[STEL] 4 e mg/m<sup>3</sup>

### 8.2 Exposure controls

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 according EN 374 (permeation time >30 min - level 2), consist of PVC (f.ex. from Ansell or KCL). Use for short times chemical resistant latex or nitril 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

**100 mL Spray reagent acc. to Dragendorff-Munier**

Appearance: liquid

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**

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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

No further data available.

### 10.4 Conditions to avoid

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### 10.5 Incompatible materials

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.

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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.

#### 100 mL Spray reagent acc. to Dragendorff-Munier

Chemical:	<i>bismuth(III) nitrate, basic</i>	CAS No.: 10361-46-3
TSCA Inventory:	listed (CAS 1304-85-4)	
LC50 <sub>fish</sub> :	>500 mg/L	

Chemical:	<i>potassium iodide</i>	CAS No.: 7681-11-0
TSCA Inventory:	listed	
Korea Exist.Chem.Inventory:	not listed	
LD50 <sub>orl rat</sub> :	2779 mg/kg	

Chemical:	<i>L(+)-tartaric acid</i>	CAS No.: 87-69-4
TSCA Inventory:	listed	
Korea Exist.Chem.Inventory:	KE-10801	
LC <sub>LoWorl rat</sub> :	7500 mg/kg	
LD50 <sub>orl mus</sub> :	4360 mg/kg	

## SECTION 12: Ecological information

### 12.1 Toxicity

Following information is valid for pure substances.

#### 100 mL Spray reagent acc. to Dragendorff-Munier

Chemical:	<i>bismuth(III) nitrate, basic</i>	CAS No.: 10361-46-3
Water hazard class (DE):	2	
Storage class (VCI):	12-13	

Chemical:	<i>potassium iodide</i>	CAS No.: 7681-11-0
LC50 <sub>fish/96h</sub> :	2190 mg/L	
Water hazard class (DE):	1	
Dispersion coefficient <sub>(octanol-water)</sub> :	0.04	
Storage class (VCI):	12-13	

Chemical:	<i>L(+)-tartaric acid</i>	CAS No.: 87-69-4
Water hazard class (DE):	-	WGK No.: (5094)
Dispersion coefficient <sub>(octanol-water)</sub> :	-0.76	
Storage class (VCI):	12-13	

### 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

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## 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).

### 13.1 Waste treatment methods

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

## SECTION 14: Transport information

14.1 - 14.4: No dangerous goods according to the transport regulations

### 14.5 Environmental hazards

none, 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  
 MN Leaflet/User manual, also see [www.mn-net.com](http://www.mn-net.com)  
 Look for your country-specific regulations.

### 15.2 Chemical safety assessment

not necessary for these small amounts ---

## SECTION 16: Other information

### 16.1 List of H and P phrases

#### 16.1.1 List of relevant H phrases

H319 Causes serious eye irritation.

#### 16.1.2 List of relevant P phrases

P280sh Wear protective gloves/eye protection.

### 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, 4<sup>th</sup> adaptation of CLP regulation to technical and scientific progress  
 Regulation 669/2018/EU, 4<sup>th</sup> adaptation of CLP regulation to technical and scientific progress  
 Regulation 1480/2018/EU, 4<sup>th</sup> 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)

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## Revisions/Updates

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