in accordance with HSNO

Printing date 31.03.2022

Endress+Hauser

People for Process Automation Version 3 (replaces version 2)

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SECTION 1: Identification of the substance or mixture and of the supplier

1.1 Product identifier

Trade name: <u>Standard solution N2H4</u> Synonym: *400 µg/l*

Article number: CAY542V10C40AAE

1.2 Relevant identified uses of the substance or mixture and uses advised against *No further relevant information available.*

Application of the substance / the mixture Laboratory chemicals

1.3 Details of the supplier of the safety data sheet Manufacturer/Supplier: *Endress+Hauser Conducta GmbH+Co. KG Dieselstraße 24 D-70839 Gerlingen*

Further information obtainable from:

Phone: +49 (0)7156 209-10117 E-Mail: MSDS.PCC@endress.com

1.4 Emergency telephone number: 0064 800 764 766

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

The product is not classified, according to the CLP regulation.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC Not applicable.

Information concerning particular hazards for human and environment:

The product does not have to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

Classification system:

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

2.2 Label elements

Labelling according to EU guidelines:

Observe the general safety regulations when handling chemicals. The product is not subject to identification regulations under EU Directives and the Ordinance on Hazardous Materials (German GefStoffV).

Safety phrases:

29 Do not empty into drains. **2.3 Other hazards** The product does not contain any organic halogen compounds (AOX), nitrates, heavy metal compounds or formaldehydes. **Results of PBT and vPvB assessment PBT:** Not applicable. **vPvB:** Not applicable.

SECTION 3: Composition/Information on ingredients

3.2 Mixtures

Description: aqueous solution

Dangerous components: Void

Additional information: For the wording of the listed hazard phrases refer to section 16.

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4.1 Description of first aid measures

General information: No special measures required.

After inhalation: Supply fresh air; consult doctor in case of complaints.

After skin contact: Generally the product does not irritate the skin.

After eye contact: Rinse opened eye for several minutes under running water.

After swallowing: If symptoms persist consult doctor. 4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed *No further relevant information available.*

SECTION 5: Fire fighting measures

5.1 Extinguishing media

Suitable extinguishing agents:

CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

For safety reasons unsuitable extinguishing agents: no further information

5.2 Special hazards arising from the substance or mixture No further relevant information available.

5.3 Advice for firefighters *No further relevant information available.*

Protective equipment: No special measures required.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures *Wear protective clothing.* **6.2 Environmental precautions:** *Dilute with plenty of water.*

6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

6.4 Reference to other sections

No dangerous substances are released. See Section 7 for information on safe handling. See Section 8 for information on personal protection equipment. See Section 13 for disposal information.

SECTION 7: Handling and storage

7.1 Precautions for safe handling *No special measures required.* **Information about fire - and explosion protection:** *No special measures required.*

7.2 Conditions for safe storage, including any incompatibilities

Storage:

Requirements to be met by storerooms and receptacles: *No special requirements.* Information about storage in one common storage facility: *Not required.* Further information about storage conditions: *None.* Storage class: *12* 7.3 Specific end use(s) *No further relevant information available.*

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

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8.2 Exposure controls

Appropriate engineering controls *No further data; see item 7.* Individual protection measures, such as personal protective equipment

General protective and hygienic measures:

The usual precautionary measures are to be adhered to when handling chemicals.

Respiratory protection: Not required.

Hand protection No chemical-protective gloves required.

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material

The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye/face protection Not required.

Body protection: Protective work clothing

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties General Information		
Physical state	Fluid	
Colour:	Colourless	
Odour:	Odourless	
Odour threshold:	Not determined.	
Melting point/freezing point:	0 °C	
Boiling point or initial boiling point and boiling		
range	100 °C	
Flammability	Not applicable.	
Lower and upper explosion limit		
Lower:	Not determined.	
Upper:	Not determined.	
Flash point:	Not applicable.	
Decomposition temperature:	Not determined.	
рН	Neutral	
Viscosity:		
Kinematic viscosity	Not determined.	
Dynamic at 20 °C:	1 mPas	
Solubility		
water:	Fully miscible.	
Partition coefficient n-octanol/water (log value)	Not determined.	
Vapour pressure at 20 °C:	23 hPa	
Density and/or relative density	4 - 1 2	
Density at 20 °C:	1 g/cm ³	
Relative density	Not determined.	
Vapour density	Not determined.	
9.2 Other information		
Appearance:		
Form:	Fluid	

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Important information on protection of health	
and environment, and on safety.	
Auto-ignition temperature:	Product is not selfigniting.
Explosive properties:	Product does not present an explosion hazard.
	Not determined.
Solvent content:	
Organic solvents:	<0.0 %
Water:	>99.0 %
Solids content:	0.0 %
Change in condition	
Evaporation rate	Not determined.
Information with regard to physical hazard	
classes	
Explosives	Void
Flammable gases	Void
Aerosols	Void
Oxidising gases	Void
Gases under pressure	Void
Flammable liquids	Void
Flammable solids	Void
Self-reactive substances and mixtures	Void
Pyrophoric liquids	Void
Pyrophoric solids	Void
Self-heating substances and mixtures	Void
Substances and mixtures, which emit flammabl	e
gases in contact with water	Void
Oxidising liquids	Void
Oxidising solids	Void
Organic peroxides	Void
Corrosive to metals	Void
Desensitised explosives	Void

SECTION 10: Stability and reactivity

10.1 Reactivity No further relevant information available.

10.2 Chemical stability

Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

10.3 Possibility of hazardous reactions No dangerous reactions known.

10.4 Conditions to avoid No further relevant information available.

10.5 Incompatible materials: *No further relevant information available.*

10.6 Hazardous decomposition products: No dangerous decomposition products known.

SECTION 11: Toxicological information

11.2 Information on other hazards

Endocrine disrupting properties

None of the ingredients is listed.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity: No further relevant information available.

12.2 Persistence and degradability No further relevant information available.

12.3 Bioaccumulative potential No further relevant information available.

12.4 Mobility in soil No further relevant information available.

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12.5 Results of PBT and vPvB assessment
PBT: Not applicable.
vPvB: Not applicable.
12.6 Endocrine disrupting properties
The product does not contain substances with endocrine disrupting properties.
12.7 Other adverse effects
Additional ecological information:
General notes: Not hazardous for water.

SECTION 13: Disposal considerations

13.1 Waste treatment methods Recommendation *Smaller quantities can be disposed of with household waste.*

Uncleaned packaging: Recommendation: Disposal must be made according to official regulations. Recommended cleansing agents: Water, if necessary together with cleansing agents.

SECTION 14: Transport information

14.1 UN number or ID number ADN, IMDG, IATA 14.2 UN proper shipping name ADR, ADN, IMDG, IATA 14.3 Transport hazard class(es)	Void Void
ADR, ADN, IMDG, IATA Class 14.4 Packing group ADR, IMDG, IATA 14.5 Environmental hazards: Marine pollutant:	Void Void No
14.6 Special precautions for user	Not applicable.
14.7 Maritime transport in bulk according to IMC	D
instruments	Not applicable.
Transport/Additional information:	Not dangerous according to the above specifications.
UN "Model Regulation":	Void

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

New Zealand Inventory of Chemicals

All ingredients are listed.

Directive 2012/18/EU

Named dangerous substances - ANNEX I None of the ingredients is listed. 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

16.3 Recommended restriction of use

Department issuing SDS: PCC-TWR

Contact: MSDS.pcc@endress.com

Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

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IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA) ICAO: International Civil Aviation Organisation ICAO-TI: Technical Instructions by the "International Civil Aviation Organisation" (ICAO) ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road) IMDG: International Maritime Code for Dangerous Goods IATA: International Maritime Code for Dangerous Goods IATA: International Air Transport Association GHS: Globally Harmonised System of Classification and Labelling of Chemicals EINECS: European Inventory of Existing Commercial Chemical Substances ELINCS: European List of Notified Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society) PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative * Data compared to the previous version altered.