

SECTION 1: Identification

Other means of identification

Trade name: Stock solution 100 000 mg/L

Synonym: *for TOC*

Article number: CAY451V10C10AAE

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*

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*

*Regional representation:
Endress+Hauser Australia Pty. Ltd.
50 Broughton Road
Artarmon NSW 2064
Australia*

Phone: 1300 363 707

Phone: +61 2 8877 7000

Emergency telephone number: *Poison Hotline: 13 11 26*

* SECTION 2: Hazard(s) Identification

Classification of the substance or mixture



GHS05 corrosion

Skin corrosion/irritation – Category 1A

H314 Causes severe skin burns and eye damage.

Eye damage/irritation – Category 1

H318 Causes serious eye damage.



GHS07

*Specific target organ toxicity (single exposure) –
Category 3*

H335 May cause respiratory irritation.

Label elements

GHS label elements

The product is classified and labelled according to the Globally Harmonised System (GHS).

Hazard pictograms



GHS05



GHS07

Signal word *Danger*

(Contd. on page 2)

AUS

Trade name: Stock solution 100 000 mg/L

(Contd. of page 1)

Hazard-determining components of labelling:

nitric acid (5-10 %)

citric acid (15-25 %)

Hazard statements

Causes severe skin burns and eye damage.

May cause respiratory irritation.

Precautionary statements

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Immediately call a POISON CENTER/doctor.

Specific treatment (see on this label).

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

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 and Information on Ingredients****Mixtures****Description:** Mixture of substances listed below with nonhazardous additions.

Dangerous components:		
CAS: 77-92-9 EINECS: 201-069-1	citric acid ⚠ Skin corrosion/irritation – Category 2, H315; Eye damage/irritation – Category 2A, H319; Specific target organ toxicity (single exposure) – Category 3, H335	15-25%
CAS: 7697-37-2 EINECS: 231-714-2	nitric acid ⚠ Oxidising liquids - Category 3, H272; ⚠ Acute toxicity - inhalation – Category 3, H331; ⚠ Skin corrosion/irritation – Category 1A, H314	5-10%

Additional information: For the wording of the listed hazard phrases refer to section 16.**SECTION 4: First Aid Measures****Description of first aid measures****General information:** Immediately remove any clothing soiled by the product.**After inhalation:** In case of unconsciousness place patient stably in side position for transportation.**After skin contact:**

Immediately wash with water and soap and rinse thoroughly.

Immediately rinse with water.

After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.**After swallowing:** Drink plenty of water and provide fresh air. Call for a doctor immediately.**Most important symptoms and effects, both acute and delayed**

No further relevant information available.

Indication of any immediate medical attention and special treatment needed

No further relevant information available.

(Contd. on page 3)

Trade name: Stock solution 100 000 mg/L

(Contd. of page 2)

SECTION 5: Fire Fighting Measures

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***Special hazards arising from the substance or mixture***During heating or in case of fire poisonous gases are produced.***Advice for firefighters** *No further relevant information available.***Protective equipment:** *Mount respiratory protective device.*

SECTION 6: Accidental Release Measures

Personal precautions, protective equipment and emergency procedures*Mount respiratory protective device.**Wear protective equipment. Keep unprotected persons away.**Wear protective clothing.***Environmental precautions:***Dilute with plenty of water.**Do not allow to enter sewers/ surface or ground water.***Methods and material for containment and cleaning up:***Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).**Use neutralising agent.**Dispose contaminated material as waste according to section 13.**Ensure adequate ventilation.***Reference to other sections***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

Precautions for safe handling*Ensure good ventilation/exhaustion at the workplace.**Prevent formation of aerosols.**Do not dry clean dust covered objects and floors. Wash thoroughly with plenty of water.***Information about fire - and explosion protection:** *Keep respiratory protective device available.***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:** *Keep container tightly sealed.***Storage class:** *8 B***Specific end use(s)** *No further relevant information available.*

* SECTION 8: Exposure controls and personal protection

Control parameters**Ingredients with limit values that require monitoring at the workplace:****CAS: 7697-37-2 nitric acid***WES (Australia) Short-term value: 10 mg/m³, 4 ppm**Long-term value: 5.2 mg/m³, 2 ppm***Additional information:** *The lists valid during the making were used as basis.***Exposure controls****Appropriate engineering controls** *No further data; see section 7.*

(Contd. on page 4)

Trade name: Stock solution 100 000 mg/L

(Contd. of page 3)

Individual protection measures, such as personal protective equipment**General protective and hygienic measures:***Keep away from foodstuffs, beverages and feed.**Immediately remove all soiled and contaminated clothing**Wash hands before breaks and at the end of work.**Avoid contact with the eyes.**Avoid contact with the eyes and skin.***Respiratory protection:***In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.***Hand protection***Protective gloves**To avoid skin problems reduce the wearing of gloves to the required minimum.**Only use chemical-protective gloves with CE-labelling of category III.**The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.***Material of gloves***Nitrile rubber, NBR**Chloroprene rubber, CR**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 through time has to be found out by the manufacturer of the protective gloves and has to be observed.***Eyeface protection***Tightly sealed goggles***Body protection:** *Protective work clothing***SECTION 9: Physical and Chemical Properties****Information on basic physical and chemical properties****General Information****Physical state***Liquid***Colour:***Colourless***Odour:***Odourless***Odour threshold:***Not determined.***Melting point/freezing point:***Undetermined.***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.***pH at 20 °C***1*

(Contd. on page 5)

Safety Data Sheet

according to WHS Regulations

Page 5/9

Date of issue: 03.09.2025

Version 6 (replaces version 5)

Revision: 03.09.2025

Trade name: Stock solution 100 000 mg/L

(Contd. of page 4)

Viscosity:	
Kinematic viscosity	<i>Not determined.</i>
Dynamic:	<i>Not determined.</i>
Solubility	
water:	<i>Fully miscible.</i>
Partition coefficient n-octanol/water (log value)	<i>Not determined.</i>
Vapour pressure at 20 °C:	<i>23 hPa</i>
Density and/or relative density	
Density at 20 °C:	<i>1.124 g/cm³</i>
Relative density	<i>Not determined.</i>
Vapour density	<i>Not determined.</i>
Particle characteristics	<i>Not applicable.</i>
Other information	
Appearance:	
Form:	<i>Fluid</i>
Important information on protection of health and environment, and on safety.	
Ignition temperature:	<i>Product is not selfigniting.</i>
Explosive properties:	<i>Product does not present an explosion hazard.</i> <i>Not determined.</i>
Solvent content:	
Water:	<i>>70.0 %</i>
Solids content:	<i>0.0 %</i>
Change in condition	
Evaporation rate	<i>Not determined.</i>
Information with regard to physical hazard classes	
Explosives	<i>Void</i>
Flammable gases	<i>Void</i>
Aerosols	<i>Void</i>
Oxidising gases	<i>Void</i>
Gases under pressure	<i>Void</i>
Flammable liquids	<i>Void</i>
Flammable solids	<i>Void</i>
Self-reactive substances and mixtures	<i>Void</i>
Pyrophoric liquids	<i>Void</i>
Pyrophoric solids	<i>Void</i>
Self-heating substances and mixtures	<i>Void</i>
Substances and mixtures, which emit flammable gases in contact with water	<i>Void</i>
Oxidising liquids	<i>Void</i>
Oxidising solids	<i>Void</i>
Organic peroxides	<i>Void</i>
Corrosive to metals	<i>Void</i>
Desensitised explosives	<i>Void</i>

SECTION 10: Stability and Reactivity

Reactivity *No further relevant information available.*

Chemical stability

Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

Possibility of hazardous reactions *No dangerous reactions known.*

Conditions to avoid *No further relevant information available.*

Incompatible materials: *No further relevant information available.*

(Contd. on page 6)

Trade name: Stock solution 100 000 mg/L

(Contd. of page 5)

Hazardous decomposition products: *No dangerous decomposition products known.**** SECTION 11: Toxicological Information****Information on hazard classes as defined in Regulation (EC) No 1272/2008****Acute toxicity** *Based on available data, the classification criteria are not met.***LD/LC50 values relevant for classification:****CAS: 77-92-9 citric acid**

Oral LD50 5,040 mg/kg (mouse)

CAS: 7697-37-2 nitric acid

Inhalative LC50/4 h 2.65 mg/l (ATE)

Primary irritant effect:**Skin corrosion/irritation** *Causes severe skin burns and eye damage.***Serious eye damage/irritation** *Causes serious eye damage.***STOT-single exposure** *May cause respiratory irritation.***Information on other hazards****Endocrine disrupting properties***None of the ingredients is listed.***SECTION 12: Ecological Information****Toxicity****Aquatic toxicity:** *No further relevant information available.***Persistence and degradability** *No further relevant information available.***Bioaccumulative potential** *No further relevant information available.***Mobility in soil** *No further relevant information available.***Results of PBT and vPvB assessment****PBT:** *Not applicable.***vPvB:** *Not applicable.***Endocrine disrupting properties***The product does not contain substances with endocrine disrupting properties.***Other adverse effects****Additional ecological information:****General notes:***Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water**Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.**Must not reach sewage water or drainage ditch undiluted or unneutralised.**Rinse off of bigger amounts into drains or the aquatic environment may lead to decreased pH-values. A low pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably increased, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.***SECTION 13: Disposal considerations****Waste treatment methods****Recommendation***Must not be disposed together with household garbage. Do not allow product to reach sewage system.***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****UN number or ID number****IMDG, IATA**

UN2031

(Contd. on page 7)

Safety Data Sheet

according to WHS Regulations

Page 7/9

Date of issue: 03.09.2025

Version 6 (replaces version 5)

Revision: 03.09.2025

Trade name: Stock solution 100 000 mg/L

(Contd. of page 6)

UN proper shipping name

ADG

UN2031 NITRIC ACID mixture

IMDG

NITRIC ACID mixture

IATA

Nitric acid mixture

Transport hazard class(es)

ADG



Class

8 (C1) Corrosive substances.

Label

8

IMDG, IATA



Class

8 Corrosive substances.

Label

8

Packing group

ADG, IMDG, IATA

II

Environmental hazards:

Not applicable.

Special precautions for user

Warning: Corrosive substances.

Hazard identification number (Kemler code): 80

EMS Number:

F-A, S-B

Segregation groups

(SGG1) Acids

Stowage Category

D

Segregation Code

SG6 Segregation as for class 5.1
SG16 Stow "separated from" class 4.1
SG17 Stow "separated from" class 5.1
SG19 Stow "separated from" class 7
SG36 Stow "separated from" SGG18-alkalis.
SG49 Stow "separated from" SGG6-cyanides

Maritime transport in bulk according to IMO instruments

Not applicable.

Transport/Additional information:

ADG

Limited quantities (LQ)

1L

Transport category

2

Tunnel restriction code

E

IMDG

Limited quantities (LQ)

1L

Excepted quantities (EQ)

Code: E2

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 500 ml

UN "Model Regulation":

UN 2031 NITRIC ACID MIXTURE, 8, II

* SECTION 15: Regulatory information

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

Australian Inventory of Industrial Chemicals

CAS: 7732-18-5 | water

CAS: 77-92-9 | citric acid

(Contd. on page 8)

AUS

Trade name: Stock solution 100 000 mg/L

(Contd. of page 7)

Standard for the Uniform Scheduling of Medicines and Poisons*None of the ingredients is listed.***Australia: Priority Existing Chemicals***None of the ingredients is listed.***GHS label elements***The product is classified and labelled according to the Globally Harmonised System (GHS).***Hazard pictograms**

GHS05 GHS07

Signal word *Danger***Hazard-determining components of labelling:***nitric acid (5-10 %)**citric acid (15-25 %)***Hazard statements***Causes severe skin burns and eye damage.**May cause respiratory irritation.***Precautionary statements***IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.**IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.**Immediately call a POISON CENTER/doctor.**Specific treatment (see on this label).**Store locked up.**Dispose of contents/container in accordance with local/regional/national/international regulations.***Directive 2012/18/EU****Named dangerous substances - ANNEX I** *None of the ingredients is listed.***National regulations:****Waterhazard class:** *Water hazard class 1 (Self-assessment): slightly hazardous for water.***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.***Department issuing SDS:** PCC-TWR**Contact:** MSDS.pcc@endress.com**Abbreviations and acronyms:***ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)**RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)**IMDG: International Maritime Code for Dangerous Goods**IATA: International Air Transport Association**ICAO: International Civil Aviation Organisation**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)**LC50: Lethal concentration, 50 percent**LD50: Lethal dose, 50 percent**PBT: Persistent, Bioaccumulative and Toxic**vPvB: very Persistent and very Bioaccumulative**Oxidising liquids - Category 3: Oxidizing liquids - Category 3**Acute toxicity - inhalation - Category 3: Acute toxicity - Category 3**Skin corrosion/irritation - Category 1A: Skin corrosion/irritation - Category 1A*

(Contd. on page 9)

Safety Data Sheet

according to WHS Regulations

Page 9/9

Date of issue: 03.09.2025

Version 6 (replaces version 5)

Revision: 03.09.2025

Trade name: Stock solution 100 000 mg/L

(Contd. of page 8)

Skin corrosion/irritation – Category 2: Skin corrosion/irritation – Category 2

Eye damage/irritation – Category 1: Serious eye damage/eye irritation – Category 1

Eye damage/irritation – Category 2A: Serious eye damage/eye irritation – Category 2A

Specific target organ toxicity (single exposure) – Category 3: Specific target organ toxicity (single exposure) – Category 3

*** Data compared to the previous version altered.**

AUS —