

19.09.2024

Kit Components

Product code	Description
CAY748-VxxAAH	CA71HA Reagent Set for hardness

Components:

51515586A	Reagent HA-A1 for hardness
51515587A	Reagent HA-A2, Component 1 for hardness
51515588A	Reagent HA-A2, Component 2 for hardness

SECTION 1: Identification of the substance or mixture and of the supplier**Product identifier****Trade name:** Reagent HA-A1**Synonym:** *for hardness***Article number:** 51515586A**Recommended use of the chemical and restrictions on use** *No further relevant information available.***Application of the substance / the mixture** *Laboratory chemicals***Supplier's details****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

Emergency phone number +27 (0)861 555 777**SECTION 2: Hazard identification****Classification of the substance or mixture***The product is not classified, according to the Globally Harmonised System (GHS).***GHS label elements****GHS label elements** *Void***Hazard pictograms** *Void***Signal word** *Void***Hazard statements** *Void***Additional information:***Safety data sheet available on request.***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 or information on ingredients****Mixtures****Description:** *Mixture of substances listed below with nonhazardous additions.***Dangerous components:**

CAS: 497-19-8	sodium carbonate	 Eye Irrit. 2, H319	1-2.5%
EINECS: 207-838-8			

Additional information: *For the wording of the listed hazard phrases refer to section 16.***SECTION 4: First-aid measures****Description of necessary first-aid measures****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.*

(Contd. on page 2)

— ZA —

Trade name: Reagent HA-A1

(Contd. of page 1)

Most important symptoms or effects, acute and delayed *No further relevant information available.***Indication of immediate medical attention and special treatment needed, if necessary***No further relevant information available.*

SECTION 5: Fire-fighting measures

Suitable 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***Specific hazards arising from the chemical** *No further relevant information available.***Special protective actions for fire fighters** *No further relevant information available.***Protective equipment:** *No special measures required.*

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures *Wear protective clothing.***Environmental precautions:** *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).***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

Precautions for safe handling *No special precautions are necessary if used correctly.***Information about fire - and explosion protection:** *No special measures required.***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***Specific end use(s)** *No further relevant information available.*

SECTION 8: Exposure controls or personal protection

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.***Additional information:** *The lists valid during the making were used as basis.***Exposure controls****Appropriate engineering controls** *No further data; see section 7.***Individual protection measures, such as personal protective equipment (PPE)****General protective and hygienic measures:** *Wash hands before breaks and at the end of work.***Respiratory protection:** *Not required.***Hand protection***To avoid skin problems reduce the wearing of gloves to the required minimum.**The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.**No chemical-protective gloves required.*

(Contd. on page 3)

Trade name: Reagent HA-A1

(Contd. of page 2)

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 through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye or face protection Goggles recommended during refilling

Body protection: Protective work clothing

SECTION 9: Physical and chemical properties**Information on basic physical and chemical properties****General Information****Physical state**

Fluid

Colour:

Yellow tint

Odour:

Characteristic

Odour threshold:

Not determined.

Melting point/freezing point:

0 °C

نقطة الغليان أو نقطة الغليان الأولية ونطاق الغليان

100 °C

Flammability

Not applicable.

Upper or lower flammability or explosive limits**Lower:**

Not determined.

Upper:

Not determined.

Flash point:

Not applicable.

Decomposition temperature:

Not determined.

pH at 20 °C

9-11

Viscosity:**Viscosity**

Not determined.

Dynamic:

Not determined.

Solubility**water:**

Not miscible or difficult to mix.

Partition coefficient: n-octanol or water

Not determined.

Vapour pressure at 20 °C:

23 hPa

Vapour density + Relative density**Density:**

Not determined.

Relative density

Not determined.

Vapour density

Not determined.

Other information**Appearance:****Form:**

Liquid

Important information on protection of health and environment, and on safety.**Ignition temperature:**

Product is not selfigniting.

Explosive properties:

Product does not present an explosion hazard.
Not determined.

Solvent content:**Water:**

95.8 %

Solids content:

0.0 %

Change in condition**Evaporation rate**

Not determined.

Information with regard to physical hazard classes**Explosives**

Void

(Contd. on page 4)

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Trade name: Reagent HA-A1

(Contd. of page 3)

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 flammable 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

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.**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: 497-19-8 sodium carbonate**

Oral LD50 4,090 mg/kg (rat)

Skin corrosion or irritation Based on available data, the classification criteria are not met.**Serious eye damage or irritation** Based on available data, the classification criteria are not met.**Respiratory and skin sensitization** Based on available data, the classification criteria are not met.**Germ cell mutagenicity** Based on available data, the classification criteria are not met.**Carcinogenicity** Based on available data, the classification criteria are not met.**Reproductive toxicity** Based on available data, the classification criteria are not met.**Specific target organ toxicity – single exposure**

Based on available data, the classification criteria are not met.

Specific target organ toxicity – repeated exposure

Based on available data, the classification criteria are not met.

Aspiration hazards Based on available data, the classification criteria are not met.**Information on other hazards****endocrine disrupting potential**

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.

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Trade name: Reagent HA-A1

(Contd. of page 4)

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.***SECTION 13: Disposal considerations****Waste treatment methods****Recommendation***Small amounts may be diluted with plenty of water and washed away. Dispose of bigger amounts in accordance with Local Authority requirements.**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.***SECTION 14: Transport information****UN number****ADN, IMDG, IATA***Void***UN proper shipping name****ADR, ADN, IMDG, IATA***Void***Transport hazard class(es)****ADR, ADN, IMDG, IATA****Class***Void***Packing group****ADR, IMDG, IATA***Void***Environmental hazards:***Not applicable.***Special precautions for user***Not applicable.***Transport in bulk according to Annex II of****MARPOL 73/78 and the IBC Code***Not applicable.***UN "Model Regulation":***Void***SECTION 15: Regulatory information****Safety, health and environmental regulations specific for the product in question****GHS label elements** *Void***Hazard pictograms** *Void***Signal word** *Void***Hazard statements** *Void***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.*

(Contd. on page 6)

Trade name: Reagent HA-A1

(Contd. of page 5)

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:

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

ICAO: International Civil Aviation Organisation

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 Air Transport Association

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

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

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

ZA

SECTION 1: Identification of the substance or mixture and of the supplier**Product identifier****Trade name:** Reagent HA-A2, Component 1**Synonym:** *for hardness***Article number:** 51515587A**Recommended use of the chemical and restrictions on use** *No further relevant information available.***Application of the substance / the mixture** *Laboratory chemicals***Supplier's details****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

Emergency phone number +27 (0)861 555 777**SECTION 2: Hazard identification****Classification of the substance or mixture***flame**Flam. Liq. 2 H225 Highly flammable liquid and vapour.***GHS label elements****GHS label elements***The product is classified and labelled according to the Globally Harmonised System (GHS).***Hazard pictograms**

GHS02

Signal word *Danger***Hazard statements***Highly flammable liquid and vapour.***Precautionary statements***Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.**Use explosion-proof [electrical/ventilating/lighting] equipment.**Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.**IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].**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 or information on ingredients****Mixtures****Description:** *Mixture of substances listed below with nonhazardous additions.*

(Contd. on page 2)

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Trade name: Reagent HA-A2, Component 1

(Contd. of page 1)

Dangerous components:

CAS: 64-17-5

ethanol

 Flam. Liq. 2, H225

30-50%

EINECS: 200-578-6

Additional information: For the wording of the listed hazard phrases refer to section 16.**SECTION 4: First-aid measures****Description of necessary first-aid measures****General information:** Immediately remove any clothing soiled by the product.**After inhalation:** Supply fresh air; consult doctor in case of complaints.**After skin contact:** Immediately rinse with water.**After eye contact:** Rinse opened eye for several minutes under running water.**After swallowing:** If symptoms persist consult doctor.**Most important symptoms or effects, acute and delayed** No further relevant information available.**Indication of immediate medical attention and special treatment needed, if necessary**

No further relevant information available.

SECTION 5: Fire-fighting measures**Suitable 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**Specific hazards arising from the chemical** No further relevant information available.**Special protective actions for fire fighters** No further relevant information available.**Protective equipment:** No special measures required.**SECTION 6: Accidental release measures****Personal precautions, protective equipment and emergency procedures**

Wear protective equipment. Keep unprotected persons away.

Wear protective clothing.

Environmental precautions:

Prevent seepage into sewage system, workpits and cellars.

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).

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**

Keep receptacles tightly sealed.

Keep away from heat and direct sunlight.

Information about fire - and explosion protection:

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

(Contd. on page 3)

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Trade name: Reagent HA-A2, Component 1

(Contd. of page 2)

Conditions for safe storage, including any incompatibilities

Storage:

Requirements to be met by storerooms and receptacles: *Store in a cool location.***Information about storage in one common storage facility:** *Not required.***Further information about storage conditions:***Keep container tightly sealed.**Store in cool, dry conditions in well sealed receptacles.***Storage class:** 3**Specific end use(s)** *No further relevant information available.*

SECTION 8: Exposure controls or personal protection

Control parameters

Ingredients with limit values that require monitoring at the workplace:**CAS: 64-17-5 ethanol****OEL** Short-term value: 2000 ppm**Additional information:** *The lists valid during the making were used as basis.*

Exposure controls

Appropriate engineering controls *No further data; see section 7.***Individual protection measures, such as personal protective equipment (PPE)****General protective and hygienic measures:***Immediately remove all soiled and contaminated clothing**Wash hands before breaks and at the end of work.***Respiratory protection:** *Not required.*

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.**No chemical-protective gloves required.***Material of gloves***Nitrile rubber, NBR**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.*

Eye or face protection



Tightly sealed goggles

Body protection: *Protective work clothing*

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Trade name: Reagent HA-A2, Component 1

(Contd. of page 3)

* **SECTION 9: Physical and chemical properties****Information on basic physical and chemical properties****General Information**

Physical state	Fluid
Colour:	Yellow tint
Odour:	Odourless
Odour threshold:	Not determined.
Melting point/freezing point:	Undetermined.
نقطة الغليان أو نقطة الغليان الأولية ونطاق الغليان	78 °C
Flammability	Highly flammable.
Upper or lower flammability or explosive limits	
Lower:	3.5 Vol %
Upper:	15 Vol %
Flash point:	< 23 °C
Auto-ignition temperature:	425 °C
Decomposition temperature:	Not determined.
pH at 20 °C	12.7
Viscosity:	
Viscosity	Not determined.
Dynamic:	Not determined.
Solubility	
water:	Fully miscible.
Partition coefficient: n-octanol or water	Not determined.
Vapour pressure at 20 °C:	59 hPa
Vapour density + Relative density	
Density at 20 °C:	0.895 g/cm ³
Relative density	Not determined.
Vapour density	Not determined.

Other information**Appearance:**

Form: Liquid

Important information on protection of health and environment, and on safety.

Ignition temperature: Product is not selfigniting.

Explosive properties: Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

Solvent content:

Organic solvents: 42.0 %

Water: 58.0 %

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	Highly flammable liquid and vapour.
Flammable solids	Void
Self-reactive substances and mixtures	Void
Pyrophoric liquids	Void
Pyrophoric solids	Void

(Contd. on page 5)

Trade name: Reagent HA-A2, Component 1

(Contd. of page 4)

Self-heating substances and mixtures	Void
Substances and mixtures, which emit flammable 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

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.**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: 64-17-5 ethanol**

Oral	LD50	7,060 mg/kg (rat)
Inhalative	LC50/4 h	20,000 mg/l (rat)

Skin corrosion or irritation Based on available data, the classification criteria are not met.**Serious eye damage or irritation** Based on available data, the classification criteria are not met.**Respiratory and skin sensitization** Based on available data, the classification criteria are not met.**Germ cell mutagenicity** Based on available data, the classification criteria are not met.**Carcinogenicity** Based on available data, the classification criteria are not met.**Reproductive toxicity** Based on available data, the classification criteria are not met.**Specific target organ toxicity – single exposure**

Based on available data, the classification criteria are not met.

Specific target organ toxicity – repeated exposure

Based on available data, the classification criteria are not met.

Aspiration hazards Based on available data, the classification criteria are not met.**Information on other hazards****endocrine disrupting potential**

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.

(Contd. on page 6)

Trade name: Reagent HA-A2, Component 1

(Contd. of page 5)

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.**Rinse off of bigger amounts into drains or the aquatic environment may lead to increased pH-values. A high pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably reduced, 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***Small amounts may be diluted with plenty of water and washed away. Dispose of bigger amounts in accordance with Local Authority requirements.**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****IMDG, IATA**

UN1170

UN proper shipping name**ADR**

UN1170 ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)

IMDG**IATA**

ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)

Transport hazard class(es)

Ethanol solution

ADR**Class**

3 (F1) Flammable liquids.

Label

3

IMDG, IATA**Class**

3 Flammable liquids.

Label

3

Packing group**ADR, IMDG, IATA**

II

Environmental hazards:

Not applicable.

Special precautions for user

Warning: Flammable liquids.

Hazard identification number (Kemler code): 33**EMS Number:**

F-E,S-D

Stowage Category

A

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable.

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Trade name: Reagent HA-A2, Component 1

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Transport/Additional information:

ADR

Limited quantities (LQ)	1L
Transport category	2
Tunnel restriction code	D/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 1170 ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION), 3, II

SECTION 15: Regulatory information

Safety, health and environmental regulations specific for the product in question

GHS label elements

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

Hazard pictograms



GHS02

Signal word *Danger*

Hazard statements

Highly flammable liquid and vapour.

Precautionary statements

*Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.**Use explosion-proof [electrical/ventilating/lighting] equipment.**Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.**IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].**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.

Seveso category P5c FLAMMABLE LIQUIDS

Qualifying quantity (tonnes) for the application of lower-tier requirements 5,000 t

Qualifying quantity (tonnes) for the application of upper-tier requirements 50,000 t

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:

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

ICAO: International Civil Aviation Organisation

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 Air Transport Association

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Safety data Sheet

Page 8/8

in accordance with SANS

Printing date 19.09.2024

Version 7 (replaces version 6)

Revision: 19.09.2024

Trade name: Reagent HA-A2, Component 1

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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

Flam. Liq. 2: Flammable liquids – Category 2

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

— ZA —

SECTION 1: Identification of the substance or mixture and of the supplier**Product identifier****Trade name:** Reagent HA-A2, Component 2**Synonym:** *for hardness***Article number:** 51515588A**Recommended use of the chemical and restrictions on use** *No further relevant information available.***Application of the substance / the mixture** *Laboratory chemicals***Supplier's details****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***Emergency phone number** +27 (0)861 555 777**SECTION 2: Hazard identification****Classification of the substance or mixture***Eye Irrit. 2 H319 Causes serious eye irritation.***GHS label elements****GHS label elements***The product is classified and labelled according to the Globally Harmonised System (GHS).***Hazard pictograms**

GHS07

Signal word *Warning***Hazard statements***Causes serious eye irritation.***Precautionary statements***Wash thoroughly after handling.**Wear eye protection / face protection.**IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.**If eye irritation persists: Get medical advice/attention.***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 or information on ingredients****Mixtures****Description:** *Mixture of substances listed below with nonhazardous additions.*

(Contd. on page 2)

— ZA —

Trade name: Reagent HA-A2, Component 2

(Contd. of page 1)

Dangerous components:

CAS: 1787-61-7

Eriochrome black T

⚠ Eye Irrit. 2, H319

80-100%

EINECS: 217-250-3

Additional information: For the wording of the listed hazard phrases refer to section 16.**SECTION 4: First-aid measures****Description of necessary first-aid measures****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. If symptoms persist, consult a doctor.

After swallowing: If symptoms persist consult doctor.**Most important symptoms or effects, acute and delayed** No further relevant information available.**Indication of immediate medical attention and special treatment needed, if necessary**

No further relevant information available.

*** SECTION 5: Fire-fighting measures****Suitable 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**Specific hazards arising from the chemical** No further relevant information available.**Special protective actions for fire fighters** No further relevant information available.**Protective equipment:** No special measures required.**SECTION 6: Accidental release measures****Personal precautions, protective equipment and emergency procedures** Wear protective clothing.**Environmental precautions:** Do not allow to enter sewers/ surface or ground water.**Methods and material for containment and cleaning up:** Pick up mechanically.**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**

Keep receptacles tightly sealed.

Keep away from heat and direct sunlight.

Information about fire - and explosion protection: No special measures required.**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:** 11**Specific end use(s)** No further relevant information available.

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Trade name: Reagent HA-A2, Component 2

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SECTION 8: Exposure controls or personal protection**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.

Additional information: *The lists valid during the making were used as basis.*

Exposure controls

Appropriate engineering controls *No further data; see section 7.*

Individual protection measures, such as personal protective equipment (PPE)

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: *Not required.*

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

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.

Eye or face 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

Solid

Colour:

Black

Odour:

Characteristic

Odour threshold:

Not determined.

Melting point/freezing point:

Undetermined.

نقطة الغليان أو نقطة الغليان الأولية ونطاق الغليان

Undetermined.

Flammability

Not determined.

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Upper or lower flammability or explosive limits

Lower: *Not determined.*Upper: *Not determined.*Flash point: *Not applicable.*Decomposition temperature: *Not determined.*pH *Not applicable.*

Viscosity:

Viscosity *Not applicable.*Dynamic: *Not applicable.*

Solubility

water: *Soluble.*Partition coefficient: n-octanol or water *Not determined.*Vapour pressure: *Not applicable.*

Vapour density + Relative density

Density: *Not determined.*Relative density *Not determined.*Vapour density *Not applicable.*

Other information

Appearance:

Form: *Crystalline powder*

Important information on protection of health and environment, and on safety.

Ignition temperature: *Product is not selfigniting.*Explosive properties: *Product does not present an explosion hazard.
Not determined.*

Solvent content:

Solids content: *100.0 %*

Change in condition

Evaporation rate *Not applicable.*

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 flammable 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

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.*

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Trade name: Reagent HA-A2, Component 2

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Conditions to avoid *No further relevant information available.***Incompatible materials:** *No further relevant information available.***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.***Serious eye damage or irritation** *Causes serious eye irritation.***Information on other hazards****endocrine disrupting potential***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 2 (German Regulation) (Self-assessment): hazardous for water**Do not allow product to reach ground water, water course or sewage system.**Danger to drinking water if even small quantities leak into the ground.***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****ADN, IMDG, IATA***Void***UN proper shipping name****ADR, ADN, IMDG, IATA***Void***Transport hazard class(es)****ADR, ADN, IMDG, IATA****Class***Void***Packing group****ADR, IMDG, IATA***Void***Environmental hazards:***Not applicable.***Special precautions for user***Not applicable.***Transport in bulk according to Annex II of****MARPOL 73/78 and the IBC Code***Not applicable.*

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Trade name: Reagent HA-A2, Component 2

UN "Model Regulation":

Void

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SECTION 15: Regulatory information

Safety, health and environmental regulations specific for the product in question

GHS label elements*The product is classified and labelled according to the Globally Harmonised System (GHS).***Hazard pictograms**

GHS07

Signal word *Warning***Hazard statements***Causes serious eye irritation.***Precautionary statements***Wash thoroughly after handling.**Wear eye protection / face protection.**IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.**If eye irritation persists: Get medical advice/attention.***Directive 2012/18/EU****Named dangerous substances - ANNEX I** *None of the ingredients is listed.***National regulations:****Waterhazard class:** *Water hazard class 2 (Self-assessment): 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:***RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)**ICAO: International Civil Aviation Organisation**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 Air Transport Association**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**Eye Irrit. 2: Serious eye damage/eye irritation – Category 2**** Data compared to the previous version altered.**