

09/19/2024

**Kit Components**

Product code	Description
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<b>CAY748-VxxAAE</b>	<b>CA71HA Reagent Set for hardness</b>
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Components:

51515586A	Reagent HA-A1 for hardness
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71256683A	Reagent HA-A2 for hardness
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## 1 Identification

### Product identifier

Trade name: **Reagent HA-A1**

Synonym: *for hardness*

Article number: 51515586A

Application of the substance / the mixture *Laboratory chemicals*

### Details of the supplier of the safety data sheet

#### Manufacturer/Supplier:

Endress+Hauser Conducta Inc.  
4123 E. La Palma Ave., Suite 200  
Anaheim  
CA 92807-1813  
USA

#### Information department:

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

Emergency telephone number: 001 18000 222 1222

## 2 Hazard(s) identification

### Classification of the substance or mixture

*The product is not classified, according to the Globally Harmonized System (GHS).*

### Label elements

GHS label elements *Void*

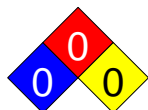
Hazard pictograms *Void*

Signal word *Void*

Hazard statements *Void*

Classification system:

NFPA ratings (scale 0 - 4)



Health = 0

Fire = 0

Reactivity = 0

HMIS-ratings (scale 0 - 4)

HEALTH	0
FIRE	0
REACTIVITY	0

Health = 0

Fire = 0

Reactivity = 0

### 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.*

## \* 3 Composition/information on ingredients

### Chemical characterization: Mixtures

Description: *Mixture of the substances listed below with nonhazardous additions.*

### Dangerous components:

CAS: 497-19-8	sodium carbonate	 Eye Irritation 2A, H319	1-2.5%
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Additional information: *For the wording of the listed hazard phrases refer to section 16.*

(Contd. on page 2)

— USA —

Trade name: Reagent HA-A1

(Contd. of page 1)

## 4 First-aid measures

### 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.

### Information for doctor:

#### 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.

## 5 Fire-fighting measures

### Extinguishing media

#### Suitable extinguishing agents:

CO<sub>2</sub>, extinguishing 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** No further relevant information available.

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

**Protective equipment:** No special measures required.

## 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.

### Protective Action Criteria for Chemicals

<b>PAC-1:</b>		
CAS: 497-19-8	sodium carbonate	7.6 mg/m <sup>3</sup>
<b>PAC-2:</b>		
CAS: 497-19-8	sodium carbonate	83 mg/m <sup>3</sup>
<b>PAC-3:</b>		
CAS: 497-19-8	sodium carbonate	500 mg/m <sup>3</sup>

## 7 Handling and storage

**Precautions for safe handling** No special measures required.

**Information about protection against explosions and fires:** No special measures required.

### 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.

(Contd. on page 3)

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**Trade name: Reagent HA-A1**

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**Storage class: 12****Specific end use(s)** *No further relevant information available.*

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## 8 Exposure controls/personal protection

**Additional information about design of technical systems:** *No further data; see section 7.***Control parameters****Components 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 that were valid during the creation were used as basis.***Exposure controls****Personal protective equipment:****General protective and hygienic measures:***The usual precautionary measures for handling chemicals should be followed.***Breathing equipment:** *Not required.***Protection of hands:** *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 through time has to be found out by the manufacturer of the protective gloves and has to be observed.***Eye protection:** *Not required.***Body protection:** *Protective work clothing*

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## 9 Physical and chemical properties

**Information on basic physical and chemical properties****General Information****Appearance:**

<b>Form:</b>	<i>Liquid</i>
<b>Color:</b>	<i>Yellow tint</i>
<b>Odor:</b>	<i>Characteristic</i>
<b>Odor threshold:</b>	<i>Not determined.</i>

**pH-value at 20 °C (68 °F):** *9-11***Change in condition**

<b>Melting point/Melting range:</b>	<i>0 °C (32 °F)</i>
<b>Boiling point/Boiling range:</b>	<i>100 °C (212 °F)</i>

**Flash point:** *Not applicable.***Flammability:** *Not applicable.***Decomposition temperature:** *Not determined.***Ignition temperature:** *Product is not selfigniting.***Danger of explosion:** *Product does not present an explosion hazard.  
Not determined.***Explosion limits:****Lower:** *Not determined.*

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(Contd. on page 4)

## Trade name: Reagent HA-A1

(Contd. of page 3)

<b>Upper:</b>	<i>Not determined.</i>
<b>Vapor pressure at 20 °C (68 °F):</b>	<i>23 hPa (17.3 mm Hg)</i>
<b>Density:</b>	<i>Not determined.</i>
<b>Relative density</b>	<i>Not determined.</i>
<b>Vapor density</b>	<i>Not determined.</i>
<b>Evaporation rate</b>	<i>Not determined.</i>
<b>Solubility in / Miscibility with</b>	
<b>Water:</b>	<i>Not miscible or difficult to mix.</i>
<b>Partition coefficient (n-octanol/water):</b>	<i>Not determined.</i>
<b>Viscosity:</b>	
<b>Dynamic:</b>	<i>Not determined.</i>
<b>Kinematic:</b>	<i>Not determined.</i>
<b>Solvent content:</b>	
<b>Water:</b>	<i>95.8 %</i>
<b>Solids content:</b>	<i>0.0 %</i>
<b>Other information</b>	<i>No further relevant information available.</i>

## 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.*

## 11 Toxicological information

**Information on toxicological effects**

**Acute toxicity:**

**LD/LC50 values that are relevant for classification:**

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

Oral	LD50	4,090 mg/kg (rat)
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**Primary irritant effect:**

**on the skin:** *No irritant effect.*

**on the eye:** *No irritating effect.*

**Sensitization:** *No sensitizing effects known.*

**Additional toxicological information:**

*The product is not subject to classification according to internally approved calculation methods for preparations:*

*When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.*

## 12 Ecological information

**Toxicity**

**Aquatic toxicity:** *No further relevant information available.*

**Persistence and degradability** *No further relevant information available.*

**Behavior in environmental systems:**

**Bioaccumulative potential** *No further relevant information available.*

**Mobility in soil** *No further relevant information available.*

(Contd. on page 5)

**Trade name: Reagent HA-A1**

(Contd. of page 4)

**Additional ecological information:**

**General notes:**

*Water hazard class 1 (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.*

**Results of PBT and vPvB assessment**

**PBT:** *Not applicable.*

**vPvB:** *Not applicable.*

**Other adverse effects** *No further relevant information available.*

**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.*

*Smaller quantities can be disposed of with household waste.*

**Uncleaned packagings:**

**Recommendation:** *Disposal must be made according to official regulations.*

**14 Transport information**

**UN-Number**

**DOT, ADN, IMDG, IATA** *Void*

**UN proper shipping name**

**DOT, ADN, IMDG, IATA** *Void*

**Transport hazard class(es)**

**DOT, ADN, IMDG, IATA**

**Class** *Void*

**Packing group**

**DOT, IMDG, IATA** *Void*

**Environmental hazards:**

**Marine pollutant:** *No*

**Special precautions for user** *Not applicable.*

**Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** *Not applicable.*

**Transport/Additional information:** *Not dangerous according to the above specifications.*

**UN "Model Regulation":** *Void*

**15 Regulatory information**

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

**Section 355 (extremely hazardous substances):**

*None of the ingredient is listed.*

**Section 313 (Specific toxic chemical listings):**

*None of the ingredients is listed.*

**TSCA (Toxic Substances Control Act):**

*All components have the value ACTIVE.*

**Hazardous Air Pollutants**

*None of the ingredients is listed.*

(Contd. on page 6)

## Trade name: Reagent HA-A1

(Contd. of page 5)

## Proposition 65

**Chemicals known to cause cancer:***None of the ingredients is listed.***Chemicals known to cause reproductive toxicity for females:***None of the ingredients is listed.***Chemicals known to cause reproductive toxicity for males:***None of the ingredients is listed.***Chemicals known to cause developmental toxicity:***None of the ingredients is listed.*

## Carcinogenicity categories

**EPA (Environmental Protection Agency)***None of the ingredients is listed.***TLV (Threshold Limit Value)***None of the ingredients is listed.***MAK (German Maximum Workplace Concentration)***None of the ingredients is listed.***NIOSH-Ca (National Institute for Occupational Safety and Health)***None of the ingredients is listed.*GHS label elements *Void*Hazard pictograms *Void*Signal word *Void*Hazard statements *Void*

## National regulations:

**Water hazard class:** *Water hazard class 1 (Self-assessment): slightly hazardous for water.***Chemical safety assessment:** *A Chemical Safety Assessment has not been carried out.***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***Date of preparation / last revision** *09/19/2024 / 6***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**DOT: US Department of Transportation**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)**NFPA: National Fire Protection Association (USA)**HMIS: Hazardous Materials Identification System (USA)**LC50: Lethal concentration, 50 percent**LD50: Lethal dose, 50 percent**PBT: Persistent, Bioaccumulative and Toxic**vPvB: very Persistent and very Bioaccumulative**NIOSH: National Institute for Occupational Safety**TLV: Threshold Limit Value**PEL: Permissible Exposure Limit**REL: Recommended Exposure Limit**Eye Irritation 2A: Serious eye damage/eye irritation – Category 2A***\* Data compared to the previous version altered.**

## 1 Identification

**Product identifier****Trade name:** Reagent HA-A2**Synonym:** *for hardness***Article number:** 71256683A**Application of the substance / the mixture** *Laboratory chemicals***Details of the supplier of the safety data sheet****Manufacturer/Supplier:**

Endress+Hauser Conducta Inc.  
4123 E. La Palma Ave., Suite 200  
Anaheim  
CA 92807-1813  
USA

**Information department:**

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

**Emergency telephone number:** 001 18000 222 1222

## 2 Hazard(s) identification

**Classification of the substance or mixture**

GHS02 Flame

*Flammable Liquids 2 H225 Highly flammable liquid and vapor.*

GHS08 Health hazard

*Carcinogenicity 1A H350 May cause cancer.***Label elements****GHS label elements***The product is classified and labeled according to the Globally Harmonized System (GHS).***Hazard pictograms**

GHS02 GHS08

**Signal word** *Danger***Hazard-determining components of labeling:***ethanol***Hazard statements***Highly flammable liquid and vapor.**May cause cancer.***Precautionary statements***Keep away from heat/sparks/open flames/hot surfaces. - No smoking.**Use explosion-proof electrical/ventilating/lighting/equipment.**If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.**Store locked up.**Dispose of contents/container in accordance with local/regional/national/international regulations.*

(Contd. on page 2)

— USA —



Trade name: Reagent HA-A2

(Contd. of page 1)

**Classification system:****NFPA ratings (scale 0 - 4)****HMIS-ratings (scale 0 - 4)**

HEALTH	0	Health = *0
FIRE	3	Fire = 3
REACTIVITY	0	Reactivity = 0

**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.

**\* 3 Composition/information on ingredients****Chemical characterization: Mixtures**

**Description:** Mixture of the substances listed below with nonhazardous additions.

**Dangerous components:**

CAS: 64-17-5	ethanol	Flammable Liquids 2, H225;  Carcinogenicity 1A, H350	30-50%
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**Additional information:** For the wording of the listed hazard phrases refer to section 16.

**4 First-aid measures****Description of 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.

**Information for doctor:****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.

**5 Fire-fighting measures****Extinguishing media****Suitable extinguishing agents:**

CO<sub>2</sub>, extinguishing 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** No further relevant information available.

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

**Protective equipment:** No special measures required.

(Contd. on page 3)

— USA —

Trade name: Reagent HA-A2

(Contd. of page 2)

## 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.

### Protective Action Criteria for Chemicals

<b>PAC-1:</b>		
CAS: 64-17-5	ethanol	1,800 ppm
<b>PAC-2:</b>		
CAS: 64-17-5	ethanol	3300* ppm
<b>PAC-3:</b>		
CAS: 64-17-5	ethanol	15000* ppm

## 7 Handling and storage

### Precautions for safe handling

Keep receptacles tightly sealed.

Keep away from heat and direct sunlight.

Ensure good ventilation/exhaustion at the workplace.

Open and handle receptacle with care.

### Information about protection against explosions and fires:

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

Keep respiratory protective device available.

### 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 receptacle tightly sealed.

Store in cool, dry conditions in well sealed receptacles.

**Storage class:** 3

**Specific end use(s)** No further relevant information available.

## 8 Exposure controls/personal protection

**Additional information about design of technical systems:** No further data; see section 7.

### Control parameters

<b>Components with limit values that require monitoring at the workplace:</b>	
<b>CAS: 64-17-5 ethanol</b>	
PEL	Long-term value: 1900 mg/m <sup>3</sup> , 1000 ppm
REL	Long-term value: 1900 mg/m <sup>3</sup> , 1000 ppm

(Contd. on page 4)

**Trade name: Reagent HA-A2**

(Contd. of page 3)

TLV	Short-term value: 1000 ppm A3
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**Additional information:** *The lists that were valid during the creation were used as basis.*

**Exposure controls****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.  
Store protective clothing separately.*

**Breathing equipment:**

*In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.*

**Protection of hands:**

*Protective gloves*

*To avoid skin problems reduce the wearing of gloves to the required minimum.  
Only use chemical-protective gloves with CE-labeling 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  
Natural rubber, NR  
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.*

**Eye protection:**

*Tightly sealed goggles*

**Body protection:** *Protective work clothing*

## \* 9 Physical and chemical properties

**Information on basic physical and chemical properties****General Information****Appearance:**

<b>Form:</b>	<i>Liquid</i>
<b>Color:</b>	<i>Yellow</i>
<b>Odor:</b>	<i>Alcohol-like</i>
<b>Odor threshold:</b>	<i>Not determined.</i>
<b>pH-value:</b>	<i>Neutral</i>

**Change in condition**

<b>Melting point/Melting range:</b>	<i>Undetermined.</i>
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(Contd. on page 5)

## Trade name: Reagent HA-A2

(Contd. of page 4)

<b>Boiling point/Boiling range:</b>	78 °C (172.4 °F)
<b>Flash point:</b>	< 23 °C (< 73.4 °F)
<b>Flammability:</b>	Highly flammable.
<b>Auto igniting:</b>	425 °C (797 °F)
<b>Decomposition temperature:</b>	Not determined.
<b>Ignition temperature:</b>	Product is not selfigniting.
<b>Danger of explosion:</b>	Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
<b>Explosion limits:</b>	
<b>Lower:</b>	3.5 Vol %
<b>Upper:</b>	15 Vol %
<b>Vapor pressure at 20 °C (68 °F):</b>	59 hPa (44.3 mm Hg)
<b>Density:</b>	Not determined.
<b>Relative density</b>	Not determined.
<b>Vapor density</b>	Not determined.
<b>Evaporation rate</b>	Not determined.
<b>Solubility in / Miscibility with</b>	
<b>Water:</b>	Fully miscible.
<b>Partition coefficient (n-octanol/water):</b>	Not determined.
<b>Viscosity:</b>	
<b>Dynamic:</b>	Not determined.
<b>Kinematic:</b>	Not determined.
<b>Solvent content:</b>	
<b>Organic solvents:</b>	42.0 %
<b>Water:</b>	57.7 %
<b>Solids content:</b>	0.0 %
<b>Other information</b>	No further relevant information available.

## 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.

## 11 Toxicological information

### Information on toxicological effects

#### Acute toxicity:

#### LD/LC50 values that are relevant for classification:

**CAS: 64-17-5 ethanol**

Oral	LD50	7,060 mg/kg (rat)
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Inhalative	LC50/4 h	20,000 mg/l (rat)
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#### Primary irritant effect:

**on the skin:** No irritant effect.

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**Trade name: Reagent HA-A2**

(Contd. of page 5)

**on the eye:** *No irritating effect.*

**Sensitization:** *No sensitizing effects known.*

**Additional toxicological information:**

*The product shows the following dangers according to internally approved calculation methods for preparations:*

**Carcinogenic categories**

<b>IARC (International Agency for Research on Cancer)</b>	
CAS: 64-17-5	ethanol
	1

## 12 Ecological information

**Toxicity**

**Aquatic toxicity:** *No further relevant information available.*

**Persistence and degradability** *No further relevant information available.*

**Behavior in environmental systems:**

**Bioaccumulative potential** *No further relevant information available.*

**Mobility in soil** *No further relevant information available.*

**Additional ecological information:**

**General notes:**

*Water hazard class 1 (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.*

**Results of PBT and vPvB assessment**

**PBT:** *Not applicable.*

**vPvB:** *Not applicable.*

**Other adverse effects** *No further relevant information available.*

## 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 of together with household garbage. Do not allow product to reach sewage system.*

**Uncleaned packagings:**

**Recommendation:** *Disposal must be made according to official regulations.*

**Recommended cleansing agent:** *Water, if necessary with cleansing agents.*

## 14 Transport information

**UN-Number**

**DOT, IMDG, IATA**

UN1170

**UN proper shipping name**

**DOT**

Ethanol solutions

**IMDG**

ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)

**IATA**

Ethanol solution

**Transport hazard class(es)**

**DOT**



**Class**

3 Flammable liquids

(Contd. on page 7)

Trade name: Reagent HA-A2

(Contd. of page 6)

Label 3

IMDG, IATA



Class 3 Flammable liquids  
 Label 3  
 Packing group II  
 DOT, 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 MARPOL73/78 and the IBC Code Not applicable.  
 Transport/Additional information:  
 DOT  
 Quantity limitations On passenger aircraft/rail: 5 L  
 On cargo aircraft only: 60 L

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

15 Regulatory information

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

<b>Section 355 (extremely hazardous substances):</b>
<i>None of the ingredient is listed.</i>
<b>Section 313 (Specific toxic chemical listings):</b>
<i>None of the ingredients is listed.</i>
<b>TSCA (Toxic Substances Control Act):</b>
<i>All components have the value ACTIVE.</i>
<b>Hazardous Air Pollutants</b>
<i>None of the ingredients is listed.</i>
<b>Proposition 65</b>
<b>Chemicals known to cause cancer:</b>
<i>None of the ingredients is listed.</i>
<b>Chemicals known to cause reproductive toxicity for females:</b>
<i>None of the ingredients is listed.</i>
<b>Chemicals known to cause reproductive toxicity for males:</b>
<i>None of the ingredients is listed.</i>
<b>Chemicals known to cause developmental toxicity:</b>
CAS: 64-17-5   ethanol

(Contd. on page 8)

Trade name: Reagent HA-A2

(Contd. of page 7)

**Carcinogenicity categories****EPA (Environmental Protection Agency)**

None of the ingredients is listed.

**TLV (Threshold Limit Value)**

CAS: 64-17-5 ethanol

A3

**MAK (German Maximum Workplace Concentration)**

CAS: 64-17-5 ethanol

5

**NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

**GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

**Hazard pictograms**

GHS02 GHS08

**Signal word** *Danger***Hazard-determining components of labeling:***ethanol***Hazard statements***Highly flammable liquid and vapor.**May cause cancer.***Precautionary statements***Keep away from heat/sparks/open flames/hot surfaces. - No smoking.**Use explosion-proof electrical/ventilating/lighting/equipment.**If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.**Store locked up.**Dispose of contents/container in accordance with local/regional/national/international regulations.***National regulations:****Information about limitation of use:***Workers are not allowed to be exposed to the hazardous carcinogenic materials contained in this preparation. Exceptions can be made by the authorities in certain cases.***Water hazard class:** *Water hazard class 1 (Self-assessment): slightly hazardous for water.***Chemical safety assessment:** *A Chemical Safety Assessment has not been carried out.***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***Date of preparation / last revision** *09/19/2024 / 4***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)**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**DOT: US Department of Transportation**IATA: International Air Transport Association**EINECS: European Inventory of Existing Commercial Chemical Substances**ELINCS: European List of Notified Chemical Substances*

(Contd. on page 9)

# Safety Data Sheet

acc. to OSHA HCS

Page 9/9

Printing date 09/19/2024

Version 5

Reviewed on 09/19/2024

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## Trade name: Reagent HA-A2

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(Contd. of page 8)

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Flammable Liquids 2: Flammable liquids – Category 2

Carcinogenicity 1A: Carcinogenicity – Category 1A

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

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USA