Printing date 11/07/2018 Reviewed on 11/07/2018

1 Identification

- · Product identifier
- · Product Name: Acetaldehyde in Water
- · Part Number: S-125-W1.8
- $\cdot \textbf{\textit{Application of the substance / the mixture } \textit{Certified Reference Material} \\$
- · Details of the supplier of the safety data sheet
- · Manufacturer/Supplier:

SPEX CertiPrep, LLC.

203 Norcross Ave, Metuchen,

NJ 08840 USA

- · Information department: product safety department
- · Emergency telephone number:

Emergency Phone Number (24 hours)

CHEMTREC (800-424-9300)

Outside US: 703-527-3887

2 Hazard(s) identification

· Classification of the substance or mixture



GHS08 Health hazard

Carc. 2 H351 Suspected of causing cancer.

- · Label elements
- · GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).
- · Hazard pictograms



- · Signal word Warning
- · Hazard statements
- H351 Suspected of causing cancer.
- · Precautionary statements

If medical advice is needed, have product container or label at hand.

Keep out of reach of children.

Read label before use.

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Wear protective gloves/protective clothing/eye protection/face protection.

IF exposed or concerned: Get medical advice/attention.

Store locked up.

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

- · Classification system:
- · NFPA ratings (scale 0 4)



Fire = 0Reactivity = 0

· HMIS-ratings (scale 0 - 4)



- · Other hazards
- · Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · vPvB: Not applicable.

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Product Name: Acetaldehyde in Water

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3 Composition/information on ingredients

- · Chemical characterization: Mixtures
- · Description: Mixture of the substances listed below with nonhazardous additions.
- · Dangerous components:

75-07-0 acetaldehyde

0.1%

· Chemical identification of the substance/preparation

7732-18-5 water, distilled, conductivity or of similar purity

99.9%

4 First-aid measures

- · Description of 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: Do not give anything to eat or drink Do not induce vomitting
- · 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: Use fire fighting measures that suit the environment.
- · Special hazards arising from the substance or mixture No further relevant information available.
- · Advice for firefighters
- · Protective equipment: No special measures required.

6 Accidental release measures

- $\cdot \textit{Personal precautions, protective equipment and emergency procedures} \ \textit{Not required}.$
- · Environmental precautions: Dilute with plenty of 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

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

PA	C-	1

75-07-0 acetaldehyde

45 ppm

· PAC-2:

75-07-0 acetaldehyde

270 ppm

· PAC-3:

75-07-0 acetaldehyde

840 ppm

7 Handling and storage

- · Handling:
- · Precautions for safe handling No special precautions are necessary if used correctly.
- · Information about protection against explosions and fires: 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.
- $\cdot \textit{Specific end use}(s) \textit{ No further relevant information available}.$

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(Contd. of page 2)

8 Exposure controls/personal protection

- · Additional information about design of technical systems: No further data; see item 7.
- · Control parameters
- · Components with limit values that require monitoring at the workplace:

75-07-0 acetaldehyde

PEL Long-term value: 360 mg/m³, 200 ppm REL See Pocket Guide Apps. A and C

TLV Ceiling limit value: 45 mg/m³, 25 ppm

- · Additional information: The lists that were valid during the creation were used as basis.
- · Exposure controls
- · Personal protective equipment:
- · General protective and hygienic measures: Wash hands before breaks and at the end of work.
- · Respiratory protection: Not required.
- · Protection of hands:

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· 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: Goggles recommended during refilling.

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· Information on	hasic	nhvsical	and	chemical	nronerties
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· General Information

· Appearance:

Form: Liquid

Color: According to product specification

Odor: Characteristic
 Odour Threshold: Not applicable.
 pH-value: Not applicable.

· Change in condition

Melting point/Melting range:Undetermined.Boiling point/Boiling range:100 °C (212 °F)

• Flash point: Not applicable.
• Flammability (solid gaseous): Not applicable.

Flammability (solid, gaseous): Not applicable.
 Decomposition temperature: Not applicable.

· Auto igniting: Product is not selfigniting.

· Danger of explosion: Product does not present an explosion hazard.

· Explosion limits:

Lower:Not applicable.Upper:Not applicable.

• Vapor pressure at 20 °C (68 °F): 23 hPa (17.3 mm Hg)

• Density at 20 °C (68 °F) 0.99978 g/cm³ (8.34316 lbs/gal)

Relative density
 Vapor density
 Evaporation rate
 Not applicable.
 Not applicable.

· Solubility in / Miscibility with

Water: Fully miscible.

· Partition coefficient (n-octanol/water): Not applicable.

Viscosity:

Dynamic: Not applicable. **Kinematic:** Not applicable.

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Solvent content:
Water: 99.9 %
VOC content: 0.00 %

Solids content: 0.0 %
Other information 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:
- Primary irritant effect:
- · on the skin: No irritant effect.
- · on the eye: No irritating effect.
- · Sensitization: No sensitizing effects known.
- · Additional toxicological information:
- · Carcinogenic categories

· Carcinogenic tutegories	
· IARC (International Agency for Research on Cancer)	
75-07-0 acetaldehyde	2 <i>B</i>
· NTP (National Toxicology Program)	
75-07-0 acetaldehyde	R
· OSHA-Ca (Occupational Safety & Health Administration)	
None of the ingredients is listed.	

12 Ecological information

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- $\cdot \textit{Persistence and degradability} \ \textit{No further relevant information available}.$
- · Behavior in environmental systems:
- . Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.
- · Additional ecological information:
- · General notes: Not hazardous for water.
- · 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: 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.

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Product Name: Acetaldehyde in Water

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UN-Number		
DOT, ADR, ADN, IMDG, IATA	Not Regulated	
UN proper shipping name DOT, ADR, ADN, IMDG, IATA	Not Regulated	
Transport hazard class(es)		
DOT, ADR, ADN, IMDG, IATA Class	Not Regulated	
Packing group DOT, ADR, IMDG, IATA	Not Regulated	
Environmental hazards:	Not applicable.	
Special precautions for user	Not applicable.	
Transport in bulk according to Annex II of MARPO	L73/78 and the IBC	
Code	Not applicable.	
UN "Model Regulation":	Not Regulated	

15 Regulatory information

- · Safety, health and environmental regulations/legislation specific for the substance or mixture
- · Section 313 (Specific toxic chemical listings):

75-07-0 acetaldehyde

· TSCA (Toxic Substances Control Act):

All ingredients are listed.

- Proposition 65
- · Chemicals known to cause cancer:

75-07-0 acetaldehyde

· 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.

- · Carcinogenic categories
- · EPA (Environmental Protection Agency)

75-07-0 acetaldehyde

*B*2

· TLV (Threshold Limit Value established by ACGIH)

75-07-0 acetaldehyde

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

75-07-0 acetaldehyde

А3

- · GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).
- · Hazard pictograms



GHS08

- · Signal word Warning
- · Hazard statements
- H351 Suspected of causing cancer.
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Safety Data Sheet acc. to OSHA HCS

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Product Name: Acetaldehyde in Water

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Wear protective gloves/protective clothing/eye protection/face protection.

IF exposed or concerned: Get medical advice/attention.

Store locked up.

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

· 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: product safety department
- · Contact:

SPEX CertiPrep, LLC.

1-732-549-7144

- $\cdot \textit{Date of preparation / last revision } 11/07/2018 \, / \, -$
- · Abbreviations and acronyms:

ADR: Accord européen sur le transport 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

ATA: International Air Transport Association
ACGIH: American Conference of Governmental Industrial Hygienists
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)

VOC: Volatile Organic Compounds (USA, EU)

PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety OSHA: Occupational Safety & Health TLV: Threshold Limit Value

PEL: Permissible Exposure Limit REL: Recommended Exposure Limit

Carc. 2: Carcinogenicity - Category 2