

Safety Data Sheet

acc. to OSHA HCS

Printing date 02/02/2021

Reviewed on 02/02/2021

1 Identification

- **Product identifier**
- **Trade name:** GC Calibration Standard Level 5
10,000 ppm w/w IPA:TAA:VA:TBA
- **Article number:** HON184
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Aqua Solutions, Inc.
6913 Highway 225
DEER PARK, TX 77536
USA
800-256-2586
- **Information department:**
Technical Coordinator
Sherman Nelson sherman@aquasolutions.org
- **Emergency telephone number:**
Chemtrec: 800-424-9300
Canutec: 613-996-6666



2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS08 Health hazard

Carc. 2 H351 Suspected of causing cancer.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

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



GHS07 GHS08

- **Signal word** Warning
- **Hazard-determining components of labeling:**
Vinyl Acetate, Reagent Grade
- **Hazard statements**
Causes skin irritation.
Suspected of causing cancer.
- **Precautionary statements**
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Wash thoroughly after handling.
Wear protective gloves/protective clothing/eye protection/face protection.
If on skin: Wash with plenty of water.

(Contd. on page 2)

Safety Data Sheet

acc. to OSHA HCS

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Reviewed on 02/02/2021

Trade name: GC Calibration Standard Level 5
10,000 ppm w/w IPA:TAA:VA:TBA

(Contd. of page 1)

IF exposed or concerned: Get medical advice/attention.

Specific treatment (see on this label).

Take off contaminated clothing and wash it before reuse.

If skin irritation occurs: 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)**



· **HMIS-ratings (scale 0 - 4)**

HEALTH	1	Health = 1
FIRE	0	Fire = 0
REACTIVITY	0	Reactivity = 0

· **Other hazards**

· **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: 67-63-0	Isopropanol	1.0%
CAS: 75-65-0	tert-Butyl Alcohol	1.0%
CAS: 75-85-4	2-methyl-2-butanol	1.0%
CAS: 108-05-4	Vinyl Acetate, Reagent Grade	1.0%

· **Table of Nonhazardous Ingredients**

CAS: 7732-18-5	Water	96.0%
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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.

· **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.

US

(Contd. on page 3)

Safety Data Sheet

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Trade name: GC Calibration Standard Level 5
10,000 ppm w/w IPA:TAA:VA:TBA

(Contd. of page 2)

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

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **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).
 Dispose contaminated material as waste according to item 13.
- **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**

· PAC-1:

CAS: 67-63-0	Isopropanol	400 ppm
CAS: 75-65-0	tert-Butyl Alcohol	150 ppm
CAS: 108-05-4	Vinyl Acetate, Reagent Grade	6.7 ppm

· PAC-2:

CAS: 67-63-0	Isopropanol	2000* ppm
CAS: 75-65-0	tert-Butyl Alcohol	1,300 ppm
CAS: 108-05-4	Vinyl Acetate, Reagent Grade	36 ppm

· PAC-3:

CAS: 67-63-0	Isopropanol	12000** ppm
CAS: 75-65-0	tert-Butyl Alcohol	8000* ppm
CAS: 108-05-4	Vinyl Acetate, Reagent Grade	180 ppm

7 Handling and storage

- **Handling:**
- **Precautions for safe handling** Open and handle receptacle with care.
- **Information about protection against explosions and fires:** 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 receptacle tightly sealed.

(Contd. on page 4)

US

Safety Data Sheet

acc. to OSHA HCS

Printing date 02/02/2021

Reviewed on 02/02/2021

Trade name: GC Calibration Standard Level 5
10,000 ppm w/w IPA:TAA:VA:TBA

(Contd. of page 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 item 7.

· **Control parameters**

· **Components with limit values that require monitoring at the workplace:**

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.

At this time, the remaining constituent has no known exposure limits.

CAS: 67-63-0 Isopropanol

PEL Long-term value: 980 mg/m³, 400 ppm

REL Short-term value: 1225 mg/m³, 500 ppm
 Long-term value: 980 mg/m³, 400 ppm

TLV Short-term value: 984 mg/m³, 400 ppm
 Long-term value: 492 mg/m³, 200 ppm
 BEI

CAS: 75-65-0 tert-Butyl Alcohol

PEL Long-term value: 300 mg/m³, 100 ppm

REL Short-term value: 450 mg/m³, 150 ppm
 Long-term value: 300 mg/m³, 100 ppm

TLV Long-term value: 303 mg/m³, 100 ppm

CAS: 108-05-4 Vinyl Acetate, Reagent Grade

REL Ceiling limit value: 15* mg/m³, 4* ppm
 *15-min

TLV Short-term value: 53 mg/m³, 15 ppm
 Long-term value: 35 mg/m³, 10 ppm

· **Ingredients with biological limit values:**

CAS: 67-63-0 Isopropanol

BEI 40 mg/L

LD50 Intraperitoneal: urine

Time: end of shift at end of workweek

LD50: Acetone (background, nonspecific)

· **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.

Avoid contact with the skin.

Avoid contact with the eyes and skin.

· **Breathing equipment:** Not required.

(Contd. on page 5)

US

Safety Data Sheet

acc. to OSHA HCS

Printing date 02/02/2021

Reviewed on 02/02/2021

Trade name: GC Calibration Standard Level 5
10,000 ppm w/w IPA:TAA:VA:TBA

(Contd. of page 4)

· **Protection of hands:**



Protective gloves

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.

· **Body protection:** Protective work clothing

9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form:	Liquid
Color:	Colorless
Odor:	Characteristic
Odor threshold:	Not determined.

· **pH-value:** Not determined.

· **Change in condition**

Melting point/Melting range:	0 °C (32 °F)
Boiling point/Boiling range:	100 °C (212 °F)

· **Flash point:** Not applicable.

· **Flammability (solid, gaseous):** Not applicable.

· **Decomposition temperature:** Not determined.

· **Auto igniting:** Product is not selfigniting.

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

· **Explosion limits:**

Lower:	Not determined.
Upper:	Not determined.

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

· **Density at 20 °C (68 °F):** 0.99298 g/cm³ (8.28642 lbs/gal)

· **Relative density** Not determined.

· **Vapor density** Not determined.

· **Evaporation rate** Not determined.

(Contd. on page 6)

Safety Data Sheet

acc. to OSHA HCS

Printing date 02/02/2021

Reviewed on 02/02/2021

Trade name: GC Calibration Standard Level 5
10,000 ppm w/w IPA:TAA:VA:TBA

(Contd. of page 5)

- | | |
|---------------------------------------------------|--------------------------------------------|
| · Solubility in / Miscibility with Water: | Fully miscible. |
| · Partition coefficient (n-octanol/water): | Not determined. |
| · Viscosity: | |
| Dynamic: | Not determined. |
| Kinematic: | Not determined. |
| · Solvent content: | |
| Organic solvents: | 1.0 % |
| Water: | 96.0 % |
| VOC content: | 1.00 % |
| | 9.9 g/l / 0.08 lb/gal |
| · Solids content: | 1.0 % |
| · 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:**

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

ATE (Acute Toxicity Estimate)

Oral	LD50	61,329 mg/kg (rat)
Dermal	LD50	233,500 mg/kg (rabbit)
Inhalative	LC50/4h	350 mg/l

CAS: 108-05-4 Vinyl Acetate, Reagent Grade

Inhalative	LC50/4h	11 mg/l (ATE)
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- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **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:
Irritant

(Contd. on page 7)

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acc. to OSHA HCS

Printing date 02/02/2021

Reviewed on 02/02/2021

Trade name: GC Calibration Standard Level 5
10,000 ppm w/w IPA:TAA:VA:TBA

(Contd. of page 6)

· **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**

CAS: 67-63-0	Isopropanol	3
CAS: 108-05-4	Vinyl Acetate, Reagent Grade	2B

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

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:**

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** Not regulated

· **UN proper shipping name**

· **DOT, IMDG, IATA** Not regulated

· **Transport hazard class(es)**

· **DOT, ADN, IMDG, IATA**

· **Class** Not regulated

(Contd. on page 8)

Safety Data Sheet

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Printing date 02/02/2021

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Trade name: GC Calibration Standard Level 5
10,000 ppm w/w IPA:TAA:VA:TBA

(Contd. of page 7)

- | | |
|----------------------------------------------------------------------------------|-----------------|
| · Packing group | |
| · DOT, IMDG, IATA | Not regulated |
| · Environmental hazards: | Not applicable. |
| · Special precautions for user | Not applicable. |
| · Transport in bulk according to Annex II of MARPOL73/78 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**
 No further relevant information available.
- **Sara**

· Section 355 (extremely hazardous substances):

CAS: 108-05-4	Vinyl Acetate, Reagent Grade
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· Section 313 (Specific toxic chemical listings):

CAS: 67-63-0	Isopropanol
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CAS: 75-65-0	tert-Butyl Alcohol
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CAS: 108-05-4	Vinyl Acetate, Reagent Grade
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· TSCA (Toxic Substances Control Act):

Water	ACTIVE
Isopropanol	ACTIVE
tert-Butyl Alcohol	ACTIVE
2-methyl-2-butanol	ACTIVE
Vinyl Acetate, Reagent Grade	ACTIVE

· Hazardous Air Pollutants

CAS: 108-05-4	Vinyl Acetate, Reagent Grade
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· 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.

· Carcinogenic categories

· EPA (Environmental Protection Agency)

None of the ingredients is listed.

· TLV (Threshold Limit Value established by ACGIH)

CAS: 67-63-0	Isopropanol
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A4

(Contd. on page 9)

Safety Data Sheet

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Trade name: GC Calibration Standard Level 5
10,000 ppm w/w IPA:TAA:VA:TBA

(Contd. of page 8)

CAS: 75-65-0	tert-Butyl Alcohol	A4
CAS: 108-05-4	Vinyl Acetate, Reagent Grade	A3

· **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**



GHS07 GHS08

· **Signal word** Warning

· **Hazard-determining components of labeling:**

Vinyl Acetate, Reagent Grade

· **Hazard statements**

Causes skin irritation.

Suspected of causing cancer.

· **Precautionary statements**

Obtain special instructions before use.

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

Wash thoroughly after handling.

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

If on skin: Wash with plenty of water.

IF exposed or concerned: Get medical advice/attention.

Specific treatment (see on this label).

Take off contaminated clothing and wash it before reuse.

If skin irritation occurs: 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:** Environment protection department.

· **Contact:**

· **Date of preparation / last revision** 02/02/2021 / -

· **Abbreviations and acronyms:**

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: 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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

(Contd. on page 10)

Safety Data Sheet
acc. to OSHA HCS

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Trade name: GC Calibration Standard Level 5
10,000 ppm w/w IPA:TAA:VA:TBA

(Contd. of page 9)

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
BEI: Biological Exposure Limit
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Carc. 2: Carcinogenicity – Category 2

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