

Safety Data Sheet

acc. to OSHA HCS

Printing date 12/30/2021

Reviewed on 12/30/2021

1 Identification

- **Product identifier**
- **Trade name:** Mixed Organic Standard
150 mg/kg Each Component
- **Article number:** COR001
- **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 shermann@aquasolutions.org
- **Emergency telephone number:**
Chemtrec: 800-424-9300
Canutec: 613-996-6666



2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS02 Flame

Flam. Liq. 2 H225 Highly flammable liquid and vapor.



GHS07

Eye Irrit. 2A H319 Causes serious eye irritation.

STOT SE 3 H336 May cause drowsiness or dizziness.

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



GHS02



GHS07

- **Signal word** Danger
- **Hazard-determining components of labeling:**
Isopropanol
- **Hazard statements**
Highly flammable liquid and vapor.
Causes serious eye irritation.
May cause drowsiness or dizziness.
- **Precautionary statements**
Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
Ground/bond container and receiving equipment.

(Contd. on page 2)

Safety Data Sheet

acc. to OSHA HCS

Printing date 12/30/2021

Reviewed on 12/30/2021

Trade name: Mixed Organic Standard
150 mg/kg Each Component

(Contd. of page 1)

Use explosion-proof electrical/ventilating/lighting/equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

Avoid breathing dust/fume/gas/mist/vapors/spray

Wash thoroughly after handling.

Use only outdoors or in a well-ventilated area.

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

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

Call a poison center/doctor if you feel unwell.

If eye irritation persists: Get medical advice/attention.

In case of fire: Use CO₂, powder or water spray to extinguish.

Store in a well-ventilated place. Keep container tightly closed.

Store in a well-ventilated place. Keep cool.

Store locked up.

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

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



Health = 2

Fire = 3

Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**



Health = 2

Fire = 3

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	99.835%
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· **Table of Nonhazardous Ingredients**

CAS: 71-23-8	n-propanol	0.015%
CAS: 75-65-0	tert-Butyl Alcohol	0.015%
CAS: 75-97-8	3,3-Dimethyl-2-butanone	0.015%
CAS: 78-92-2	sec-Butyl Alcohol 99%	0.015%
CAS: 78-93-3	Methyl Ethyl Ketone	0.015%
CAS: 108-10-1	Methyl Isobutyl Ketone (4-Methyl-2-pentanone)	0.015%

(Contd. on page 3)

Safety Data Sheet

acc. to OSHA HCS

Printing date 12/30/2021

Reviewed on 12/30/2021

Trade name: Mixed Organic Standard
150 mg/kg Each Component

(Contd. of page 2)

CAS: 108-11-2	4-methylpentan-2-ol	0.015%
CAS: 110-82-7	Cyclohexane	0.015%
CAS: 540-84-1	2,2,4-Trimethylpentane (Iso-Octane)	0.015%
CAS: 565-61-7	3-Methyl-2-pentanone	0.015%
CAS: 592-76-7	1-Heptene	0.015%

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. If symptoms persist, consult a doctor.
- **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:**
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **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**
Wear protective equipment. Keep unprotected persons away.
- **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.
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**

· PAC-1:		
CAS: 67-63-0	Isopropanol	400 ppm
CAS: 71-23-8	n-propanol	250 ppm

(Contd. on page 4)

Safety Data Sheet

acc. to OSHA HCS

Printing date 12/30/2021

Reviewed on 12/30/2021

Trade name: Mixed Organic Standard
150 mg/kg Each Component

(Contd. of page 3)

CAS: 75-65-0	<i>tert-Butyl Alcohol</i>	150 ppm
CAS: 75-97-8	<i>3,3-Dimethyl-2-butanone</i>	0.45 ppm
CAS: 78-92-2	<i>sec-Butyl Alcohol 99%</i>	150 ppm
CAS: 78-93-3	<i>Methyl Ethyl Ketone</i>	200 ppm
CAS: 108-10-1	<i>Methyl Isobutyl Ketone (4-Methyl-2-pentanone)</i>	75 ppm
CAS: 110-82-7	<i>Cyclohexane</i>	300 ppm
CAS: 540-84-1	<i>2,2,4-Trimethylpentane (Iso-Octane)</i>	230 ppm
CAS: 592-76-7	<i>1-Heptene</i>	130 ppm

· **PAC-2:**

CAS: 67-63-0	<i>Isopropanol</i>	2000* ppm
CAS: 71-23-8	<i>n-propanol</i>	670 ppm
CAS: 75-65-0	<i>tert-Butyl Alcohol</i>	1,300 ppm
CAS: 75-97-8	<i>3,3-Dimethyl-2-butanone</i>	4.9 ppm
CAS: 78-92-2	<i>sec-Butyl Alcohol 99%</i>	220 ppm
CAS: 78-93-3	<i>Methyl Ethyl Ketone</i>	2700* ppm
CAS: 108-10-1	<i>Methyl Isobutyl Ketone (4-Methyl-2-pentanone)</i>	500 ppm
CAS: 110-82-7	<i>Cyclohexane</i>	1700* ppm
CAS: 540-84-1	<i>2,2,4-Trimethylpentane (Iso-Octane)</i>	830 ppm
CAS: 592-76-7	<i>1-Heptene</i>	1,400 ppm

· **PAC-3:**

CAS: 67-63-0	<i>Isopropanol</i>	12000** ppm
CAS: 71-23-8	<i>n-propanol</i>	4000* ppm
CAS: 75-65-0	<i>tert-Butyl Alcohol</i>	8000* ppm
CAS: 75-97-8	<i>3,3-Dimethyl-2-butanone</i>	30 ppm
CAS: 78-92-2	<i>sec-Butyl Alcohol 99%</i>	10000** ppm
CAS: 78-93-3	<i>Methyl Ethyl Ketone</i>	4000* ppm
CAS: 108-10-1	<i>Methyl Isobutyl Ketone (4-Methyl-2-pentanone)</i>	3000* ppm
CAS: 110-82-7	<i>Cyclohexane</i>	10000** ppm
CAS: 540-84-1	<i>2,2,4-Trimethylpentane (Iso-Octane)</i>	5000* ppm
CAS: 592-76-7	<i>1-Heptene</i>	8,700 ppm

7 Handling and storage

· **Handling:**· **Precautions for safe handling**

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

· **Information about protection against explosions and fires:**

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

(Contd. on page 5)

Safety Data Sheet

acc. to OSHA HCS

Printing date 12/30/2021

Reviewed on 12/30/2021

Trade name: Mixed Organic Standard
150 mg/kg Each Component

(Contd. of page 4)

- **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 receptacle tightly sealed.
 - Store in cool, dry conditions in well sealed receptacles.
- **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:**

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: 400 ppm
 Long-term value: 200 ppm
 BEI, A4

- **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.
 - Avoid contact with the eyes.
 - Avoid contact with the eyes and skin.
- **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

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

(Contd. on page 6)

Safety Data Sheet

acc. to OSHA HCS

Printing date 12/30/2021

Reviewed on 12/30/2021

Trade name: Mixed Organic Standard
150 mg/kg Each Component

(Contd. of page 5)

- **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:**



Tightly sealed goggles

- **Body protection:** Protective work clothing

9 Physical and chemical properties

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

- **General Information**

- **Appearance:**

Form:	Liquid
Color:	Clear
Odor:	Alcohol-like
Odor threshold:	Not determined.

- **pH-value:** Not determined.

- **Change in condition**

Melting point/Melting range:	-89.5 °C (-129.1 °F)
Boiling point/Boiling range:	82 °C (179.6 °F)

- **Flash point:** 13 °C (55.4 °F)

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

- **Ignition temperature:** 425 °C (797 °F)

- **Decomposition temperature:** Not determined.

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

- **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

- **Explosion limits:**

Lower:	2 Vol %
Upper:	12 Vol %

- **Vapor pressure at 20 °C (68 °F):** 43 hPa (32.3 mm Hg)

- **Density at 20 °C (68 °F):** 0.785 g/cm³ (6.55083 lbs/gal)

- **Relative density** Not determined.

- **Vapor density** Not determined.

- **Evaporation rate** Not determined.

- **Solubility in / Miscibility with**

Water: Fully miscible.

(Contd. on page 7)

Safety Data Sheet

acc. to OSHA HCS

Printing date 12/30/2021

Reviewed on 12/30/2021

Trade name: Mixed Organic Standard
150 mg/kg Each Component

(Contd. of page 6)

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

· **Viscosity:**

Dynamic at 20 °C (68 °F): 2.43 mPas

Kinematic: Not determined.

· **Solvent content:**

Organic solvents: 99.9 %

VOC content: 99.93 %

784.4 g/l / 6.55 lb/gal

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:** 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

· **Carcinogenic categories**

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

CAS: 67-63-0	Isopropanol	3
CAS: 108-10-1	Methyl Isobutyl Ketone (4-Methyl-2-pentanone)	2B

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

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

None of the ingredients is listed.

US

(Contd. on page 8)

Safety Data Sheet

acc. to OSHA HCS

Printing date 12/30/2021

Reviewed on 12/30/2021

Trade name: Mixed Organic Standard
150 mg/kg Each Component

(Contd. of page 7)


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 | UN1993 |
| · UN proper shipping name | |
| · DOT | Flammable liquids, n.o.s. (Isopropanol
) |
| · IMDG, IATA | FLAMMABLE LIQUID, N.O.S. (Isopropanol
) |
| · Transport hazard class(es) | |
| · DOT | |
|  | |
| · Class | 3 Flammable liquids |

(Contd. on page 9)

US

Safety Data Sheet


acc. to OSHA HCS

Printing date 12/30/2021

Reviewed on 12/30/2021

Trade name: Mixed Organic Standard
150 mg/kg Each Component

(Contd. of page 8)

· 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	B
· 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)	5L
· 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 1993 FLAMMABLE LIQUID, N.O.S. (ISOPROPANOL), 3, II

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):**

None of the ingredients is listed.

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

CAS: 67-63-0	Isopropanol
CAS: 75-65-0	tert-Butyl Alcohol
CAS: 78-92-2	sec-Butyl Alcohol 99%
CAS: 108-10-1	Methyl Isobutyl Ketone (4-Methyl-2-pentanone)
CAS: 110-82-7	Cyclohexane

(Contd. on page 10)

US

Safety Data Sheet

acc. to OSHA HCS

Printing date 12/30/2021

Reviewed on 12/30/2021

Trade name: Mixed Organic Standard
150 mg/kg Each Component

(Contd. of page 9)

· TSCA (Toxic Substances Control Act):	
Isopropanol	ACTIVE
n-propanol	ACTIVE
tert-Butyl Alcohol	ACTIVE
3,3-Dimethyl-2-butanone	ACTIVE
sec-Butyl Alcohol 99%	ACTIVE
Methyl Ethyl Ketone	ACTIVE
Methyl Isobutyl Ketone (4-Methyl-2-pentanone)	ACTIVE
4-methylpentan-2-ol	ACTIVE
Cyclohexane	ACTIVE
2,2,4-Trimethylpentane (Iso-Octane)	ACTIVE
1-Heptene	ACTIVE

· Hazardous Air Pollutants	
CAS: 108-10-1	Methyl Isobutyl Ketone (4-Methyl-2-pentanone)
CAS: 540-84-1	2,2,4-Trimethylpentane (Iso-Octane)

· Proposition 65	
· Chemicals known to cause cancer:	
CAS: 108-10-1	Methyl Isobutyl Ketone (4-Methyl-2-pentanone)

· 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:	
CAS: 108-10-1	Methyl Isobutyl Ketone (4-Methyl-2-pentanone)

· Carcinogenic categories		
· EPA (Environmental Protection Agency)		
CAS: 78-93-3	Methyl Ethyl Ketone	I
CAS: 108-10-1	Methyl Isobutyl Ketone (4-Methyl-2-pentanone)	I
CAS: 110-82-7	Cyclohexane	I
CAS: 540-84-1	2,2,4-Trimethylpentane (Iso-Octane)	II

· TLV (Threshold Limit Value)		
CAS: 67-63-0	Isopropanol	A4
CAS: 71-23-8	n-propanol	A4
CAS: 75-65-0	tert-Butyl Alcohol	A4

· 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).

(Contd. on page 11)

US

Safety Data Sheet

acc. to OSHA HCS

Printing date 12/30/2021

Reviewed on 12/30/2021

Trade name: Mixed Organic Standard
150 mg/kg Each Component

(Contd. of page 10)

· **Hazard pictograms**



GHS02 GHS07

· **Signal word** *Danger*

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

Isopropanol

· **Hazard statements**

Highly flammable liquid and vapor.

Causes serious eye irritation.

May cause drowsiness or dizziness.

· **Precautionary statements**

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Ground/bond container and receiving equipment.

Use explosion-proof electrical/ventilating/lighting/equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

Avoid breathing dust/fume/gas/mist/vapors/spray

Wash thoroughly after handling.

Use only outdoors or in a well-ventilated area.

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

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

Call a poison center/doctor if you feel unwell.

If eye irritation persists: Get medical advice/attention.

In case of fire: Use CO2, powder or water spray to extinguish.

Store in a well-ventilated place. Keep container tightly closed.

Store in a well-ventilated place. Keep cool.

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**

Revision 0.1, 12-30-21: changed concentrations to 150 mg/kg from 25 mg/kg. STN

Revision 0.0 12-30-2021: Creation date for SDS. STN

12/30/2021 / 1.0

· **Abbreviations and acronyms:**

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 12)

Safety Data Sheet
acc. to OSHA HCS

Printing date 12/30/2021

Reviewed on 12/30/2021

Trade name: Mixed Organic Standard
150 mg/kg Each Component

(Contd. of page 11)

*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**BEI: Biological Exposure Limit**Flam. Liq. 2: Flammable liquids – Category 2**Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A**STOT SE 3: Specific target organ toxicity (single exposure) – Category 3***· * Data compared to the previous version altered.**

US