Printing date 12/30/2021

Reviewed on 12/30/2021

1 Identification

- · Product identifier
- Trade name: <u>Mixed Organic Standard</u> 150 mg/kg Each Component
- · Article number: COR003
- 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



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



Eye Irrit. 2A H319 Causes serious eye irritation. STOT SE 3 H336 May cause drowsiness or dizziness.

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· Label elements

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



· Signal word Danger

- Hazard-determining components of labeling: Methyl Ethyl Ketone
- 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.

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(Contd. of page 1) 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/eve 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* = 2Fire = 3Reactivity = 0· HMIS-ratings (scale 0 - 4) HEALTH 2 Health = 2FIRE 3 Fire = 3**REACTIVITY O** 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: 78-93-3 Methyl Ethyl Ketone 99.835%

 • Table of Nonhazardous Ingredients

 CAS: 67-63-0
 Isopropanol
 0.015%

 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%

 (Contd. on page 3)
 0.015%

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		(Contd. of page 2)
CAS: 108-10-1	Methyl Isobutyl Ketone (4-Methyl-2-pentanone)	0.015%
	4-methylpentan-2-ol	0.015%
CAS: 110-82-7	Cyclohexane	0.015%
	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.
- · For safety reasons unsuitable extinguishing agents: Water with full jet
- 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: 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, sawd	lust).
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

CAS: 78-93-3 Methyl Ethyl Ketone

• PAC-1:

200 ppm

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		(Contd. of page 3)
	Isopropanol	400 ppm
	n-propanol	250 ppm
	tert-Butyl Alcohol	150 ppm
CAS: 75-97-8	3,3-Dimethyl-2-butanone	0.45 ppm
CAS: 78-92-2	sec-Butyl Alcohol 99%	150 ppm
CAS: 108-10-1	Methyl Isobutyl Ketone (4-Methyl-2-pentanone)	75 ppm
CAS: 110-82-7	Cyclohexane	300 ppm
CAS: 540-84-1	2,2,4-Trimethylpentane (Iso-Octane)	230 ppm
CAS: 592-76-7	1-Heptene	130 ppm
· PAC-2:		
CAS: 78-93-3	Methyl Ethyl Ketone	2700* ppm
CAS: 67-63-0	Isopropanol	2000* ppm
CAS: 71-23-8	n-propanol	670 ppm
CAS: 75-65-0	tert-Butyl Alcohol	1,300 ppm
CAS: 75-97-8	3,3-Dimethyl-2-butanone	4.9 ppm
CAS: 78-92-2	sec-Butyl Alcohol 99%	220 ppm
CAS: 108-10-1	Methyl Isobutyl Ketone (4-Methyl-2-pentanone)	500 ppm
CAS: 110-82-7	Cyclohexane	1700* ppm
CAS: 540-84-1	2,2,4-Trimethylpentane (Iso-Octane)	830 ppm
CAS: 592-76-7	1-Heptene	1,400 ppm
· PAC-3:		
CAS: 78-93-3	Methyl Ethyl Ketone	4000* ppm
CAS: 67-63-0	Isopropanol	12000** ppm
CAS: 71-23-8	n-propanol	4000* ppm
CAS: 75-65-0	tert-Butyl Alcohol	8000* ppm
CAS: 75-97-8	3,3-Dimethyl-2-butanone	30 ppm
CAS: 78-92-2	sec-Butyl Alcohol 99%	10000** ppm
CAS: 108-10-1	Methyl Isobutyl Ketone (4-Methyl-2-pentanone)	3000* ppm
CAS: 110-82-7		10000** ppm
CAS: 540-84-1	2,2,4-Trimethylpentane (Iso-Octane)	5000* ppm
CAS: 592-76-7	1-Heptene	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.

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- · 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: 78-93-3 Methyl Ethyl Ketone

- PEL Long-term value: 590 mg/m³, 200 ppm REL Short-term value: 885 mg/m³, 300 ppm
 - Long-term value: 590 mg/m³, 200 ppm
- TLV Short-term value: 300 ppm Long-term value: 200 ppm BEI

· Ingredients with biological limit values:

CAS: 78-93-3 Methyl Ethyl Ketone

BEI 2 mg/L

LD50 Intraperitoneal: urine Time: end of shift LD50: Methyl ethyl ketone (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.

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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 \cdot *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

Physical and chemical proper	ties
Information on basic physical and c	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:	-86.3 °C (-123.3 °F)
Boiling point/Boiling range:	79-80.5 °C (174.2-176.9 °F)
Flash point:	-4 °C (24.8 °F)
Flammability (solid, gaseous):	Not applicable.
Ignition temperature:	514 °C (957.2 °F)
Decomposition temperature:	Not determined.
Auto igniting:	Product is not selfigniting.
Danger of explosion:	Product is not explosive. However, formation of explosive air/vapo mixtures are possible.
Explosion limits:	
Lower:	1.8 Vol %
Upper:	11.5 Vol %
Vapor pressure at 20 °C (68 °F):	105 hPa (78.8 mm Hg)
<i>Density at 20 °C (68 °F):</i>	0.80599 g/cm ³ (6.72599 lbs/gal)
Relative density	Not determined.
Vapor density	Not determined.
Evaporation rate	Not determined.

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		(Contd. of page
• Solubility in / Miscibility with Water at 20 °C (68 °F):	290 g/l	
· Partition coefficient (n-octanol/wa	ater): Not determined.	
· Viscosity:		
<i>Dynamic at 20 •C (68 •F):</i>	0.4 mPas	
Kinematic:	Not determined.	
· Solvent content:		
Organic solvents:	99.9 %	
VOC content:	99.93 %	
	805.4 g/l / 6.72 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.
- \cdot 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

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

· NTP (National Toxicology Program)

None of the ingredients is listed.

· OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

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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.

UN-Number DOT, IMDG, IATA	UN1993
UN proper shipping name DOT	Flammable liquids, n.o.s. (Methyl Ethyl Ketone
IMDG, IATA) FLAMMABLE LIQUID, N.O.S. (Methyl Ethyl Ketone
)
Transport hazard class(es)	
DOT	
R.MMARE LOUD	
Class	3 Flammable liquids

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	(Contd. of page
Label	3
IMDG, IATA	
3	
· Class	3 Flammable liquids
· Label	3
· Packing group	
· DOT, IMDG, IATA	11
· Environmental hazards:	Not applicable.
· Special precautions for user	Warning: Flammable liquids
· Hazard identification number (Kemler code).	
EMS Number:	F-E,S-D
· Stowage Category	В
• 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	
\cdot Limited quantities (LQ)	5L
\cdot 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. (METHYL ETHY
	KETONE
), <i>3</i> , <i>11</i>
	<i>,, ,,</i>

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

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TSCA (Toxic Substances Control Act):	(Contd. of pag
Methyl Ethyl Ketone	ACTIV
Isopropanol	ACTIV
n-propanol	ACTIV
tert-Butyl Alcohol	ACTIV
3,3-Dimethyl-2-butanone	ACTIV
sec-Butyl Alcohol 99%	ACTIV
Methyl Isobutyl Ketone (4-Methyl-2-pentanone)	ACTIV
4-methylpentan-2-ol	ACTIV
Cyclohexane	ACTIV
2,2,4-Trimethylpentane (Iso-Octane)	ACTIV
1-Heptene	ACTIV
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	
CAS: 108-10-1 Methyl Isobutyl Ketone (4-Methyl-2-pentanone)	
CAS: 110-82-7 Cyclohexane	
CAS: 540-84-1 2,2,4-Trimethylpentane (Iso-Octane)	
TLV (Threshold Limit Value)	
CAS: 67-63-0 Isopropanol	1
CAS: 71-23-8 n-propanol	1
CAS: 75-65-0 tert-Butyl Alcohol	1
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 Global	

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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. added isopropanol as an ingredient. 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

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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)	
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	
$\cdot *$ Data compared to the previous version altered.	
	US