Safety Data Sheet
acc. to OSHA HCS

Revision date: 05/29/2025

1 Identification

· **Product identifier**

· **Product Name: Custom Organic Standard (1 x 1 mL)**

· **Part no. :** CUS-00000448
· **Application of the substance / the mixture** Reagents and Standards for Analytical Chemical Laboratory Use

· **Details of the supplier of the safety data sheet**
· **Manufacturer/Supplier:**
Agilent Technologies, Inc.
5301 Stevens Creek Blvd.
Santa Clara, CA 95051 USA

· **Information department:**
Telephone: 800-227-9770
e-mail: pdl-msds_author@agilent.com
· **Emergency telephone number:** CHEMTREC®: 1-800-424-9300

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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.
Toxic to Reproduction 1B	H360 May damage fertility or the unborn child.
Specific Target Organ Toxicity - Repeated Exposure 2	H373 May cause damage to organs through prolonged or repeated exposure.
Aspiration Hazard 1	H304 May be fatal if swallowed and enters airways.


GHS05 Corrosion

Eye Damage 1	H318 Causes serious eye damage.


GHS07

Skin Irritation 2	H315 Causes skin irritation.
Sensitization - Skin 1	H317 May cause an allergic skin reaction.
Specific Target Organ Toxicity - Single Exposure 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).

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· **Hazard pictograms**

GHS02 GHS05 GHS07 GHS08

· **Signal word** Danger

· **Hazard-determining components of labeling:**
butan-1-ol
2-methoxypropanol
n-butyl acrylate
ethanol
isobutyl acrylate
isobutyl methacrylate

· **Hazard statements**
H225 Highly flammable liquid and vapor.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H317 May cause an allergic skin reaction.
H350 May cause cancer.
H360 May damage fertility or the unborn child.
H336 May cause drowsiness or dizziness.
H373 May cause damage to organs through prolonged or repeated exposure.
H304 May be fatal if swallowed and enters airways.

· **Precautionary statements**

P210	Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P260	Do not breathe vapours.
P241	Use explosion-proof electrical/ventilating/lighting/equipment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P240	Ground/bond container and receiving equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P264	Wash thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing must not be allowed out of the workplace.
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P301+P310	If swallowed: Immediately call a poison center/doctor.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P321	Specific treatment (see on this label).
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312	Call a poison center/doctor if you feel unwell.
P363	Wash contaminated clothing before reuse.
P303+P361+P353	If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P314	Get medical advice/attention if you feel unwell.
P331	Do NOT induce vomiting.
P370+P378	In case of fire: Use CO2, powder or water spray to extinguish.
P305+P351+P338	If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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P362+P364	Take off contaminated clothing and wash it before reuse.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P403+P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

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

Health = 3
Fire = 3
Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**

Health = *3
Fire = 3
Reactivity = 0

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

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3 Composition/information on ingredients

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

· **Dangerous components:**		
141-78-6	ethyl acetate	10.0%
123-54-6	pentane-2,4-dione	5.0%
34590-94-8	Dipropylene glycol monomethyl ether	5.0%
64-17-5	ethanol	2.5%
67-56-1	methanol	2.5%
67-63-0	propan-2-ol	2.5%
67-64-1	acetone	2.5%
71-23-8	propan-1-ol	2.5%
71-36-3	butan-1-ol	2.5%
78-83-1	butanol	2.5%
78-93-3	butanone	2.5%
79-20-9	methyl acetate	2.5%
95-47-6	o-xylene	2.5%
97-86-9	isobutyl methacrylate	2.5%
106-42-3	p-xylene	2.5%
106-63-8	isobutyl acrylate	2.5%
107-98-2	1-methoxy-2-propanol	2.5%
108-10-1	4-methylpentan-2-one	2.5%

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108-21-4	isopropyl acetate	2.5%
108-38-3	m-xylene	2.5%
108-65-6	2-methoxy-1-methylethyl acetate	2.5%
108-88-3	toluene	2.5%
109-60-4	propyl acetate	2.5%
109-99-9	tetrahydrofuran	2.5%
110-19-0	isobutyl acetate	2.5%
110-54-3	n-hexane	2.5%
110-82-7	cyclohexane	2.5%
111-65-9	octane	2.5%
111-76-2	2-butoxyethanol	2.5%
123-86-4	n-butyl acetate	2.5%
141-32-2	n-butyl acrylate	2.5%
142-82-5	heptane	2.5%
1569-02-4	1-ethoxypropan-2-ol	2.5%
1589-47-5	2-methoxypropanol	2.5%
54839-24-6	2-ethoxy-1-methylethyl acetate	2.5%

4 First-aid measures

· **Description of first aid measures**
· **General information:**
Immediately remove any clothing soiled by the product.
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
· **After inhalation:**
Supply fresh air and to be sure call for a doctor.
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. Then 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**
During heating or in case of fire poisonous gases are produced.

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· **Advice for firefighters**
· **Protective equipment:** Mouth respiratory protective device.

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6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures**
Mount respiratory protective device.
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, sawdust).
Use neutralizing agent.
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**

· **PAC-1:**		
141-78-6	ethyl acetate	1,200 ppm
123-54-6	pentane-2,4-dione	75 ppm
34590-94-8	Dipropylene glycol monomethyl ether	150 ppm
64-17-5	ethanol	1,800 ppm
67-56-1	methanol	530 ppm
67-63-0	propan-2-ol	400 ppm
67-64-1	acetone	200 ppm
71-23-8	propan-1-ol	250 ppm
71-36-3	butan-1-ol	60 ppm
78-83-1	butanol	150 ppm
78-93-3	butanone	200 ppm
79-20-9	methyl acetate	250 ppm
107-98-2	1-methoxy-2-propanol	100 ppm
108-10-1	4-methylpentan-2-one	75 ppm
108-21-4	isopropyl acetate	200 ppm
108-38-3	m-xylene	130 ppm
108-65-6	2-methoxy-1-methylethyl acetate	50 ppm
108-88-3	toluene	67 ppm
109-60-4	propyl acetate	250 ppm
109-99-9	tetrahydrofuran	100 ppm
110-19-0	isobutyl acetate	450 ppm
110-54-3	n-hexane	260 ppm
110-82-7	cyclohexane	300 ppm
111-65-9	octane	230 ppm

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111-76-2	2-butoxyethanol	60 ppm
123-86-4	n-butyl acetate	5 ppm
141-32-2	n-butyl acrylate	8.3 ppm
142-82-5	heptane	500 ppm

· **PAC-2:**

141-78-6	ethyl acetate	1,700 ppm
123-54-6	pentane-2,4-dione	110 ppm
34590-94-8	Dipropylene glycol monomethyl ether	1700* ppm
64-17-5	ethanol	3300* ppm
67-56-1	methanol	2,100 ppm
67-63-0	propan-2-ol	2000* ppm
67-64-1	acetone	3200* ppm
71-23-8	propan-1-ol	670 ppm
71-36-3	butan-1-ol	800 ppm
78-83-1	butanol	1,300 ppm
78-93-3	butanone	2700* ppm
79-20-9	methyl acetate	1,700 ppm
107-98-2	1-methoxy-2-propanol	160 ppm
108-10-1	4-methylpentan-2-one	500 ppm
108-21-4	isopropyl acetate	2700* ppm
108-38-3	m-xylene	920 ppm
108-65-6	2-methoxy-1-methylethyl acetate	1,000 ppm
108-88-3	toluene	560 ppm
109-60-4	propyl acetate	1,300 ppm
109-99-9	tetrahydrofuran	500 ppm
110-19-0	isobutyl acetate	1300* ppm
110-54-3	n-hexane	2900* ppm
110-82-7	cyclohexane	1700* ppm
111-65-9	octane	385 ppm
111-76-2	2-butoxyethanol	120 ppm
123-86-4	n-butyl acetate	200 ppm
141-32-2	n-butyl acrylate	130 ppm
142-82-5	heptane	830 ppm

· **PAC-3:**

141-78-6	ethyl acetate	10000** ppm
123-54-6	pentane-2,4-dione	200 ppm
34590-94-8	Dipropylene glycol monomethyl ether	9900** ppm
64-17-5	ethanol	15000* ppm
67-56-1	methanol	7200* ppm
67-63-0	propan-2-ol	12000** ppm
67-64-1	acetone	5700* ppm

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71-23-8	propan-1-ol	4000* ppm
71-36-3	butan-1-ol	8000** ppm
78-83-1	butanol	8000* ppm
78-93-3	butanone	4000* ppm
79-20-9	methyl acetate	10000* ppm
107-98-2	1-methoxy-2-propanol	660 ppm
108-10-1	4-methylpentan-2-one	3000* ppm
108-21-4	isopropyl acetate	16000** ppm
108-38-3	m-xylene	2500* ppm
108-65-6	2-methoxy-1-methylethyl acetate	5000* ppm
108-88-3	toluene	3700* ppm
109-60-4	propyl acetate	8000* ppm
109-99-9	tetrahydrofuran	5000* ppm
110-19-0	isobutyl acetate	7500** ppm
110-54-3	n-hexane	8600** ppm
110-82-7	cyclohexane	10000** ppm
111-65-9	octane	5000** ppm
111-76-2	2-butoxyethanol	700 ppm
123-86-4	n-butyl acetate	3000* ppm
141-32-2	n-butyl acrylate	480 ppm
142-82-5	heptane	5000* ppm

7 Handling and storage

· **Handling:**
· **Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Open and handle receptacle with care.
Prevent formation of aerosols.
· **Information about protection against explosions and fires:**
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
Keep respiratory protective device available.

· **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.

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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 following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.
At this time, the other constituents have no known exposure limits.

141-78-6 ethyl acetate	
PEL	Long-term value: 1400 mg/m³, 400 ppm
REL	Long-term value: 1400 mg/m³, 400 ppm
TLV	Long-term value: 400 ppm
123-54-6 pentane-2,4-dione	
TLV	Long-term value: 25 ppm Skin
34590-94-8 Dipropylene glycol monomethyl ether	
PEL	Long-term value: 600 mg/m³, 100 ppm Skin
REL	Short-term value: 900 mg/m³, 150 ppm Long-term value: 600 mg/m³, 100 ppm Skin
TLV	Long-term value: 50 ppm
64-17-5 ethanol	
PEL	Long-term value: 1900 mg/m³, 1000 ppm
REL	Long-term value: 1900 mg/m³, 1000 ppm
TLV	Short-term value: 1000 ppm A3
67-56-1 methanol	
PEL	Long-term value: 260 mg/m³, 200 ppm
REL	Short-term value: 325 mg/m³, 250 ppm Long-term value: 260 mg/m³, 200 ppm Skin
TLV	Short-term value: 250 ppm Long-term value: 200 ppm Skin; BEIc
67-63-0 propan-2-ol	
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
67-64-1 acetone	
PEL	Long-term value: 2400 mg/m³, 1000 ppm

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REL	Long-term value: 590 mg/m³, 250 ppm
TLV	Short-term value: 500 ppm Long-term value: 250 ppm A4, BEI
71-23-8 propan-1-ol	
PEL	Long-term value: 500 mg/m³, 200 ppm
REL	Short-term value: 625 mg/m³, 250 ppm Long-term value: 500 mg/m³, 200 ppm Skin
TLV	Long-term value: 100 ppm A4
71-36-3 butan-1-ol	
PEL	Long-term value: 300 mg/m³, 100 ppm
REL	Ceiling limit value: 150 mg/m³, 50 ppm Skin
TLV	Long-term value: 20 ppm
78-83-1 butanol	
PEL	Long-term value: 300 mg/m³, 100 ppm
REL	Long-term value: 150 mg/m³, 50 ppm
TLV	Long-term value: 50 ppm
78-93-3 butanone	
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: 150 ppm Long-term value: 75 ppm BEI, Skin
79-20-9 methyl acetate	
PEL	Long-term value: 610 mg/m³, 200 ppm
REL	Short-term value: 760 mg/m³, 250 ppm Long-term value: 610 mg/m³, 200 ppm
TLV	Short-term value: 250 ppm Long-term value: 200 ppm
95-47-6 o-xylene	
PEL	Long-term value: 435 mg/m³, 100 ppm
REL	Short-term value: 655 mg/m³, 150 ppm Long-term value: 435 mg/m³, 100 ppm
TLV	Long-term value: 20 ppm BEI, A4
106-42-3 p-xylene	
PEL	Long-term value: 435 mg/m³, 100 ppm
REL	Short-term value: 655 mg/m³, 150 ppm Long-term value: 435 mg/m³, 100 ppm

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TLV	Long-term value: 20 ppm BEI, OTO, A4
107-98-2 1-methoxy-2-propanol	
REL	Short-term value: 540 mg/m³, 150 ppm Long-term value: 360 mg/m³, 100 ppm
TLV	Short-term value: 100 ppm Long-term value: 50 ppm A4
108-10-1 4-methylpentan-2-one	
PEL	Long-term value: 410 mg/m³, 100 ppm
REL	Short-term value: 300 mg/m³, 75 ppm Long-term value: 205 mg/m³, 50 ppm
TLV	Short-term value: 75 ppm Long-term value: 20 ppm BEI, A3
108-21-4 isopropyl acetate	
PEL	Long-term value: 950 mg/m³, 250 ppm
TLV	Short-term value: 150 ppm Long-term value: 100 ppm
108-38-3 m-xylene	
PEL	Long-term value: 435 mg/m³, 100 ppm
REL	Short-term value: 655 mg/m³, 150 ppm Long-term value: 435 mg/m³, 100 ppm
TLV	Long-term value: 20 ppm BEI, A4
108-65-6 2-methoxy-1-methylethyl acetate	
WEEL	Long-term value: 50 ppm
108-88-3 toluene	
PEL	Long-term value: 200 ppm Ceiling limit value: 300; 500* ppm *10-min peak per 8-hr shift
REL	Short-term value: 560 mg/m³, 150 ppm Long-term value: 375 mg/m³, 100 ppm
TLV	Long-term value: 20 ppm BEI, OTO, A4
109-60-4 propyl acetate	
PEL	Long-term value: 840 mg/m³, 200 ppm
REL	Short-term value: 1050 mg/m³, 250 ppm Long-term value: 840 mg/m³, 200 ppm
TLV	Short-term value: 150 ppm Long-term value: 100 ppm
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109-99-9 tetrahydrofuran	
PEL	Long-term value: 590 mg/m³, 200 ppm
REL	Short-term value: 735 mg/m³, 250 ppm Long-term value: 590 mg/m³, 200 ppm
TLV	Short-term value: 100 ppm Long-term value: 50 ppm Skin, A3, BEI
110-19-0 isobutyl acetate	
PEL	Long-term value: 700 mg/m³, 150 ppm
REL	Long-term value: 700 mg/m³, 150 ppm
TLV	Short-term value: 150 ppm Long-term value: 50 ppm
110-54-3 n-hexane	
PEL	Long-term value: 1800 mg/m³, 500 ppm
REL	Long-term value: 180 mg/m³, 50 ppm
TLV	Long-term value: 50 ppm Skin; BEI
110-82-7 cyclohexane	
PEL	Long-term value: 1050 mg/m³, 300 ppm
REL	Long-term value: 1050 mg/m³, 300 ppm
TLV	Long-term value: 100 ppm BEI
111-65-9 octane	
PEL	Long-term value: 2350 mg/m³, 500 ppm n-Octane only
REL	Long-term value: 350 mg/m³, 75 ppm Ceiling limit value: 1800* mg/m³, 385* ppm *15 min
TLV	Long-term value: 300 ppm
111-76-2 2-butoxyethanol	
PEL	Long-term value: 240 mg/m³, 50 ppm Skin
REL	Long-term value: 24 mg/m³, 5 ppm Skin
TLV	Long-term value: 20 ppm BEI, A3
123-86-4 n-butyl acetate	
PEL	Long-term value: 710 mg/m³, 150 ppm
REL	Short-term value: 950 mg/m³, 200 ppm Long-term value: 710 mg/m³, 150 ppm
TLV	Short-term value: 150 ppm Long-term value: 50 ppm

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141-32-2 n-butyl acrylate	
REL	Long-term value: 55 mg/m³, 10 ppm
TLV	Long-term value: 2 ppm DSEN, A4

142-82-5 heptane	
PEL	Long-term value: 2000 mg/m³, 500 ppm
REL	Long-term value: 350 mg/m³, 85 ppm Ceiling limit value: 1800* mg/m³, 440* ppm *15-min
TLV	Short-term value: 500 ppm Long-term value: 400 ppm

· **Ingredients with biological limit values:**

67-56-1 methanol	
BEI	15 mg/L Medium: urine Time: end of shift Parameter: Methanol (background, nonspecific)

67-63-0 propan-2-ol	
BEI	40 mg/L Medium: urine Time: end of shift at end of workweek Parameter: Acetone (background, nonspecific)

67-64-1 acetone	
BEI	25 mg/L Medium: urine Time: end of shift Parameter: Acetone (nonspecific)

78-93-3 butanone	
BEI	2 mg/L Medium: urine Time: end of shift Parameter: Methyl ethyl ketone (nonspecific)

95-47-6 o-xylene	
BEI	1.5 g/g creatinine Medium: urine Time: end of shift Parameter: Methylhippuric acids

106-42-3 p-xylene	
BEI	1.5 g/g creatinine Medium: urine Time: end of shift Parameter: Methylhippuric acids

108-10-1 4-methylpentan-2-one	
BEI	1 mg/L Medium: urine Time: end of shift Parameter: MIBK

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108-38-3 m-xylene	
BEI	1.5 g/g creatinine Medium: urine Time: end of shift Parameter: Methylhippuric acids
108-88-3 toluene	
BEI	0.02 mg/L Medium: blood Time: prior to last shift of workweek Parameter: Toluene 0.03 mg/L Medium: urine Time: end of shift Parameter: Toluene 0.3 mg/g creatinine Medium: urine Time: end of shift Parameter: o-Cresol with hydrolysis (background)
109-99-9 tetrahydrofuran	
BEI	2 mg/L Medium: urine Time: end of shift Parameter: Tetrahydrofuran
110-54-3 n-hexane	
BEI	0.5 mg/L Medium: urine Time: end of shift Parameter: 2.5-Hexanedione without hydrolysis
110-82-7 cyclohexane	
BEI	NIC-50 mg/g creatinine Medium: - Time: end of shift at end of workweek Parameter: NIC-1.2-Cyclohexanediol (nonspecific)
111-76-2 2-butoxyethanol	
BEI	200 mg/g creatinine Medium: urine Time: end of shift Parameter: Butoxyacetic acid (BAA) (with hydrolysis)

· **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.

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Do not inhale gases / fumes / aerosols.
Avoid contact with the skin.
Avoid contact with the eyes and skin.

· **Breathing equipment:**
When used as intended with Agilent instruments, the use of the product under normal laboratory conditions and with standard practices does not result in significant airborne exposures and therefore respiratory protection is not needed.
Under an emergency condition where a respirator is deemed necessary, use a NIOSH or equivalent approved device/equipment with appropriate organic or acid gas cartridge.

· **Protection of hands:**
Although not recommended for constant contact with the chemicals or for clean-up, nitrile gloves 11-13 mil thickness are recommended for normal use. The breakthrough time is 1 hr. For cleaning a spill where there is direct contact of the chemical, butyl rubber gloves are recommended 12-15 mil thickness with breakthrough times exceeding 4 hrs. Supplier recommendations should be followed.

· **Material of gloves**
For normal use: nitrile rubber, 11-13 mil thickness
For direct contact with the chemical: butyl rubber, 12-15 mil thickness

· **Penetration time of glove material**
For normal use: nitrile rubber: 1 hour
For direct contact with the chemical: butyl rubber: >4 hours

· **Eye protection:**

Tightly sealed goggles

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9 Physical and chemical properties

· **Information on basic physical and chemical properties**	
· **General Information**	
· **Appearance:**	
Form:	Liquid
Color:	According to product specification
· **Odor:**	Characteristic
· **Odor threshold:**	Not determined.
· **pH-value:**	Not determined.
· **Change in condition**	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	77-78 °C (170.6-172.4 °F)
· **Flash point:**	-4 °C (24.8 °F)
· **Flammability (solid, gaseous):**	Highly flammable.
· **Auto igniting:**	270 °C (518 °F)
· **Decomposition temperature:**	Not determined.
· **Ignition temperature:**	Product is not selfigniting.

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Product Name: Custom Organic Standard (1 x 1 mL)

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· **Danger of explosion:**	Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
· **Explosion limits:**	
Lower:	2.1 Vol %
Upper:	11.5 Vol %
· **Vapor pressure at 20 °C (68 °F):**	75 hPa (56.3 mm Hg)
· **Vapor pressure at 50 °C (122 °F):**	360 hPa (270 mm Hg)
· **Density at 20 °C (68 °F):**	0.86501 g/cm³ (7.21851 lbs/gal)
· **Relative density**	Not determined.
· **Vapor density**	Not determined.
· **Evaporation rate**	Not determined.
· **Solubility in / Miscibility with**	
Water:	Not miscible or difficult to mix.
· **Partition coefficient (n-octanol/water):**	Not determined.
· **Viscosity:**	
Dynamic:	Not determined.
Kinematic:	Not determined.
· **Solvent content:**	
Organic solvents:	85.0 %
VOC content:	80.00 % 692.0 g/l / 5.78 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.

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11 Toxicological information

· **Information on toxicological effects**
· **Acute toxicity:**

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

ATE (Acute Toxicity Estimate)		
Oral	LD50	5,768 mg/kg
Dermal	LD50	4,399 mg/kg
Inhalative	LC50/4 h	>22.6 mg/L

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141-78-6 ethyl acetate		
Oral	LD50	5,620 mg/kg (rabbit)
Inhalative	LC50/4 h	1,600 mg/L (rat)
123-54-6 pentane-2,4-dione		
Oral	LD50	760 mg/kg (rat)
Dermal	LD50	790 mg/kg (rabbit)
Inhalative	LC50/4 h	5.1 mg/L (rat)
34590-94-8 Dipropylene glycol monomethyl ether		
Oral	LD50	5,152 mg/kg (rat)
Dermal	LD50	>19,000 mg/kg (rab)
64-17-5 ethanol		
Oral	LD50	>5,000 mg/kg (rat)
Inhalative	LC50/4 h	20,000 mg/L (rat)
67-56-1 methanol		
Oral	LD50	5,628 mg/kg (rat)
Dermal	LD50	15,800 mg/kg (rabbit)
67-63-0 propan-2-ol		
Oral	LD50	4,710 mg/kg (rat)
Dermal	LD50	12,800 mg/kg (rat)
		12,800 mg/kg (rabbit)
Inhalative	LC50/4 h	72.6 mg/L (rat)
67-64-1 acetone		
Oral	LD50	5,800 mg/kg (rat)
Dermal	LD50	20,000 mg/kg (rabbit)
71-23-8 propan-1-ol		
Oral	LD50	1,870 mg/kg (rat)
Dermal	LD50	4,055 mg/kg (rat)
		5,040 mg/kg (rabbit)
Inhalative	LC50/4 h	33.8 mg/L (rat)
71-36-3 butan-1-ol		
Oral	LD50	790 mg/kg (rat)
Dermal	LD50	3,400 mg/kg (rabbit)
Inhalative	LC50/4 h	8,000 mg/L (rat)
78-83-1 butanol		
Oral	LD50	2,460 mg/kg (rat)
Dermal	LD50	2,460 mg/kg (rabbit)
Inhalative	LC50/4 h	19.2 mg/L (rat)
78-93-3 butanone		
Oral	LD50	2,737 mg/kg (rat)
Dermal	LD50	6,480 mg/kg (rabbit)

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79-20-9 methyl acetate		
Oral	LD50	3,705 mg/kg (rabbit)
95-47-6 o-xylene		
Oral	LD50	5,000 mg/kg (rat)
Inhalative	LC50/4 h	18,800 mg/L (rat)
97-86-9 isobutyl methacrylate		
Oral	LD50	11,990 mg/kg (mouse)
		9,590 mg/kg (rat)
106-42-3 p-xylene		
Oral	LD50	5,000 mg/kg (rat)
Inhalative	LC50/4 h	4,550 mg/L (rat)
106-63-8 isobutyl acrylate		
Oral	LD50	4,895 mg/kg (rat)
Inhalative	LC50/4 h	2,828 mg/L (rat)
107-98-2 1-methoxy-2-propanol		
Oral	LD50	5,300 mg/kg (rat)
Dermal	LD50	13,000 mg/kg (rabbit)
Inhalative	LC50/4 h	54.6 mg/L (rat)
108-10-1 4-methylpentan-2-one		
Oral	LD50	2,080 mg/kg (rat)
Dermal	LD50	16,000 mg/kg (rab)
		>16,000 mg/kg (rabbit)
Inhalative	LC50/4 h	11 mg/L (ATE)
		>8.2 mg/L (rat)
108-21-4 isopropyl acetate		
Oral	LD50	6,750 mg/kg (rat)
Inhalative	LC50/4 h	50,600 mg/L (rat)
108-38-3 m-xylene		
Oral	LD50	6,602 mg/kg (rat)
Dermal	LD50	12,126 mg/kg (rabbit)
Inhalative	LC50/4 h	6,700 mg/L (rat)
108-65-6 2-methoxy-1-methylethyl acetate		
Oral	LD50	8,530 mg/kg (rat)
Dermal	LD50	>5,000 mg/kg (rat)
Inhalative	LC50/4 h	35.7 mg/L (rat)
108-88-3 toluene		
Oral	LD50	5,580 mg/kg (rat)
Dermal	LD50	12,124 mg/kg (rabbit)
Inhalative	LC50/4 h	5,320 mg/L (mouse)
		28.1 mg/L (rat)

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109-60-4 propyl acetate		
Oral	LD50	9,370 mg/kg (rat)
Dermal	LD50	>17,740 mg/kg (rabbit)
Inhalative	LC50/4 h	32 mg/L (rat)
109-99-9 tetrahydrofuran		
Oral	LD50	2,500 mg/kg (rat)
110-19-0 isobutyl acetate		
Oral	LD50	13,400 mg/kg (rat)
110-54-3 n-hexane		
Oral	LD50	5,000 mg/kg (rat)
Dermal	LD50	3,000 mg/kg (rabbit)
110-82-7 cyclohexane		
Oral	LD50	>5,000 mg/kg (rat)
Dermal	LD50	>2,000 mg/kg (rabbit)
Inhalative	LC50/4 h	13.9 mg/L (rat)
111-76-2 2-butoxyethanol		
Oral	LD50	1,200 mg/kg (ATE)
		615 mg/kg (rat)
Dermal	LD50	400 mg/kg (rab)
		405 mg/kg (rabbit)
Inhalative	LC50/4 h	3 mg/L (ATE)
		2.2 mg/L (rat)
123-86-4 n-butyl acetate		
Oral	LD50	>6,400 mg/kg (rat)
Dermal	LD50	>5,000 mg/kg (rabbit)
Inhalative	LC50/4 h	21.1 mg/L (rat)
141-32-2 n-butyl acrylate		
Oral	LD50	900 mg/kg (rat)
Dermal	LD50	750 mg/kg (rabbit)
Inhalative	LC50/4 h	10.3 mg/L (rat)
142-82-5 heptane		
Inhalative	LC50/4 h	103,000 mg/L (rat)
1569-02-4 1-ethoxypropan-2-ol		
Oral	LD50	1,792 mg/kg (rat)
Dermal	LD50	9,500 mg/kg (rab)
		>2,000 mg/kg (rat)
Inhalative	LC50/4 h	>9.59 mg/L (rat)
54839-24-6 2-ethoxy-1-methylethyl acetate		
Inhalative	LC50/4 h	6.99 mg/L (rat)

· **Primary irritant effect:**
· **on the skin:** Irritant to skin and mucous membranes.
· **on the eye:** Strong irritant with the danger of severe eye injury.

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· **Sensitization:** Sensitization possible through skin contact.
· **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)**		
64-17-5	ethanol	1
67-63-0	propan-2-ol	3
95-47-6	o-xylene	3
106-42-3	p-xylene	3
108-10-1	4-methylpentan-2-one	2B
108-38-3	m-xylene	3
108-88-3	toluene	3
109-99-9	tetrahydrofuran	2B
111-76-2	2-butoxyethanol	3
141-32-2	n-butyl acrylate	3

· **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 2 (Self-assessment): hazardous for water
Do not allow product to reach ground water, water course or sewage system.
Must not reach bodies of water or drainage ditch undiluted or unneutralized.
Danger to drinking water if even small quantities leak into the ground.
· **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.

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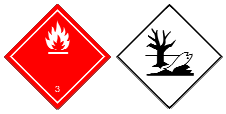
· **Uncleaned packagings:**
· **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

· **Not Regulated, De minimis Quantities**	-
· **UN-Number**	
· **DOT, IMDG, IATA**	UN1993
· **UN proper shipping name**	
· **DOT**	Flammable liquids, n.o.s. (Ethyl acetate, Hexanes)
· **IMDG**	FLAMMABLE LIQUID, N.O.S. (ETHYL ACETATE, HEXANES), MARINE POLLUTANT
· **IATA**	FLAMMABLE LIQUID, N.O.S. (ETHYL ACETATE, HEXANES)
· **Transport hazard class(es)**	
· **DOT**	
· **Class**	3 Flammable liquids
· **Label**	3
· **IMDG**	
· **Class**	3 Flammable liquids
· **Label**	3
· **IATA**	
· **Class**	3 Flammable liquids
· **Label**	3
· **Packing group**	
· **DOT, IMDG, IATA**	II
· **Environmental hazards:**	Product contains environmentally hazardous substances: isobutyl methacrylate
· **Marine pollutant:**	Symbol (fish and tree)
· **Special precautions for user**	Warning: Flammable liquids
· **Hazard identification number (Kemler code):**	33
· **EMS Number:**	F-E,S-E

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· **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)**	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 1993 FLAMMABLE LIQUID, N.O.S. (ETHYL ACETATE, HEXANES), 3, II, ENVIRONMENTALLY HAZARDOUS

*
15 Regulatory information

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

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

None of the ingredients is listed.

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

67-56-1	methanol
67-63-0	propan-2-ol
71-36-3	butan-1-ol
95-47-6	o-xylene
106-42-3	p-xylene
108-10-1	4-methylpentan-2-one
108-38-3	m-xylene
108-88-3	toluene
110-54-3	n-hexane
110-82-7	cyclohexane
111-76-2	2-butoxyethanol
141-32-2	n-butyl acrylate

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

141-78-6	ethyl acetate	ACTIVE
123-54-6	pentane-2,4-dione	ACTIVE
34590-94-8	Dipropylene glycol monomethyl ether	ACTIVE
64-17-5	ethanol	ACTIVE
67-56-1	methanol	ACTIVE
67-63-0	propan-2-ol	ACTIVE

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67-64-1	acetone	ACTIVE
71-23-8	propan-1-ol	ACTIVE
71-36-3	butan-1-ol	ACTIVE
78-83-1	butanol	ACTIVE
78-93-3	butanone	ACTIVE
79-20-9	methyl acetate	ACTIVE
95-47-6	o-xylene	ACTIVE
97-86-9	isobutyl methacrylate	ACTIVE
106-42-3	p-xylene	ACTIVE
106-63-8	isobutyl acrylate	ACTIVE
107-98-2	1-methoxy-2-propanol	ACTIVE
108-10-1	4-methylpentan-2-one	ACTIVE
108-21-4	isopropyl acetate	ACTIVE
108-38-3	m-xylene	ACTIVE
108-65-6	2-methoxy-1-methylethyl acetate	ACTIVE
108-88-3	toluene	ACTIVE
109-60-4	propyl acetate	ACTIVE
109-99-9	tetrahydrofuran	ACTIVE
110-19-0	isobutyl acetate	ACTIVE
110-54-3	n-hexane	ACTIVE
110-82-7	cyclohexane	ACTIVE
111-65-9	octane	ACTIVE
111-76-2	2-butoxyethanol	ACTIVE
123-86-4	n-butyl acetate	ACTIVE

· **Hazardous Air Pollutants**

67-56-1	methanol
95-47-6	o-xylene
106-42-3	p-xylene
108-10-1	4-methylpentan-2-one
108-38-3	m-xylene
108-88-3	toluene
110-54-3	n-hexane

· **Proposition 65**

· **Chemicals known to cause cancer:**

108-10-1	4-methylpentan-2-one
109-99-9	tetrahydrofuran

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males:**

110-54-3	n-hexane

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· **Chemicals known to cause developmental toxicity:**	
64-17-5	ethanol
67-56-1	methanol
108-10-1	4-methylpentan-2-one
108-88-3	toluene

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**		
67-64-1	acetone	I
71-36-3	butan-1-ol	D
78-93-3	butanone	I
95-47-6	o-xylene	I
106-42-3	p-xylene	I
108-10-1	4-methylpentan-2-one	I
108-38-3	m-xylene	I
108-88-3	toluene	II
109-99-9	tetrahydrofuran	SC
110-54-3	n-hexane	II
110-82-7	cyclohexane	I
111-76-2	2-butoxyethanol	NL
142-82-5	heptane	D

· **TLV (Threshold Limit Value)**		
64-17-5	ethanol	A3
67-63-0	propan-2-ol	A4
67-64-1	acetone	A4
71-23-8	propan-1-ol	A4
95-47-6	o-xylene	A4
106-42-3	p-xylene	A4
108-38-3	m-xylene	A4
108-88-3	toluene	A4
109-99-9	tetrahydrofuran	A3
111-76-2	2-butoxyethanol	A3
141-32-2	n-butyl acrylate	A4

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**
None of the ingredients is listed.

· **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.
· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

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16 Other information

The information contained in this document is based on Agilent's state of knowledge at the time of preparation. No warranty as to its accurateness, completeness or suitability for a particular purpose is expressed or implied.

· **Contact:**
· **Date of preparation / last revision** 05/29/2025 / 2
· **Abbreviations and acronyms:**
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)
VOC: Volatile Organic Compounds (USA, EU)
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
OSHA: Occupational Safety & Health
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
BEI: Biological Exposure Limit
Flammable Liquids 2: Flammable liquids – Category 2
Skin Irritation 2: Skin corrosion/irritation – Category 2
Eye Damage 1: Serious eye damage/eye irritation – Category 1
Sensitization - Skin 1: Skin sensitisation – Category 1
Carcinogenicity 1A: Carcinogenicity – Category 1A
Toxic to Reproduction 1B: Reproductive toxicity – Category 1B
Specific Target Organ Toxicity - Single Exposure 3: Specific target organ toxicity (single exposure) – Category 3
Specific Target Organ Toxicity - Repeated Exposure 2: Specific target organ toxicity (repeated exposure) – Category 2
Aspiration Hazard 1: Aspiration hazard – Category 1
· *** Data compared to the previous version altered.**