Safety Data Sheet
acc. to OSHA HCS

Printing date 03/31/2019 Version Number 2 Reviewed on 03/31/2019

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1 Identification

· **Product identifier**

· **Trade name: Extractables Standard (1X1 mL)**

· **Part number:** PSM-525A-1
· **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

2 Hazard(s) identification

· **Classification of the substance or mixture**


GHS02 Flame

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


GHS08 Health hazard

Carc. 2 H351 Suspected of causing cancer.


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 GHS08

· **Signal word** Danger

· **Hazard-determining components of labeling:**
acetone
· **Hazard statements**
Highly flammable liquid and vapor.
Causes serious eye irritation.
Suspected of causing cancer.

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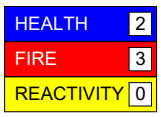
May cause drowsiness or dizziness.

· **Precautionary statements**
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
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.
IF exposed or concerned: Get medical advice/attention.
Call a poison center/doctor if you feel unwell.
If eye irritation persists: Get medical advice/attention.
In case of fire: Use for extinction: CO2, powder or water spray.
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:**		
67-64-1	acetone	99.242%

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87-86-5	pentachlorophenol	0.253%

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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:** 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, 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:**		
67-64-1	acetone	200 ppm
87-86-5	pentachlorophenol	1 mg/m³
131-11-3	dimethyl phthalate	15 mg/m³
118-74-1	hexachlorobenzene	0.006 mg/m³
77-47-4	hexachlorocyclopentadiene	0.03 ppm
84-66-2	diethyl phthalate	15 mg/m³

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84-74-2	dibutyl phthalate	15 mg/m³
117-81-7	di-(2-ethylhexyl) phthalate	10 mg/m³
85-68-7	BBP	15 mg/m³
103-23-1	Di-(2-ethylhexyl) adipate	17 mg/m³

· **PAC-2:**

67-64-1	acetone	3200* ppm
87-86-5	pentachlorophenol	15 mg/m³
131-11-3	dimethyl phthalate	1,600 mg/m³
118-74-1	hexachlorobenzene	14 mg/m³
77-47-4	hexachlorocyclopentadiene	0.55 ppm
84-66-2	diethyl phthalate	300 mg/m³
84-74-2	dibutyl phthalate	1,600 mg/m³
117-81-7	di-(2-ethylhexyl) phthalate	1,000 mg/m³
85-68-7	BBP	77 mg/m³
103-23-1	Di-(2-ethylhexyl) adipate	180 mg/m³

· **PAC-3:**

67-64-1	acetone	5700* ppm
87-86-5	pentachlorophenol	150 mg/m³
131-11-3	dimethyl phthalate	9300* mg/m³
118-74-1	hexachlorobenzene	91 mg/m³
77-47-4	hexachlorocyclopentadiene	1 ppm
84-66-2	diethyl phthalate	1,800 mg/m³
84-74-2	dibutyl phthalate	9300* mg/m³
117-81-7	di-(2-ethylhexyl) phthalate	6,100 mg/m³
85-68-7	BBP	460 mg/m³
103-23-1	Di-(2-ethylhexyl) adipate	1,100 mg/m³

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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.

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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 item 7.

· **Control parameters**

· **Components with limit values that require monitoring at the workplace:**	
67-64-1 acetone	
PEL	Long-term value: 2400 mg/m³, 1000 ppm
REL	Long-term value: 590 mg/m³, 250 ppm
TLV	Short-term value: 1187 mg/m³, 500 ppm Long-term value: 594 mg/m³, 250 ppm BEI
87-86-5 pentachlorophenol	
PEL	Long-term value: 0.5 mg/m³ Skin
REL	Long-term value: 0.5 mg/m³ Skin
TLV	Short-term value: 1* mg/m³ Long-term value: 0.5* mg/m³ Skin; BEI;*inhalable fraction+vapor

· **Ingredients with biological limit values:**	
67-64-1 acetone	
BEI	50 mg/L Medium: urine Time: end of shift Parameter: Acetone (nonspecific)
87-86-5 pentachlorophenol	
BEI	2 mg/g creatinine Medium: urine Time: prior to last shift of workweek Parameter: Total pentachlorophenol (background) 5 mg/L Medium: plasma Time: end of shift Parameter: Free pentachlorophenol (background)

· **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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Avoid contact with the eyes.
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:	Fluid
Color:	Colorless
· **Odor:**	Characteristic
· **Odor threshold:**	Not determined.
· **pH-value:**	Not determined.
· **Change in condition**	
Melting point/Melting range:	-94.7 °C (-138.5 °F)
Boiling point/Boiling range:	55.8-56.6 °C (132.4-133.9 °F)
· **Flash point:**	-17 °C (1.4 °F)
· **Flammability (solid, gaseous):**	Not applicable.
· **Ignition temperature:**	465 °C (869 °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.

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· **Explosion limits:**	
Lower:	2.6 Vol %
Upper:	13 Vol %
· **Vapor pressure at 20 °C (68 °F):**	245.3 hPa (184 mm Hg)
· **Density at 20 °C (68 °F):**	0.80533 g/cm³ (6.72048 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 at 20 °C (68 °F):	32 mPas
Kinematic:	Not determined.
· **Solvent content:**	
Organic solvents:	99.2 %
VOC content:	0.00 % 0.0 g/l / 0.00 lb/gal
Solids content:	0.3 %
· **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	10,680 mg/kg (rat)
Dermal	LD50	37,975 mg/kg (rat)
Inhalative	LC50/4 h	140,427 mg/L (rat)

67-64-1 acetone		
Oral	LD50	5,800 mg/kg (rat)

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Dermal	LD50	20,000 mg/kg (rabbit)
87-86-5 pentachlorophenol		
Oral	LD50	27 mg/kg (rat)
Dermal	LD50	96 mg/kg (rat)
Inhalative	LC50/4 h	355 mg/L (rat)
118-74-1 hexachlorobenzene		
Oral	LD50	10,000 mg/kg (rat)
Inhalative	LC50/4 h	3,600 mg/L (rat)
77-47-4 hexachlorocyclopentadiene		
Oral	LD50	315 mg/kg (rat)
Dermal	LD50	430 mg/kg (rabbit)
Inhalative	LC50/4 h	2 mg/L (rat)

· **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)**		
87-86-5	pentachlorophenol	2B
118-74-1	hexachlorobenzene	2B
117-81-7	di-(2-ethylhexyl) phthalate	2B
85-68-7	BBP	3
103-23-1	Di-(2-ethylhexyl) adipate	3

· **NTP (National Toxicology Program)**		
87-86-5	pentachlorophenol	R
118-74-1	hexachlorobenzene	R
117-81-7	di-(2-ethylhexyl) phthalate	R

· **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

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Do not allow product to reach ground water, water course or sewage system.
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.

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

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14 Transport information

· **Not Regulated, De minimus Quantities**	-
· **UN-Number** · **DOT, IMDG, IATA**	 UN1090
· **UN proper shipping name** · **DOT** · **IMDG, IATA**	 Acetone solution ACETONE solution
· **Transport hazard class(es)**	
· **DOT, IMDG, IATA**	
· **Class** · **Label**	3 Flammable liquids 3
· **Packing group** · **DOT, IMDG, IATA**	 II
· **Environmental hazards:**	Not applicable.
· **Special precautions for user** · **Danger code (Kemler):** · **EMS Number:** · **Stowage Category**	Warning: Flammable liquids 33 F-E,S-D B
· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**	Not applicable.

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· **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 1090 ACETONE SOLUTION, 3, II

15 Regulatory information

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

· **Sara**

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

77-47-4	hexachlorocyclopentadiene

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

87-86-5	pentachlorophenol
131-11-3	dimethyl phthalate
118-74-1	hexachlorobenzene
77-47-4	hexachlorocyclopentadiene
84-74-2	dibutyl phthalate
117-81-7	di-(2-ethylhexyl) phthalate

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

All ingredients are listed.

· **Proposition 65**

· **Chemicals known to cause cancer:**

87-86-5	pentachlorophenol
118-74-1	hexachlorobenzene
117-81-7	di-(2-ethylhexyl) phthalate

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

84-74-2	dibutyl phthalate

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

84-74-2	dibutyl phthalate
117-81-7	di-(2-ethylhexyl) phthalate

· **Chemicals known to cause developmental toxicity:**

118-74-1	hexachlorobenzene
84-74-2	dibutyl phthalate
117-81-7	di-(2-ethylhexyl) phthalate
85-68-7	BBP

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· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**		
67-64-1	acetone	I
87-86-5	pentachlorophenol	L
131-11-3	dimethyl phthalate	D
118-74-1	hexachlorobenzene	B2
77-47-4	hexachlorocyclopentadiene	E, NL
84-66-2	diethyl phthalate	D
84-74-2	dibutyl phthalate	D
117-81-7	di-(2-ethylhexyl) phthalate	B2
85-68-7	BBP	C
103-23-1	Di-(2-ethylhexyl) adipate	C

· **TLV (Threshold Limit Value established by ACGIH)**		
67-64-1	acetone	A4
87-86-5	pentachlorophenol	A3
118-74-1	hexachlorobenzene	A3
77-47-4	hexachlorocyclopentadiene	A4
84-66-2	diethyl phthalate	A4
117-81-7	di-(2-ethylhexyl) phthalate	A3

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**	
117-81-7	di-(2-ethylhexyl) phthalate

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

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.

· **Department issuing SDS:** Document Control / Regulatory
· **Contact:** regulatory@ultrasci.com
· **Date of preparation / last revision** 03/31/2019 / 1
· **Abbreviations and acronyms:**
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
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
vPvB: very Persistent and very Bioaccumulative
NIOSH: National Institute for Occupational Safety
OSHA: Occupational Safety & Health

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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
Carc. 2: Carcinogenicity – Category 2
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
· *** Data compared to the previous version altered.**