

Safety Data Sheet acc. to OSHA HCS

Printing date 03/29/2019

Version Number 2

Reviewed on 03/29/2019

1 Identification

- **Product identifier**
- **Trade name:** Update Standard with Pentachloroethane (1X1 mL)
- **Part number:** DWM-524S-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.



GHS06 Skull and crossbones

Acute Tox. 3 H311 Toxic in contact with skin.

Acute Tox. 3 H331 Toxic if inhaled.



GHS08 Health hazard

Carc. 2 H351 Suspected of causing cancer.

Repr. 1B H360 May damage fertility or the unborn child.

STOT SE 1 H370 Causes damage to organs.

STOT RE 1 H372 Causes damage to the blood through prolonged or repeated exposure.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

Skin Sens. 1 H317 May cause an allergic skin reaction.

- **Label elements**

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

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· Hazard pictograms

· Signal word Danger
· Hazard-determining components of labeling:

methanol
 nitrobenzene
 methacrylonitrile
 chloroacetonitrile
 acrylonitrile
 methyl methacrylate
 ethyl methacrylate
 methyl acrylate

· Hazard statements

Highly flammable liquid and vapor.
 Harmful if swallowed.
 Toxic in contact with skin or if inhaled.
 May cause an allergic skin reaction.
 Suspected of causing cancer.
 May damage fertility or the unborn child.
 Causes damage to organs.
 Causes damage to the blood through prolonged or repeated exposure.

· 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.
 Do not breathe dust/fume/gas/mist/vapors/spray.
 Wash thoroughly after handling.
 Do not eat, drink or smoke when using this product.
 Use only outdoors or in a well-ventilated area.
 Contaminated work clothing must not be allowed out of the workplace.
 Wear protective gloves/protective clothing/eye protection/face protection.
 If swallowed: Call a poison center/doctor if you feel unwell.
 Rinse mouth.
 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 exposed or concerned: Get medical advice/attention.
 Specific treatment (see on this label).
 Get medical advice/attention if you feel unwell.
 Take off immediately all contaminated clothing and wash it before reuse.
 If skin irritation or rash occurs: 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.

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Store locked up.

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

- **Classification system:**

- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**



- **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:**

67-56-1	methanol	83.313%
107-14-2	chloroacetonitrile	5.057%
98-95-3	nitrobenzene	2.528%
107-12-0	propionitrile	2.528%
513-88-2	1,1-dichloroacetone	1.264%
79-46-9	2-nitropropane	0.506%
109-99-9	tetrahydrofuran	0.506%
107-13-1	acrylonitrile	0.506%
80-62-6	methyl methacrylate	0.506%
107-05-1	3-chloropropene	0.253%
75-15-0	carbon disulphide	0.253%
97-63-2	ethyl methacrylate	0.253%
126-98-7	methacrylonitrile	0.253%
74-88-4	methyl iodide	0.253%
96-33-3	methyl acrylate	0.253%
67-72-1	hexachloroethane	0.253%
76-01-7	pentachloroethane	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.
 Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
 Remove breathing apparatus only after contaminated clothing have been completely removed.
 In case of irregular breathing or respiratory arrest provide artificial respiration.
- **After inhalation:**
 Supply fresh air or oxygen; call for 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:** Immediately call a 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.
- **Advice for firefighters**
- **Protective equipment:** Mouth respiratory protective device.

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).
 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:**

67-56-1	methanol	530 ppm
107-14-2	chloroacetonitrile	0.45 ppm

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98-95-3	nitrobenzene	3 ppm
107-12-0	propionitrile	0.27 ppm
79-46-9	2-nitropropane	30 ppm
109-99-9	tetrahydrofuran	100 ppm
107-13-1	acrylonitrile	0.15 ppm
110-57-6	trans-2,3-dichlorobut-2-ene	0.078 ppm
80-62-6	methyl methacrylate	17 ppm
1634-04-4	tert-butyl methyl ether	50 ppm
107-05-1	3-chloropropene	2.8 ppm
75-15-0	carbon disulphide	13 ppm
97-63-2	ethyl methacrylate	5.5 ppm
126-98-7	methacrylonitrile	0.091 ppm
74-88-4	methyl iodide	25 ppm
96-33-3	methyl acrylate	6 ppm
60-29-7	diethyl ether	500 ppm
109-69-3	1-chlorobutane	4.1 ppm
67-72-1	hexachloroethane	3 ppm
76-01-7	pentachloroethane	130 mg/m ³

· PAC-2:

67-56-1	methanol	2,100 ppm
107-14-2	chloroacetonitrile	5.0 ppm
98-95-3	nitrobenzene	20 ppm
107-12-0	propionitrile	3.0 ppm
79-46-9	2-nitropropane	380 ppm
109-99-9	tetrahydrofuran	500 ppm
107-13-1	acrylonitrile	1.7 ppm
110-57-6	trans-2,3-dichlorobut-2-ene	0.86 ppm
80-62-6	methyl methacrylate	120 ppm
1634-04-4	tert-butyl methyl ether	570 ppm
107-05-1	3-chloropropene	54 ppm
75-15-0	carbon disulphide	160 ppm
97-63-2	ethyl methacrylate	61 ppm
126-98-7	methacrylonitrile	1.0 ppm
74-88-4	methyl iodide	50 ppm
96-33-3	methyl acrylate	170 ppm
60-29-7	diethyl ether	3200* ppm
109-69-3	1-chlorobutane	45 ppm
67-72-1	hexachloroethane	36 ppm
76-01-7	pentachloroethane	730 mg/m ³

· PAC-3:

67-56-1	methanol	7200* ppm
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107-14-2	chloroacetonitrile	15 ppm
98-95-3	nitrobenzene	200 ppm
107-12-0	propionitrile	9.1 ppm
79-46-9	2-nitropropane	2,300 ppm
109-99-9	tetrahydrofuran	5000* ppm
107-13-1	acrylonitrile	28 ppm
110-57-6	trans-2,3-dichlorobut-2-ene	3.8 ppm
80-62-6	methyl methacrylate	570 ppm
1634-04-4	tert-butyl methyl ether	5300* ppm
107-05-1	3-chloropropene	140 ppm
75-15-0	carbon disulphide	480 ppm
97-63-2	ethyl methacrylate	370 ppm
126-98-7	methacrylonitrile	3.1 ppm
74-88-4	methyl iodide	125 ppm
96-33-3	methyl acrylate	1,000 ppm
60-29-7	diethyl ether	19000*** ppm
109-69-3	1-chlorobutane	340 ppm
67-72-1	hexachloroethane	300 ppm
76-01-7	pentachloroethane	1,200 mg/m ³

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.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.

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· Control parameters
· Components with limit values that require monitoring at the workplace:
67-56-1 methanol

PEL	Long-term value: 260 mg/m ³ , 200 ppm
REL	Short-term value: 325 mg/m ³ , 250 ppm Long-term value: 260 mg/m ³ , 200 ppm Skin
TLV	Short-term value: 328 mg/m ³ , 250 ppm Long-term value: 262 mg/m ³ , 200 ppm Skin; BEI

98-95-3 nitrobenzene

PEL	Long-term value: 5 mg/m ³ , 1 ppm Skin
REL	Long-term value: 5 mg/m ³ , 1 ppm Skin
TLV	Long-term value: 5 mg/m ³ , 1 ppm Skin; BEIm

107-12-0 propionitrile

PEL	Long-term value: 5 mg/m ³ as CN; Skin
REL	Long-term value: 14 mg/m ³ , 6 ppm

79-46-9 2-nitropropane

PEL	Long-term value: 90 mg/m ³ , 25 ppm
REL	See Pocket Guide App. A
TLV	Long-term value: 36 mg/m ³ , 10 ppm

109-99-9 tetrahydrofuran

PEL	Long-term value: 590 mg/m ³ , 200 ppm
REL	Short-term value: 735 mg/m ³ , 250 ppm Long-term value: 590 mg/m ³ , 200 ppm
TLV	Short-term value: 295 mg/m ³ , 100 ppm Long-term value: 147 mg/m ³ , 50 ppm Skin

107-13-1 acrylonitrile

PEL	Long-term value: 2 ppm Ceiling limit value: 10 ppm Skin; see 29 CFR 1910.1045
REL	Long-term value: 1 ppm Ceiling limit value: 10* ppm *15-min; Skin; See Pocket Guide App. A
TLV	Long-term value: 4.3 mg/m ³ , 2 ppm Skin

80-62-6 methyl methacrylate

PEL	Long-term value: 410 mg/m ³ , 100 ppm
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REL	Long-term value: 410 mg/m ³ , 100 ppm
TLV	Short-term value: 410 mg/m ³ , 100 ppm Long-term value: 205 mg/m ³ , 50 ppm DSEN

107-05-1 3-chloropropene

PEL	Long-term value: 3 mg/m ³ , 1 ppm
REL	Short-term value: 6 mg/m ³ , 2 ppm Long-term value: 3 mg/m ³ , 1 ppm
TLV	Short-term value: 6 mg/m ³ , 2 ppm Long-term value: 3 mg/m ³ , 1 ppm Skin

75-15-0 carbon disulphide

PEL	Long-term value: 20 ppm Ceiling limit value: 30; 100* ppm *30-min peak per 8-hr shift
REL	Short-term value: 30 mg/m ³ , 10 ppm Long-term value: 3 mg/m ³ , 1 ppm Skin
TLV	Long-term value: 3.13 mg/m ³ , 1 ppm Skin, BEI

126-98-7 methacrylonitrile

REL	Long-term value: 3 mg/m ³ , 1 ppm Skin
TLV	Long-term value: 2.7 mg/m ³ , 1 ppm Skin

74-88-4 methyl iodide

PEL	Long-term value: 28 mg/m ³ , 5 ppm Skin
REL	Long-term value: 10 mg/m ³ , 2 ppm Skin; See Pocket Guide App. A
TLV	Long-term value: 12 mg/m ³ , 2 ppm Skin

96-33-3 methyl acrylate

PEL	Long-term value: 35 mg/m ³ , 10 ppm Skin
REL	Long-term value: 35 mg/m ³ , 10 ppm Skin
TLV	Long-term value: 7 mg/m ³ , 2 ppm Skin; DSEN

67-72-1 hexachloroethane

PEL	Long-term value: 10 mg/m ³ , 1 ppm Skin
REL	Long-term value: 10 mg/m ³ , 1 ppm Skin; See Pocket Guide Apps. A and C

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TLV	Long-term value: 9.7 mg/m ³ , 1 ppm Skin
76-01-7 pentachloroethane	
REL	Handle with caution; See Pocket Guide App. C
Ingredients with biological limit values:	
67-56-1 methanol	
BEI	15 mg/L Medium: urine Time: end of shift Parameter: Methanol (background, nonspecific)
98-95-3 nitrobenzene	
BEI	5 mg/g creatinine Medium: urine Time: end of shift at end of workweek Parameter: Total p-nitrophenol (nonspecific) 1.5 % of hemoglobin Medium: blood Time: end of shift Parameter: Methemoglobin (background, nonspecific, semi-quantitative)
109-99-9 tetrahydrofuran	
BEI	2 mg/L Medium: urine Time: end of shift Parameter: Tetrahydrofuran
75-15-0 carbon disulphide	
BEI	0.5 mg/g creatinine Medium: urine Time: end of shift Parameter: 2-Thioxothiazolidine-4-carboxylic acid (background, nonspecific)

· **Additional information:** The lists that were valid during the creation were used as basis.

· **Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

- Keep away from foodstuffs, beverages and feed.
- Immediately remove all soiled and contaminated clothing.
- Wash hands before breaks and at the end of work.
- Store protective clothing separately.
- Avoid contact with the 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

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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

9 Physical and chemical properties

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

- **General Information**

- **Appearance:**

Form:	Fluid
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:	64.7 °C (148.5 °F)

- **Flash point:** 9 °C (48.2 °F)

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

- **Ignition temperature:** 455 °C (851 °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:	5.5 Vol %
Upper:	44 Vol %

- **Vapor pressure at 20 °C (68 °F):** 100 hPa (75 mm Hg)

- **Density at 20 °C (68 °F):** 0.85133 g/cm³ (7.10435 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.

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- | | |
|---|-------------------------|
| · Partition coefficient (n-octanol/water): Not determined. | |
| · Viscosity: | |
| Dynamic: | Not determined. |
| Kinematic: | Not determined. |
| · Solvent content: | |
| Organic solvents: | 85.1 % |
| VOC content: | 85.08 % |
| | 724.3 g/l / 6.04 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	865 mg/kg
Dermal	LD50	>897 mg/kg
Inhalative	LC50/4 h	>3.2 mg/L

67-56-1 methanol

Oral	LD50	5,628 mg/kg (rat)
Dermal	LD50	15,800 mg/kg (rabbit)

107-14-2 chloroacetonitrile

Oral	LD50	220 mg/kg (rat)
Dermal	LD50	71 mg/kg (rabbit)

98-95-3 nitrobenzene

Oral	LD50	390 mg/kg (rat)
Dermal	LD50	2,100 mg/kg (rat)
Inhalative	LC50/4 h	556 mg/L (rat)

107-12-0 propionitrile

Oral	LD50	39 mg/kg (rat)
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Dermal	LD50	210 mg/kg (rabbit)
513-88-2 1,1-dichloroacetone		
Oral	LD50	250 mg/kg (mouse)
79-46-9 2-nitropropane		
Oral	LD50	500 mg/kg (rat)
109-99-9 tetrahydrofuran		
Oral	LD50	2,500 mg/kg (rat)
107-13-1 acrylonitrile		
Oral	LD50	82 mg/kg (rat)
Dermal	LD50	226 mg/kg (rabbit)
Inhalative	LC50/4 h	2.09 mg/L (rat)
80-62-6 methyl methacrylate		
Oral	LD50	7,900 mg/kg (rat)
Dermal	LD50	>5,000 mg/kg (rabbit)
Inhalative	LC50/4 h	78,000 mg/L (rat)
107-05-1 3-chloropropene		
Oral	LD50	275 mg/kg (rat)
Dermal	LD50	398 mg/kg (rabbit)
75-15-0 carbon disulphide		
Oral	LD50	1,200 mg/kg (rat)
Inhalative	LC50/4 h	10.35 mg/L (rat)
97-63-2 ethyl methacrylate		
Oral	LD50	1,223 mg/kg (rat)
Inhalative	LC50/4 h	8,300 mg/L (rat)
126-98-7 methacrylonitrile		
Oral	LD50	250 mg/kg (rat)
Dermal	LD50	320 mg/kg (rabbit)
74-88-4 methyl iodide		
Oral	LD50	76 mg/kg (rat)
Inhalative	LC50/4 h	1,300 mg/L (rat)
96-33-3 methyl acrylate		
Oral	LD50	300 mg/kg (rat)
Dermal	LD50	1,243 mg/kg (rabbit)
67-72-1 hexachloroethane		
Dermal	LD50	32,000 mg/kg (rabbit)

- **Primary irritant effect:**

- **on the skin:** No irritant effect.

- **on the eye:** No irritating effect.

- **Sensitization:** Sensitization possible through skin contact.

- **Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:

Toxic

Harmful

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Irritant

· Carcinogenic categories
· IARC (International Agency for Research on Cancer)

107-14-2	chloroacetonitrile	3
98-95-3	nitrobenzene	2B
79-46-9	2-nitropropane	2B
107-13-1	acrylonitrile	2B
110-57-6	trans-2,3-dichlorobut-2-ene	3
80-62-6	methyl methacrylate	3
1634-04-4	tert-butyl methyl ether	3
107-05-1	3-chloropropene	3
74-88-4	methyl iodide	3
96-33-3	methyl acrylate	3
67-72-1	hexachloroethane	2B
76-01-7	pentachloroethane	3

· NTP (National Toxicology Program)

98-95-3	nitrobenzene	R
79-46-9	2-nitropropane	R
107-13-1	acrylonitrile	R
67-72-1	hexachloroethane	R

· OSHA-Ca (Occupational Safety & Health Administration)

107-13-1	acrylonitrile	
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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 3 (Self-assessment): extremely hazardous for water
 Do not allow product to reach ground water, water course or sewage system, even in small quantities.
 Danger to drinking water if even extremely 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.

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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.

*** 14 Transport information**

· Not Regulated, De minimus Quantities	-
· UN-Number · DOT, IMDG, IATA	UN1230
· UN proper shipping name · DOT · IMDG, IATA	Methanol solution METHANOL solution
· Transport hazard class(es) · DOT	
 	
· Class · Label	3 Flammable liquids 3, 6.1
· IMDG	
 	
· Class · Label	3 Flammable liquids 3/6.1
· IATA	
 	
· Class · Label	3 Flammable liquids 3 (6.1)
· Packing group · DOT, IMDG, IATA	II
· Environmental hazards:	Not applicable.
· Special precautions for user · Danger code (Kemler):	Warning: Flammable liquids 336

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· EMS Number:	F-E,S-D
· Stowage Category	B
· Stowage Code	SW2 Clear of living quarters.
· 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: 1 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 1230 METHANOL SOLUTION, 3 (6.1), II

15 Regulatory information

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

· Section 355 (extremely hazardous substances):

98-95-3	nitrobenzene
107-12-0	propionitrile
107-13-1	acrylonitrile
110-57-6	trans-2,3-dichlorobut-2-ene
75-15-0	carbon disulphide
126-98-7	methacrylonitrile

· Section 313 (Specific toxic chemical listings):

67-56-1	methanol
98-95-3	nitrobenzene
79-46-9	2-nitropropane
107-13-1	acrylonitrile
110-57-6	trans-2,3-dichlorobut-2-ene
80-62-6	methyl methacrylate
1634-04-4	tert-butyl methyl ether
107-05-1	3-chloropropene
75-15-0	carbon disulphide
126-98-7	methacrylonitrile
74-88-4	methyl iodide
96-33-3	methyl acrylate
67-72-1	hexachloroethane
76-01-7	pentachloroethane

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· TSCA (Toxic Substances Control Act):

67-56-1	methanol
107-14-2	chloroacetonitrile
98-95-3	nitrobenzene
107-12-0	propionitrile
79-46-9	2-nitropropane
109-99-9	tetrahydrofuran
107-13-1	acrylonitrile
110-57-6	trans-2,3-dichlorobut-2-ene
80-62-6	methyl methacrylate
1634-04-4	tert-butyl methyl ether
107-05-1	3-chloropropene
75-15-0	carbon disulphide
97-63-2	ethyl methacrylate
126-98-7	methacrylonitrile
74-88-4	methyl iodide
96-33-3	methyl acrylate
60-29-7	diethyl ether
109-69-3	1-chlorobutane
67-72-1	hexachloroethane
76-01-7	pentachloroethane

· TSCA new (21st Century Act): (Substances not listed)

107-14-2	chloroacetonitrile
513-88-2	1,1-dichloroacetone
126-98-7	methacrylonitrile

· Proposition 65
· Chemicals known to cause cancer:

98-95-3	nitrobenzene
79-46-9	2-nitropropane
107-13-1	acrylonitrile
74-88-4	methyl iodide
67-72-1	hexachloroethane

· Chemicals known to cause reproductive toxicity for females:

75-15-0	carbon disulphide
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· Chemicals known to cause reproductive toxicity for males:

98-95-3	nitrobenzene
75-15-0	carbon disulphide

· Chemicals known to cause developmental toxicity:

67-56-1	methanol
75-15-0	carbon disulphide

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· Carcinogenic categories
· EPA (Environmental Protection Agency)

98-95-3	nitrobenzene	L
109-99-9	tetrahydrofuran	SC
107-13-1	acrylonitrile	B1
80-62-6	methyl methacrylate	E, NL
107-05-1	3-chloropropene	C
96-33-3	methyl acrylate	D
109-69-3	1-chlorobutane	D
67-72-1	hexachloroethane	L

· TLV (Threshold Limit Value established by ACGIH)

98-95-3	nitrobenzene	A3
79-46-9	2-nitropropane	A3
109-99-9	tetrahydrofuran	A3
107-13-1	acrylonitrile	A3
80-62-6	methyl methacrylate	A4
1634-04-4	tert-butyl methyl ether	A3
107-05-1	3-chloropropene	A3
75-15-0	carbon disulphide	A4
96-33-3	methyl acrylate	A4
67-72-1	hexachloroethane	A3

· NIOSH-Ca (National Institute for Occupational Safety and Health)

79-46-9	2-nitropropane
107-13-1	acrylonitrile
74-88-4	methyl iodide
67-72-1	hexachloroethane

· National regulations:
· Additional classification according to Decree on Hazardous Materials:

Carcinogenic hazardous material group III (dangerous).

· 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.

· Date of preparation / last revision 03/29/2019 / 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

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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
Flam. Liq. 2: Flammable liquids – Category 2
Acute Tox. 4: Acute toxicity – Category 4
Acute Tox. 3: Acute toxicity – Category 3
Skin Sens. 1: Skin sensitisation – Category 1
Carc. 2: Carcinogenicity – Category 2
Repr. 1B: Reproductive toxicity – Category 1B
STOT SE 1: Specific target organ toxicity (single exposure) – Category 1
STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1

· * **Data compared to the previous version altered.**

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