

Printing date 07/05/2024 Version Number 4 Reviewed on 07/05/2024

#### 1 Identification

· Product identifier

· Trade name: Phenols Standard (1X1 mL)

· Part number: US-210-1

· Restrictions

This chemical/product is not and cannot be distributed in commerce (as defined in TSCA section 3(5)) or processed (as defined in TSCA section 3(13)) for consumer paint or coating removal.

- · 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 identification

· Classification of the substance or mixture



GHS08 Health hazard

Carcinogenicity - Category 1A H350 May cause cancer.

Reproductive Toxicity - Category 1B H360 May damage fertility or the unborn child.

Specific Target Organ Toxicity - Repeated Exposure - H373 May cause damage to organs through prolonged

Category 2 or repeated exposure.



GHS07

Skin Irritation - Category 2 H315 Causes skin irritation.

Eye Irritation - Category 2A H319 Causes serious eye irritation.

Skin Sensitizer - Category 1 H317 May cause an allergic skin reaction.

Specific Target Organ Toxicity - Single Exposure - H335 May cause respiratory irritation.

Category 3

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





GHS07

GHS08

· Signal word Danger

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

dichloromethane

dinoseb

pentachlorophenol 2,4,6-trichlorophenol

**DNOC** 

#### · Hazard statements

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H317 May cause an allergic skin reaction.

H350 May cause cancer.

H360 May damage fertility or the unborn child.

H335 May cause respiratory irritation.

H373 May cause damage to organs through prolonged or repeated exposure.

#### · Precautionary statements

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P103 Read label before use.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

Wear protective gloves/protective clothing/eye protection/face protection. P280

Wash thoroughly after handling. P264

Use only outdoors or in a well-ventilated area. P271

Contaminated work clothing should not be allowed out of the workplace. P272

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present

and easy to do. Continue rinsing.

Specific treatment (see on this label). P321

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Call a poison center/doctor if you feel unwell. P312

P308+P313 IF exposed or concerned: Get medical advice/attention. P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

P337+P313 If eye irritation persists: Get medical advice/attention. Get medical advice/attention if you feel unwell. P314

P302+P352 If on skin: Wash with plenty of water.

P362+P364 Take off contaminated clothing and wash it before reuse.

P405 Store locked up.

Store in a well-ventilated place. Keep container tightly closed. P403+P233

Dispose of contents/container in accordance with local/regional/national/international P501

regulations.

#### · Classification system:

#### · NFPA ratings (scale 0 - 4)



Health = 2Fire = 0Reactivity = 0

#### · HMIS-ratings (scale 0 - 4)



Health = \*2Fire = 0



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### 3 Composition/Information on ingredients

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

· Dangerou	· Dangerous components:		
75-09-2	dichloromethane	80-100% w/w *	
51-28-5	2,4-dinitrophenol	0.1-1% w/w *	
58-90-2	2,3,4,6-tetrachlorophenol	0.1-1% w/w *	
59-50-7	chlorocresol	0.1-1% w/w *	
	pentachlorophenol	0.1-1% w/w *	
88-06-2	2,4,6-trichlorophenol	0.1-1% w/w *	
88-85-7	dinoseb	0.1-1% w/w *	
95-48-7	o-cresol	0.1-1% w/w *	
100-02-7	4-nitrophenol	0.1-1% w/w *	
105-67-9	2,4-xylenol	0.1-1% w/w *	
106-44-5	p-cresol	0.1-1% w/w *	
108-39-4	m-cresol	0.1-1% w/w *	
108-95-2	phenol	0.1-1% w/w *	
120-83-2	2,4-dichlorophenol	0.1-1% w/w *	
534-52-1	DNOC	0.1-1% w/w *	

<sup>\*</sup> Actual concentration ranges are withheld as a trade secret.

### 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. 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: Use fire fighting measures that suit the environment.

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· 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.
- 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 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.

### 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 respiratory protective device available.
- · Conditions for safe storage, including any incompatibilities
- · Storage:
- Requirements to be met by storerooms and receptacles: No special requirements.
- · Information about storage in one common storage facility: Not required.
- · Further information about storage conditions: Keep receptacle tightly sealed.
- · 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 section 7.
- · Control parameters
- · Components with limit values that require monitoring at the workplace:

#### 75-09-2 dichloromethane

EL TWA: 25 ppm

IARC 2A

EV TWA: 175 mg/m<sup>3</sup>, 50 ppm

#### 87-86-5 pentachlorophenol

EL TWA: 0.5 mg/m<sup>3</sup>

Skin, IARC 1

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EV	TWA: 0.5 mg/m <sup>3</sup>
	Skin
88-0	06-2 2,4,6-trichlorophenol
EL	IARC 2B
95-4	48-7 o-cresol
EL	TWA: 10 mg/m <sup>3</sup>
	Skin
105	-67-9 2,4-xylenol
EL	S(D)
106	-44-5 p-cresol
EL	TWA: 10 mg/m <sup>3</sup>
	Skin
108	-39-4 m-cresol
EL	TWA: 10 mg/m <sup>3</sup>
	Skin
108	-95-2 phenol
EL	TWA: 5 ppm
	Skin
EV	TWA: 19 mg/m <sup>3</sup> , 5 ppm
	Skin
534	-52-1 DNOC
EL	TWA: 0.2 mg/m <sup>3</sup>
	Skin
EV	TWA: 0.2 mg/m <sup>3</sup>
	Skin

- · Additional information: The lists that were valid during the creation were used as basis.
- · Exposure controls
- · Personal protective equipment:
- $\cdot \ General \ protective \ and \ hygienic \ measures:$

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 exceeding 4 hrs. Supplier recommendations should be followed.

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# Safety Data Sheet according to HPR, Schedule 1

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· 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: Safety glasses



Tightly sealed goggles

### 9 Physical and chemical properties

- · Information on basic physical and chemical properties
- · General Information
- · Appearance:

Form: Fluid
Color: Colorless
Odor: Like chlorine
Odor threshold: Not determined.

roll-value: Not determined.

· pH-value:
· Change in condition

Melting point/Melting range: -95.1 °C

**Boiling point/Boiling range:** 40 °C

Flash point: Not applicable.Flammability (solid, gaseous): Not applicable.

· Auto igniting: 605 °C

· **Decomposition temperature:** Not determined.

• **Ignition temperature:** Product is not selfigniting.

· Danger of explosion: Product does not present an explosion hazard.

· Explosion limits:

**Lower:** 13 Vol % **Upper:** 22 Vol %

· Vapor pressure at 20 °C: 360 hPa

Density at 20 °C:
 Relative density
 Vapor density
 Evaporation rate
 1.3 g/cm³
 Not determined.
 Not determined.

 $\cdot$  Solubility in / Miscibility with

**Water at 20 °C:** 20 g/l

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

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· Viscosity: Dynamic at 20 °C: Kinematic:	0.43 mPas Not determined.
· Solvent content: Organic solvents:	97.4 %
Solids content:	2.7 %
· 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	· LD/LC50 values that are relevant for classification:		
ATE (Acu	ite Toxicit	y Estimate)	
Oral	LD50	2,176 mg/kg	
Dermal	LD50	17,409 mg/kg	
Inhalative	LC50/4 h	27.6 mg/L	
75-09-2 di	ichloromet	thane	
Oral	LD50	1,600 mg/kg (rat)	
Dermal	LD50	>2,000 mg/kg (rat)	
Inhalative	LC50/4 h	88 mg/L (rat)	
51-28-5 2,	51-28-5 2,4-dinitrophenol		
Oral	LD50	30 mg/kg (ATE)	
		30 mg/kg (rat)	
Dermal	LD50	300 mg/kg (ATE)	
58-90-2 2,	3,4,6-tetra	chlorophenol	
Oral	LD50	140 mg/kg (rat)	
Dermal	LD50	250 mg/kg (rabbit)	
59-50-7 cl	ilorocreso	i	
Oral	LD50	1,830 mg/kg (rat)	
Dermal	LD50	>2,000 mg/kg (rat)	
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_	entachloro	-	
Oral	LD50	27 mg/kg (rat)	
Dermal	LD50	96 mg/kg (rat)	
		355 mg/L (rat)	
	2,4,6-trichle	-	
Oral	LD50	820 mg/kg (rat)	
88-85-7 d	linoseb		
Oral	LD50	27 mg/kg (rat)	
Dermal	LD50	217.5 mg/kg (rat)	
95-48-7 o	-cresol		
Oral	LD50	121 mg/kg (rat)	
Dermal	LD50	890 mg/kg (rabbit)	
100-02-7	4-nitrophe	nol	
Oral	LD50	202 mg/kg (rat)	
Dermal	LD50	1,024 mg/kg (rat)	
105-67-9	2,4-xyleno		
Oral	LD50	3,200 mg/kg (rat)	
Dermal	LD50	1,040 mg/kg (rat)	
106-44-5	p-cresol		
Oral	LD50	207 mg/kg (rat)	
Dermal	LD50	301 mg/kg (rabbit)	
108-39-4	m-cresol		
Oral	LD50	242 mg/kg (rat)	
Dermal	LD50	2,050 mg/kg (rabbit)	
108-95-2	phenol		
Oral	LD50	282 mg/kg (rat)	
Dermal	LD50	660 mg/kg (rat)	
		850 mg/kg (rabbit)	
120-83-2	2,4-dichlor		
Oral	LD50	47 mg/kg (rat)	
534-52-1	DNOC	/	
Oral	LD50	7 mg/kg (rat)	
Dermal	LD50	200 mg/kg (rat)	
		1,000 mg/kg (rabbit)	

- Primary irritant effect:
- on the skin: Irritant to skin and mucous membranes.
- · on the eye: 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: Irritant

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#### · Carcinogenic categories

eme categories	
ternational Agency for Research on Cancer)	
dichloromethane	2A
2,3,4,6-tetrachlorophenol	2B
2,6-dichlorophenol	2B
pentachlorophenol	1
2,4,6-trichlorophenol	2B
2-chlorophenol	2B
2,4,5-trichlorophenol	2B
phenol	3
2,4-dichlorophenol	2B
tional Toxicology Program)	
lichloromethane	R
pentachlorophenol	R
2,4,6-trichlorophenol	R
	dichloromethane  2,3,4,6-tetrachlorophenol  2,6-dichlorophenol  pentachlorophenol  2,4,6-trichlorophenol  2-chlorophenol  2,4,5-trichlorophenol  phenol  2,4-dichlorophenol  tional Toxicology Program)  dichloromethane  pentachlorophenol

### 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.

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 minimis Quantities	-	
· UN-Number · DOT/TDG, ADR, ADN, IMDG, IATA	not regulated	
· UN proper shipping name · DOT/TDG, ADR, ADN, IMDG, IATA	not regulated	
· Transport hazard class(es)		
· DOT/TDG, ADR, ADN, IMDG, IATA		
Class	not regulated	
· Packing group · DOT/TDG, ADR, IMDG, IATA	not regulated	
· Environmental hazards:	Not applicable.	
· Special precautions for user	Not applicable.	
Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable.		

not regulated

## 15 Regulatory information

· UN "Model Regulation":

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

· Section 3	55 (extremely hazardous substances):
88-85-7	dinoseb
95-48-7	o-cresol
108-95-2	phenol
534-52-1	DNOC
· Section 3	13 (Specific toxic chemical listings):
75-09-2	dichloromethane
51-28-5	2,4-dinitrophenol
	2,3,4,6-tetrachlorophenol
	2,6-dichlorophenol
	pentachlorophenol
88-06-2	2,4,6-trichlorophenol
88-75-5	2-nitrophenol
88-85-7	dinoseb
95-48-7	o-cresol
95-57-8	2-chlorophenol
95-95-4	2,4,5-trichlorophenol
100-02-7	4-nitrophenol
105-67-9	2,4-xylenol

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106-44-5	p-cresol
108-39-4	m-cresol
108-95-2	phenol
120-83-2	2,4-dichlorophenol
534-52-1	DNOC

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

This chemical/product is not and cannot be distributed in commerce (as defined in TSCA section 3(5)) or processed (as defined in TSCA section 3(13)) for consumer paint or coating removal.

All components have the value ACTIVE.

#### · Canadian substance listings:

· Canadiai	· Canadian Domestic Substances List (DSL)		
75-09-2	dichloromethane		
51-28-5	2,4-dinitrophenol		
58-90-2	2,3,4,6-tetrachlorophenol		
59-50-7	chlorocresol		
65-85-0	benzoic acid		
	pentachlorophenol		
88-75-5	2-nitrophenol		
88-85-7	dinoseb		
95-48-7	o-cresol		
95-57-8	2-chlorophenol		
100-02-7	4-nitrophenol		
106-44-5	p-cresol		
108-39-4	m-cresol		
108-95-2	phenol		
120-83-2	2,4-dichlorophenol		
534-52-1	DNOC		

#### · Canadian Non-Domestic Substances List (NDSL)

2,4,6-trichlorophenol

95-95-4 2,4,5-trichlorophenol

105-67-9 2,4-xylenol

#### · Canadian Ingredient Disclosure list (limit 0.1%)

75-09-2	dichloromethane

51-28-5 2,4-dinitrophenol

### · Canadian Ingredient Disclosure list (limit 1%)

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.

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· 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.

- · Contact:
- · Date of the latest revision of the safety data sheet 07/05/2024 / 3
- · Abbreviations and acronyms:

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative

\* Data compared to the previous version altered.

CA -